Public buildings for refugees : a dictionary

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AUDE BUILT
ADE ENVIRONMENT

Public Building for refugees

dictionary

Editors: Prof. Ir. Juliette Bekkering, Ir. Kornelia Dimitrova

Public Building for Refugees

a dictionary

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Foreword

At this moment in history we are confronted with over 60 million refugees, the highest number of displaced persons ever, due to war and conflicts, drought or flooding caused by climate change. To house displaced people, a large variety of solutions have been developed that cater primary needs. But more long-term, public and community facilities have been neglected as an important mean of creating an environment of hope and dignity.

With years of experience in rapidly deployable emergency sheltering for long-term use and triggered by the European migrant crisis, the Eindhoven University of Technology has decided to investigate the role of public buildings in migrant camps. With the graduation studio "Public Buildings for Refugees" we aim to develop designs and prototypes of public buildings that can empower the life of displaced persons. Although refugee-camps are envisioned to provide short-term accommodation, the reality shows that people tend to stay there for years. The average stay in refugee camps has been estimated by UNHCR on 17 years. The permanency of these camps asks for long term solutions with not only housing but adequate community facilities, public space and public buildings to empower personal socio-economic development and enforcement of communities. Within this graduation studio we will design solutions for these public buildings.

In order to develop a prototype of a so-called "Public Building for refugees", a thorough research and analysis of existing camps of different kinds around the world has been done; a spectrum of architectural typologies of public buildings that could empower the life of the inhabitants in camps has been analysed and coinciding building methods and building technologies of varying form, from temporal to semi-permanent till permanent buildings have been studied. All together these studies have been assembled in the book: "The catalogue". With the catalogue we aim to give an overview and broader vision of differenttopicsthatareofrelevance while designing public buildings for refugees.
The research "Public Buildings for refugees" is endorsed by a 4TU-Lighthouse grant. The graduation studio from TU Eindhoven is led by the chair of Architectural Design and Engineering in collaboration with the chair of Public Building of the TU Delft.

The chairs are represented by Juliette Bekkering (TU Eindhoven) and Michiel Riedijk (TU Delft)

by Juliette Bekkering

Introduction

The research area regarding refugees is well-covered by today's media and many researchers have invested time in a wide range of subjects within this field of research. At the Technical University of Eindhoven a graduation studio has been composed by ir. J.J.P.M van Hoof and prof.ir. J.D. Bekkering: 'A Public Building for Refugees'. As a kick-off assignment the task was to get familiar with the research area through the development of a dictionary. How was the dictionary built up?
A terminology from A to Z was conceived, through multiple group discussions, to grasp informations related to the subject of the graduation studio. The letters were divided amongst twelve students with the result being a topic-related dictionary.

a
Architecture of
public buildings

Definition

The need for public buildings in the refugee camps has increased. The public buildings in the refugee camps consist of education, health, communication and centralised food distribution buildings. The examples give an idea about the public buildings within the camps.

Health Centre for Sudanese Refugees

Courtyard

Courtyard

Courtyard

Waiting

Corridor
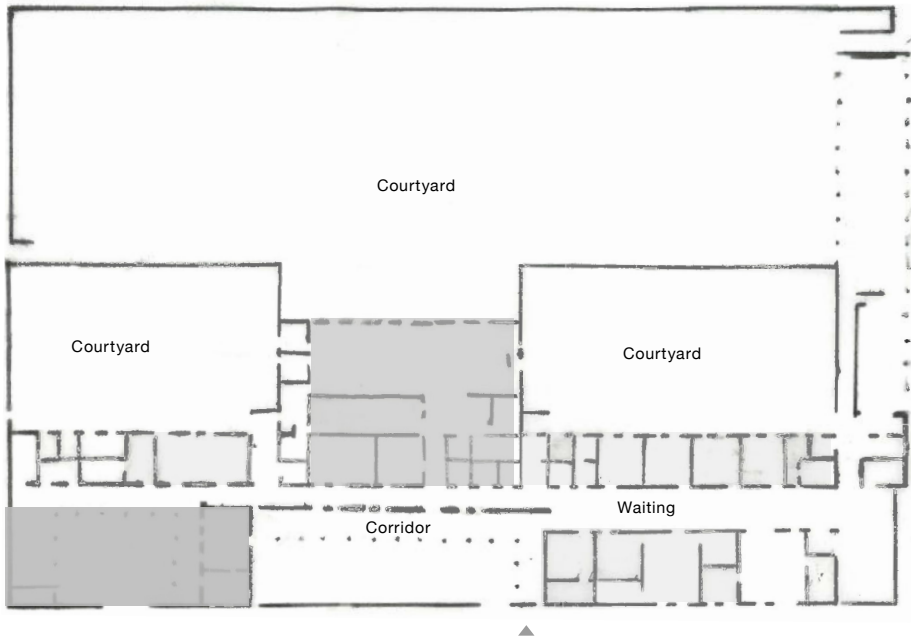
A2. Plan - Tamassociati.org (2012)

Outpatients clinic
Hospitalisation ward
Sub-intensive care

A3. Elevation - Tamassociati.org (2012)

A4. Cross section- Tamassociati.org (2012)

0   1m   5m

Health Centre for Sudanese Refugees

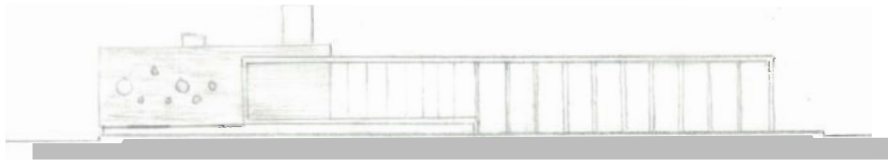The health centre is organised in a one-storey building. The program consists of a clinic and service area, arranged around a courtyard which is meant as a public space for social interaction. The design is based on sustainable principles such as natural ventilation in combination with mechanical cooling, and there is a natural wastewater treatment system in the garden.

The design principles of the health centre are based on the use of both new and traditional technologies, for example, recycling, use of local materials to create a more sustainable building, etc. [1]

[1] Anon (2016)

Location	**Port Sudan in Sudan, 2016**
Architect	**TAMassociati**
Program	**One-storey building, 3 outpatients clinics, 14 bed hospitalisation ward, 4 bed sub-intensive care, dispensary and service areas.**

A5. Impression - TAMassociati.org (2016)
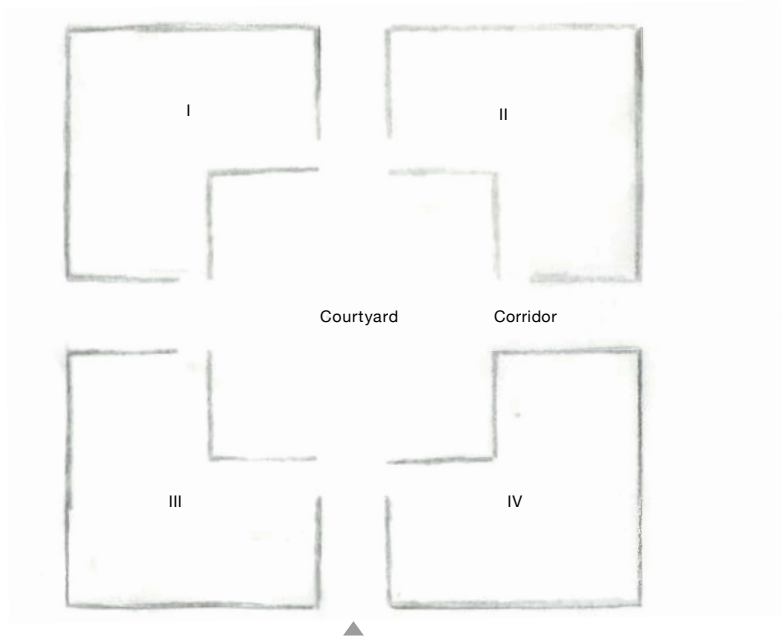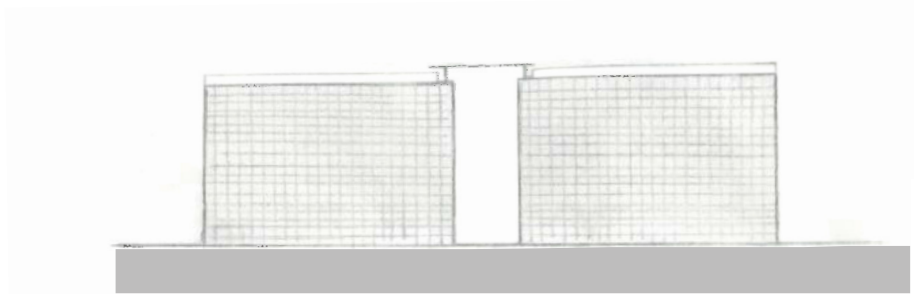
I

II

Courtyard   Corridor

III

IV

0   1m   5m

RE:BUILD School for Refugees in Jordan

The school is built up with scaffolding tubes and local materials. The temporary modular system can be used for housing, schools, clinics or any other function, due to the flexible plan.

[2] ArchDaily (2015)
Pilosioaward.com (2016)
Inhabitat.com (2016)
Publishers (2015)

The system is easy and fast to assemble. The idea is to use natural materials such as gravel, sand-earth for the thermal insulation which relates to the local climate. [2]

Locxation	**Za'atari in Jordan, 2015**
Architect	**Pouya Kazaeli**
Program	**One-storey building four classrooms, courtyard in the centre**

A9. Za'atari in Jordan - ArchDaily (2015)

Playground for Refugees in Lebanon

Playground

Courtyard

School Office

Classroom
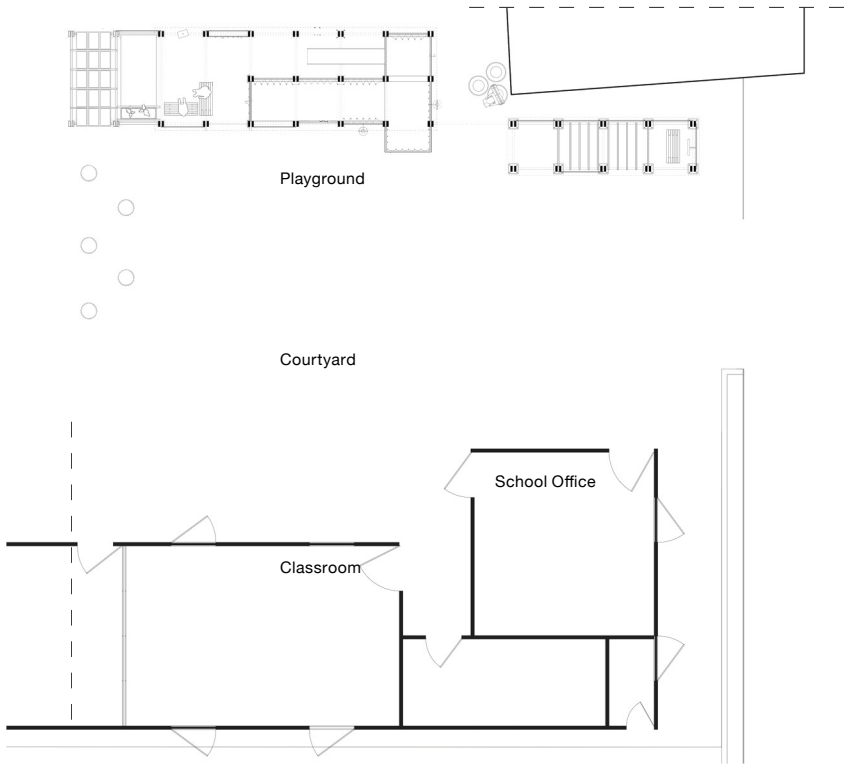
A10. Plan - Archdaily (2015)
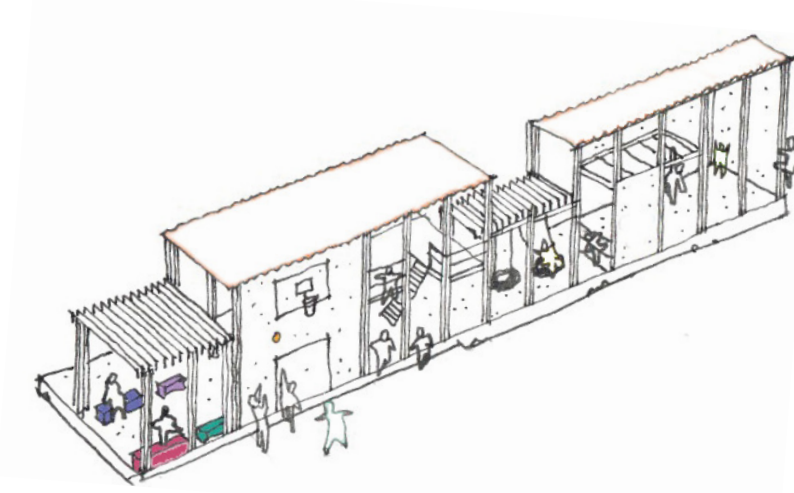
A11. Sketch- Archdaily (2015)

| 0 | 1m | | 5m |

Playground for Refugees in Lebanon

CatalyticAction involves refugee children exploring ideas for designing the playground, which results in places specific to their context, time, and users.

The playground is designed in such a way that is easy to assemble, disassemble, and move. Built-up with a wooden frame constructed on site, it is inspired by reusable materials such as vegetable crates, tyres, and ropes. The idea of the project is to trigger awareness of the public space for refugee children. [3]

[3] Archdaily.com (2016)

Location	Mar Elias in Lebanon, 2015
Architect	CatalyticAction Design, England
Program	2 storey building, basketball court, climbing wall, play house, monkey bars, steering wheel and seating area

A12. Impression - Archdaily (2015)

The Girl's School Shuafat Refugee Camp

Elements

Level 05

Level 04

Level 03

Axonometric

Level 02

Level 01
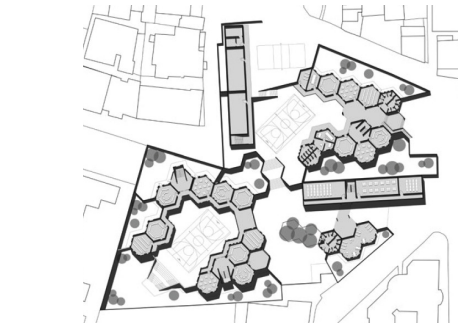
Situation

Greenery

	Courtyard
	School
	Green
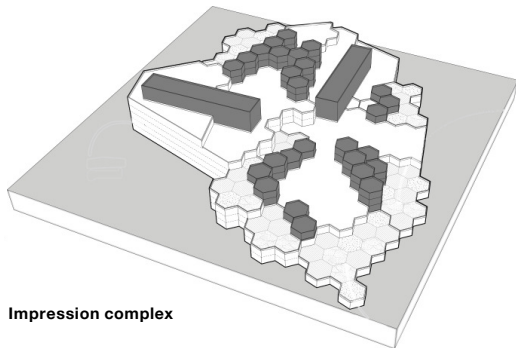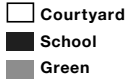
Impression complex

A13. School build up - Campus in Camps (2015)
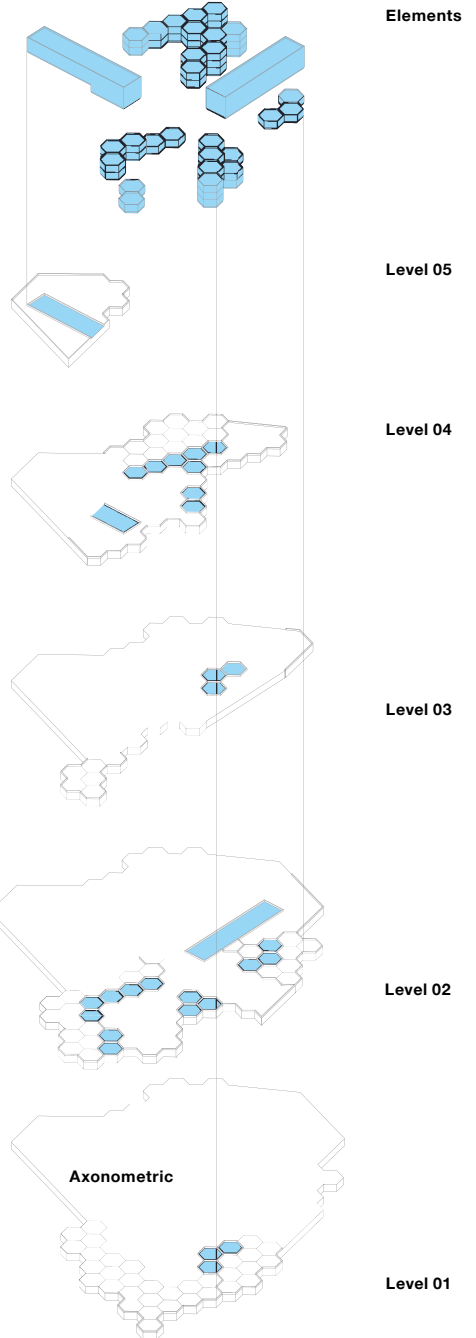
The Girl's School Shuafat Refugee Camp

In September 2014, the School for Girls in Shuafat Refugee Camp in Jerusalem, designed by Sandi Hilal, Alessandro Petti and Livia Minoja for the UNRWA Infrastructure and Camp Improvement Program, opened its doors to 1000 students.

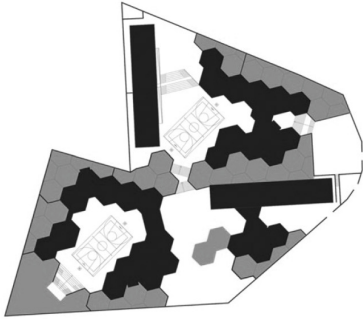The Idea of the design is to encourage students and teachers to engage in different interactions. The open spaces offer the possibility for people from the community to become teachers and activate discussions regarding topics that the participants choose according to their relative needs. [4]

[4] DAAR (2016)

Location	**Shuafat Jerusalem in Israel, 2015**
Architect	**DAAR Architects**
Program	**Five storey building, classrooms, farm, courtyard, beach, sports facilities and service areas**

A14. Girls School Shufat Refugee Camp - Campus in Camps (2015)

b

Building technology

Definition

Due to the temporary nature of the camps, for
a smart and sustainable approach is essential.
The following examples show the essence of
smart strategies used to increase durability.

Paper-Log House for Vietnamese Refugees

Plywood joints

Cardboard tubes
Diameter: 112mm
Weight: 1kg/ m²

Beer crates

0   1   2 M

B2. Exploded Axonometric - House (2016)
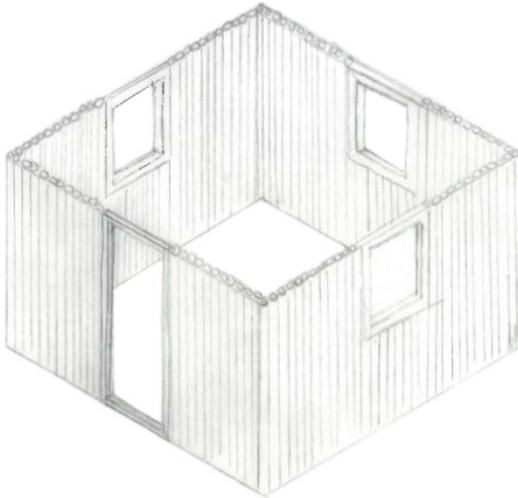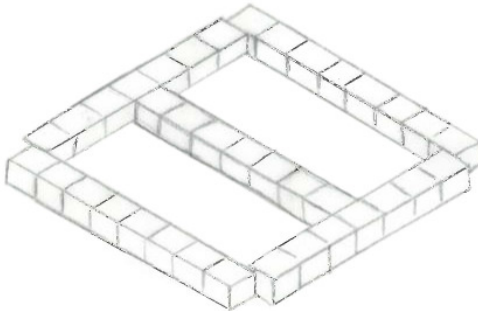
Paper-Log House for Vietnamese Refugees

The paper-log house is built up using paper tubes that function as structure, which then rests on beer crates. The tubes are filled with a waterproof sponge to make the walls watertight. A canvas roof both protects and provides maximum usage of daylight. The strategic use of recycled materials helps enforce the sustainable approach. [1]

[1] World-architects.com (2016)

Location	**Location: Kobe in Japan**
Architect	**Architect: Shigeru Ban**
Program	**Program: One-storey building, housing, shared space**

B3. Impression - Shigerubanarchitects.com (2016)

RE:BUILD School for Refugees in Jordan

3. Wooden pallets
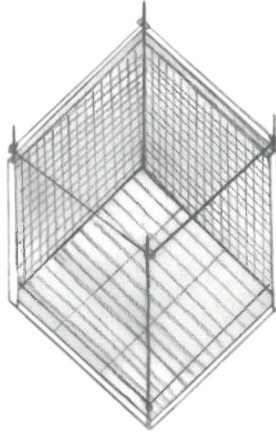
2. Steel rebar frames filled with gravel
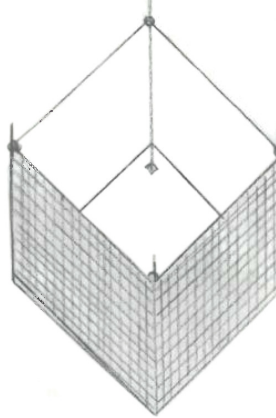
1. Scaffolding tubes

4m
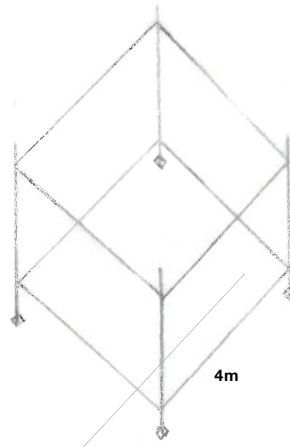
B4. Axonometric drawing - ArchDaily (2015)

0   1   2 M
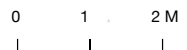
RE:BUILD School for Refugees in Jordan

The school is built up with scaffolding tubes and natural, local materials such as gravel and sand-earth, which ensure thermal insulation.

The axonometric drawings show the phases of development:
1. The scaffolding tubes are connected
2. The exterior is covered using: Steel re-bar frames filled with gravel and placing tie rods
3. The floor is made of wooden pallets
4. The roof is built up with plywood plates covered with thermic foil. In the centre, a drain tube collects water.

The system is, again, easy and fast to assemble. Thanks to the flexible plan the building can be used for a plethora of different functions. [2]

[2] Archdaily.com (2016)

Location	Za'atari in Jordan
Architect	Pouya Kazaeli
Program	One-storey building, four classrooms, courtyard in the centre

B5. Under construction - Archdaily (2016)

Emergency Sandbag Shelter

Bedroom

Living Space

Kitchen

Bathroom
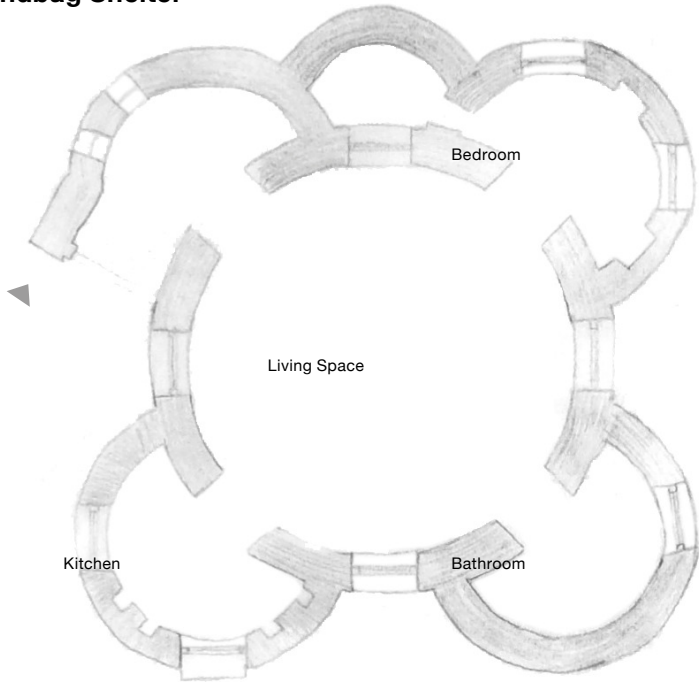
B6. Plan - Akdn.org (2016)
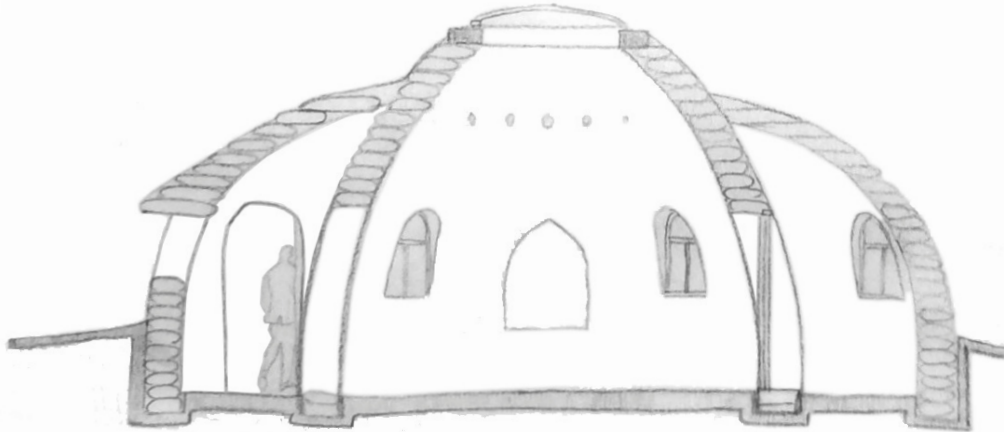
B7. Section - Akdn.org (2016)

0   1
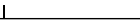
Emergency Sandbag Shelter

The concept allows people to build their shelter simply by packing whatever earth they find in their location into sandbags, which are then stacked into domes. Afterwards, the sandbags get plastered to finish the structure. The barbed wire holds the sandbags together.

The system is extremely quick, easy and cheap to assemble, and is structurally stable - able to resist a multitude of (natural) disasters. The shelter is also extremely adaptable because of the flexibility in proportion, spaces and materialisation. The system can also be used for different infrastructure purposes. [3]

[3] Akdn.org (2016)

Location Ahwaz in Iran
Architect Nader Khalili
Program One-storey building, living space, kitchen, bathroom, and bedroom

B8. Under construction - designboom | architecture & design magazine (2008)

EX- Container

2591mm
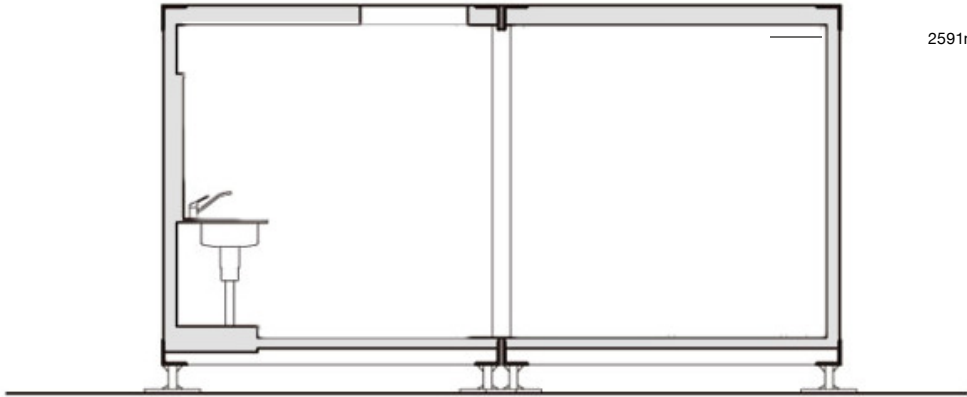
B9. Cross Section - designboom | architecture & design magazine (2013)

6058mm

Bathroom

Living Space

Kitchen

0   1   2 M
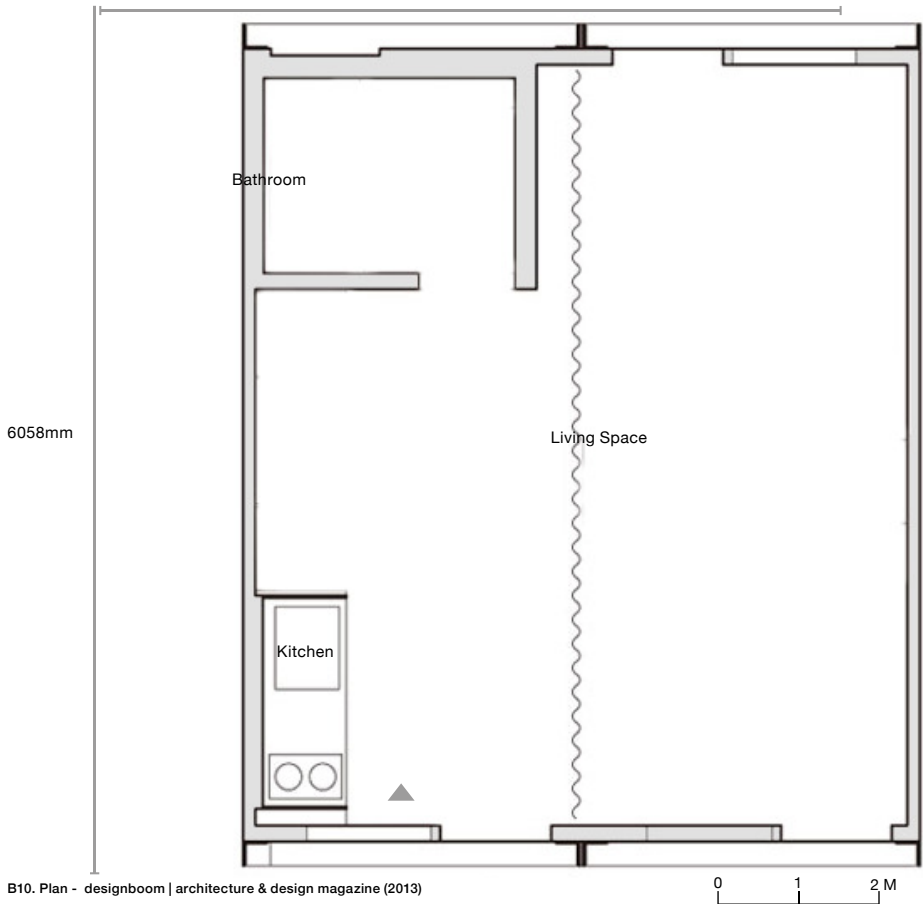
B10. Plan - designboom | architecture & design magazine (2013)

EX- Container

[4] designboom | architecture & design magazine (2013)

The shipment containers are stripped to retain the sustainable approach. The aim of the design is to use existing materials and to include several programs of basic needs. [4]

Location	Japan, 2011
Architect	Yasutaka Yoshimura
Program	Living space, kitchen, bathroom, and bedroom

B11. Impression - designboom | architecture & design magazine (2013)

C

Camps

Definition

A camp is a place offering temporary accommodation of residence for particular groups of people (or persons) with a specific aim. This residence can be for military personnel, refugees, prisoners, nomads, travellers, and other groups that demand it. [1]

[1] Oxforddictionaries. com, 2016

C2. Concentration Camp - Auschwitz II Birkenau - Polenreizen.nl, 2016

C3. Military Camp - Roman Legion Castra - Upload.wikimedia.org, 2016

C4. Refugee Camp - Darashakran Camp, Iraq - Media.msf.org, 2016

Camps in General

It is an unavoidable necessity to categorise camps due to their diversity. Overall there are three basic types of camp, characterised by their purpose (illustrated on the left). However, this chapter focuses only on camps that are in one way or another related to refugees.

With some exceptions, a prison naturally remains in use for a longer period. In stark contrast, military and refugee camps are, by definition, of a temporary nature. The latter today continue to exist however longer than is originally planned, mainly due to political reasons. In some extreme cases, this period of temporary permanence may extend to over 30 years.

Camps, in general, can be viewed as tent cities. A tent city is a temporary housing facility, which consists of tents or other ephemeral structures. Organisations such as the military or state governments set up tent cities like this to house refugees, soldiers evacuees, etc. [2]

Refugees often travel with their entire family in search of a better and safer harbourage. Some of them stay in camps to avoid danger and do not have any other place to go to; others are waiting to return to their homes. In most cases, however, the chance to return is almost non-existent. Thus, the useful range is anomalous. [3]

This chapter will give an overview, using maps and pictures, of a multitude of camps of different scales. A military encampment, for example, is almost never as large as a refugee camp. The images give clear insight into the organisation and infrastructure of camps - it consists mainly of a grid for the shelters, as well as some central areas, complete with management and accompanying facilities.

[2] Welcome Home - Hunter, J. (2014)
[3] Interview Charlie Hailey - Rorotoko. com (2016)
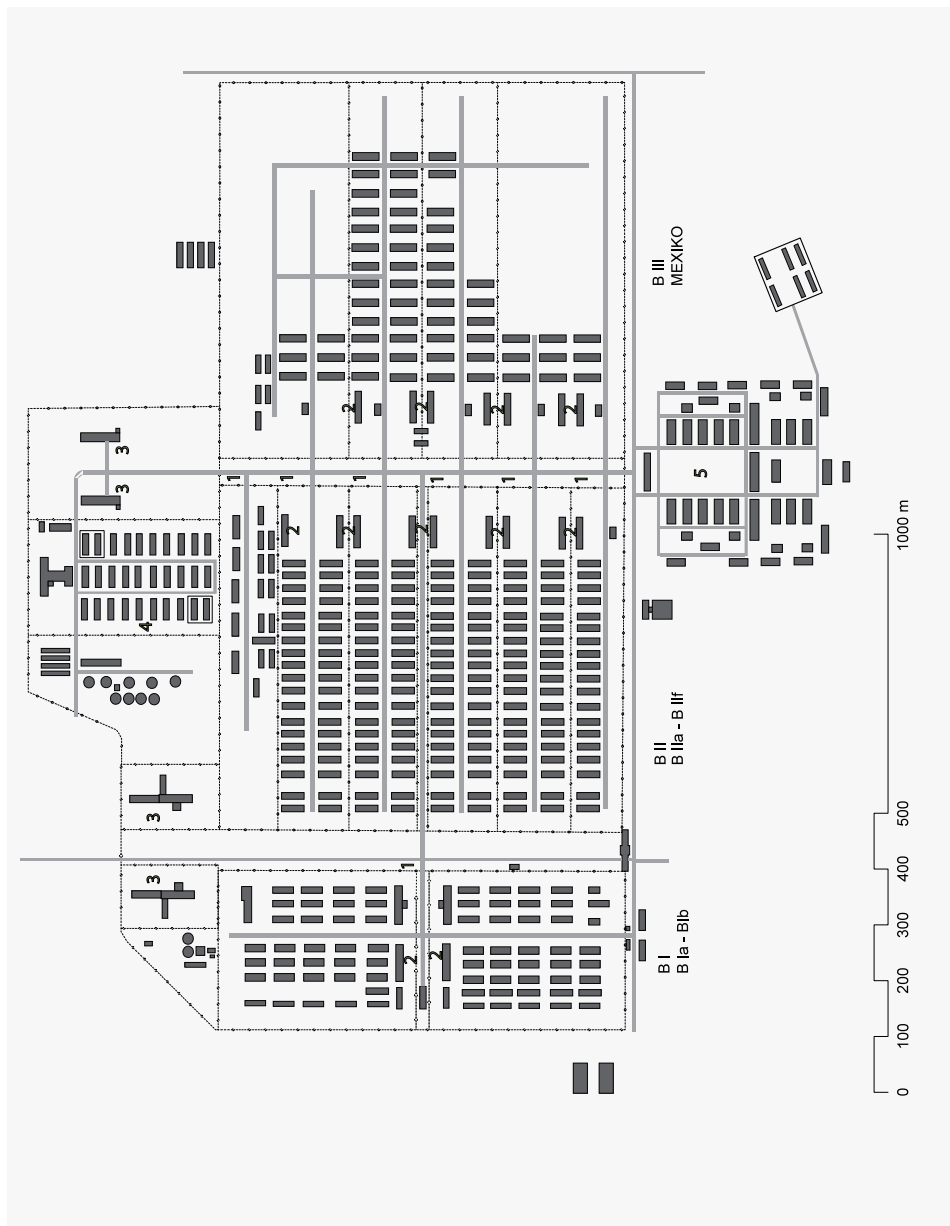
C5. Schematic plan of Auschwitz II Birkenau - Kaya, H., 2016

Auschwitz concentration camp (German: Konzentrationslager Auschwitz) was a network of German National-Socialist concentration and extermination camps built and operated by the Third Reich in occupied Poland during World War II. It consisted of Auschwitz I (the original camp) and Auschwitz II–Birkenau (a combined concentration/extermination camp), Auschwitz III–Monowitz (a labour camp to staff an IG Farben factory), and 45 satellite camps.

Construction on Auschwitz II-Birkenau began in October 1941 to ease congestion at the main camp. Plans called for the expansion of the camp first to house 150,000 and eventually as many as 200,000 inmates. [4]

[4] Steinbacher, 2005

Legend - C11

1:      Block guides offices
2:      Kitchen barracks
3:      Gas chambers/
         Crematoria
4:      Power station
5:      Camp commandant

Main roads/paths

Barracks

Fences

Mina - Tent City

A city of tents near Mecca, Saudi Arabia

C6. 100.000 airconditioned shelters - l.ytimg.com, 2016

C7. Whole city of tents inside a 20 square km valley - Unidentified, 2014

C8. Thousands of tents housing Muslim pilgrims fill the landscape in Mina once a year - Imgur, 2016

C9. Hybrid infrastructure for cars and pedestrians connecting the shelters and city to the Kaaba - Mintpressnews.
com, 2016

Refugee Camp

Dara Shakran Camp - Iraq

TOILET SHOWER AND KITCHEN
3 BLOCKS OF 1.5 X1.5 M²

RAISED
1.0 M

TENT SIZE
4.0 M X 6.5 M

SHELTER STAMP

1

1

2

4

3

C10. Situation plan of the Darashakran refugee camp in Iraq - Twana K. Gul, 2015
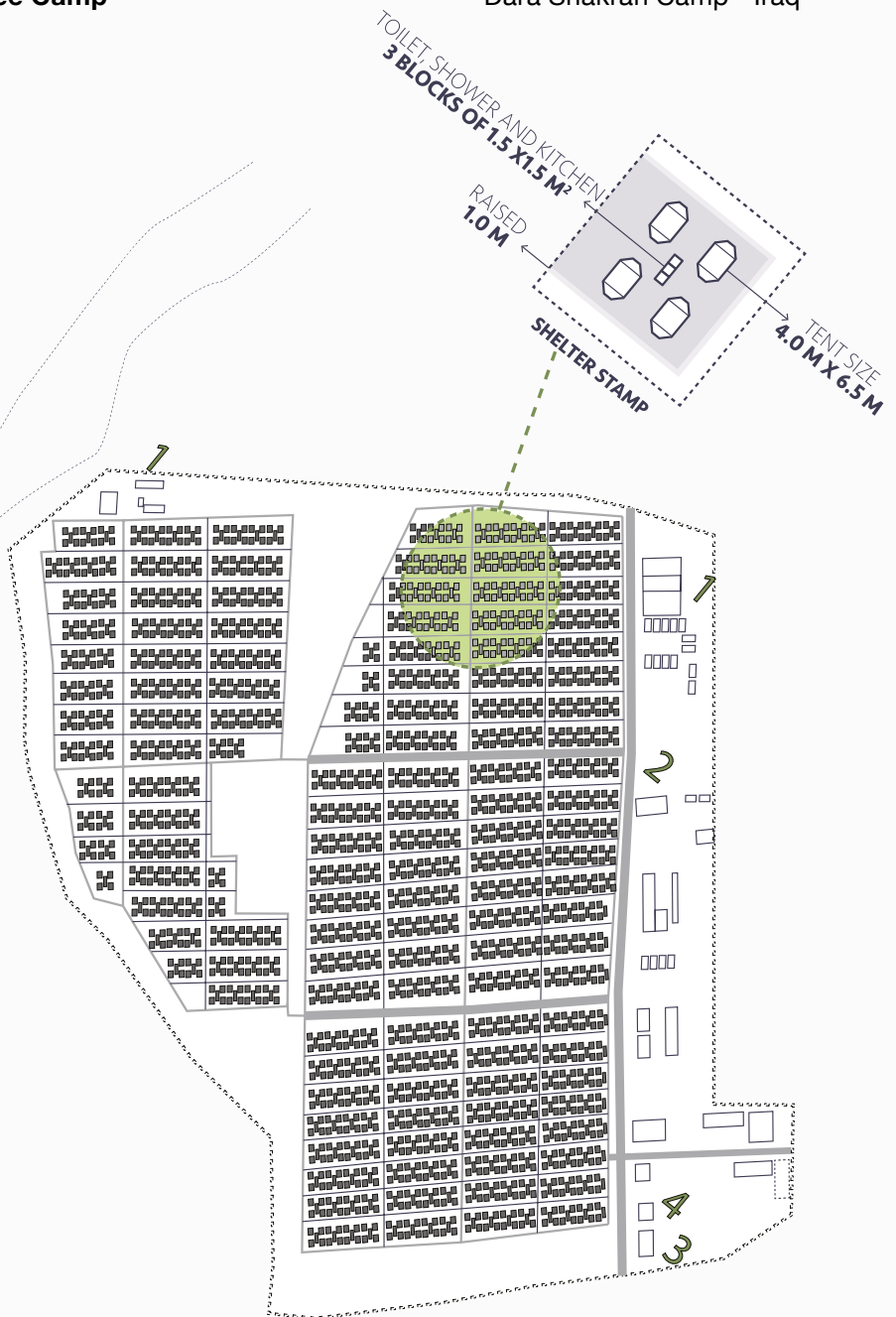
Legend - C11

1:          School
2:          Hospital
3:          Security check,
            Guardhouse
4:          Administration Office

▭   Facility Buildings

▭   Main roads

▬   Barracks

▭   Shelter Stamp (detail)

·········   Borders
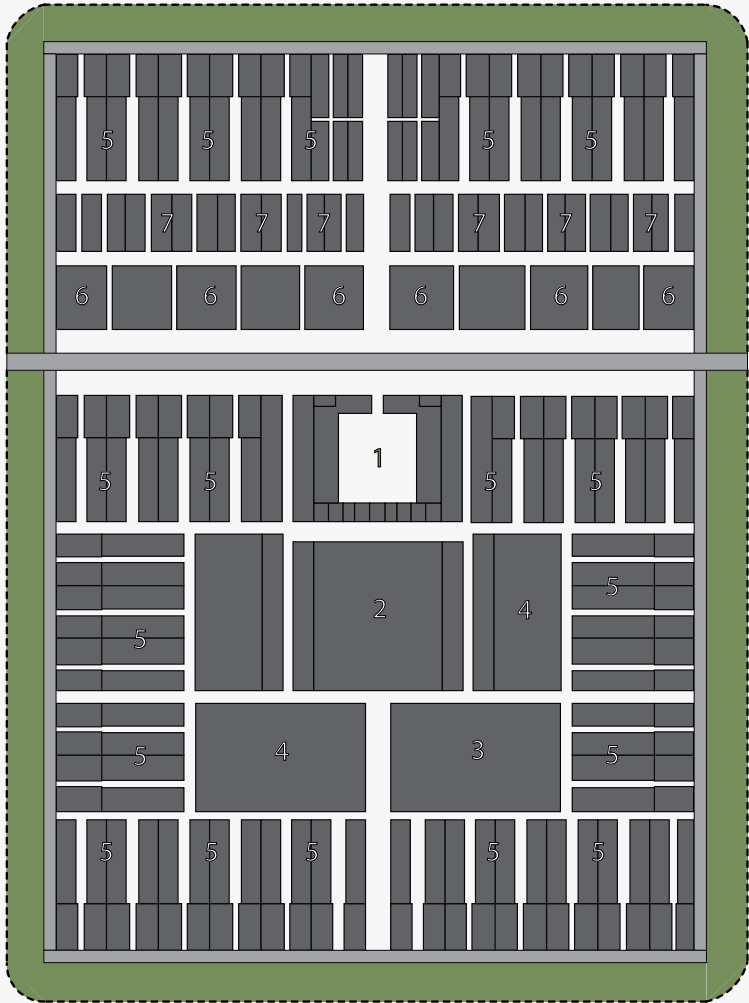
C11. Situation Plan of a typical (Roman) military base - Colorado.edu, 2016

Legend - C11

1:      Headquarters
2:      Supply Officer
3:      Market
4:      Fabric
5:      Shelters
6:      Commanders
7:      Associates

▭   Main roads

▭   Barracks

▭   Surroundings

Legend - C12

A: Headquarters
B: Main Road
C: Main Road
D: Gate
E: Gate
F: Gate
G: Gate

▭   Border

▭   Buildings
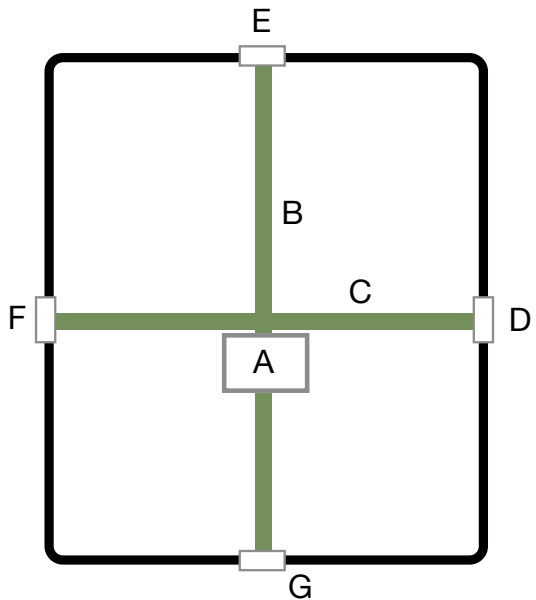
C12. Scheme of a typical Roman Legion encampment - Upload.wikimedia.org, 2016

Shuafat Refugee City

Former-refugee-camp-turned-city

C13. Situation Shuafat Palestina - H. Kaya (2016)

[5] UNRWA, 2016 The Shuafat refugee camp is adjacent to the Shu'fat neighbourhood, established by King Hussein of Jordan in 1965 to house Palestinian refugees from the Jerusalem, Lydda, Jaffa and Ramleh regions, after the Mascar camp in the Jewish quarter of the Old City had been closed. [5]

Legend

�	Shelters / Buildings
▮	Health
▮	Education
▮	Services
▬	Main Roads / Paths

Item	UNHCR Handbook for Emergencies	USAID Field Operations Guide
Minimum Living Space	Minimum of 3.5 square meters per person (4.16 square yards or 37 square feet).	Minimum living space of 3.5 square meters per person. A refugee camp should be organized into small communities of approximately 1,000 people.
Latrines	No less than one latrine for every 20 people. Latrines will be at least 6 meters from any living shelter. There must be a latrine within 50 meters of every shelter. The UNHCR Handbook provides several designs for latrines in Chapter 10. It then goes on to say that there are many potentially satisfactory types of latrines. Key factors of consideration in latrine selection are low cost, simplicity and ease of maintenance.	No less than one latrine for every 20 people. There must be a latrine within 100 meters of every shelter. There must be a latrine within 50 meters of every living shelter. Latrines must be at least 6 meters from any living shelter. The USAID Field Operating Guide discusses the importance of sanitation, but does not provide any actual designs.
Water	The maximum distance between any shelter and a water point must be no greater than 100 meters. Minimum individual water demands of 15-20 liters (4 – 5 gallons) per person per day. Minimum health centre water demands of 40-60 liters (10 – 16 gallons) per patient per day. Minimum food centre water demands of 20-30 liters (5 – 8 gallons) per person per day.	There must be at least one water tap for every 200-250 people. Minimum individual water demands of 15- 20 liters per person per day. Minimum health centre water demands of 20-30 liters per patient per day. Minimum food centre water demands of 40-60 liters per person per day.
Fire Breaks or Stops	A 50-meter fire break (area with no buildings) is recommended to placed every 300 meters.	A 50-meter fire break (area with no buildings) is recommended to be placed every 300 meters.
Shelter	A multi-family shelter with billet housing no more than 35 people. Recommends that shelters almost always be constructed by the refugees themselves.	Recommends the minimum technical specifications for the area's seasons.

C14. Comparison of UNHCR and USAID Standards - UNHCR, 2016

	Camp Cdr	CA	NGO	Security	Construc-tion Team	Fire Team
Camp Cdr	-	X	X	X	X	X
CA	X	-	X	X	X	
NGO	X	X	-			
Security	X	X		-	X	X
Con-struction Team	X	X		X	-	X
Fire Team	X			X	X	-

C15. Site Communications Connectivity Requirements - U.S. Air Force, Washington DC, 2000

C16. Building shelter - Images.adsttc.com, 2016

Basic Needs

- A telephone system for efficient incoming and outgoing communication
- Uninterrupted incoming and outgoing worldwide FAX.
- Reliable access to the Internet and e-mail.
- Sufficient laptop or personal computers for management and administration.
- Local area two-way radio network. Radios must be multi-channel. Ensure there is an adequate number of batteries.
- If there is to be more than one camp, each should have independent communications. [6]

Materials
Local materials used for shelters - usually wood, metal sheets, tree branches or plastic.

Space
The minimum shelter space is 3.5 sqm. The distance

Accommodation and Shelter

between two shelters should be no less than 2 meters

Tents
Only emergencies or if local materials are not available.

Organisation of Shelters
The camp should be organised into smaller units such that each one has its community facilities (toilets, water points and washing areas. [7]

d

Disasters

Definition

A disaster is an unexpected catastrophe causing significant damage or loss of human life.[1] Possible disasters are, for example, hurricanes, earthquakes, volcanic eruptions, pestilence, terrorism, economic crises, etc.

Disasters are often described as the result of the combination of exposure to a hazard, present conditions of vulnerability, and insufficient capacity or measures to reduce or cope with potentially negative consequences. Disaster impacts may include loss of life, injury, disease and other detrimental to human physical, mental and social well-being consequencves, together with damage to property, destruction of assets, loss of services, social and economic disruption and environmental degradation. [2]

[1] Oxforddictionaries.com, 2016
[2] Unisdr.org, 2016

D2. Chris Utzinger points to the earthquake-resistant piles - Forewarned.info, 2016

D3. Anticipatory Syrian Refugees on their way to Turkey - Static-secure.guim.co.uk, 2016

Expectations

More often than not, disasters can be reliably foretold. From the earthquakes in the vicinity of Japan or Haiti, for example, we can learn much of potential future target locations. An earthquake occurs more often where it has happened before. Terrorist attacks can be expected to take place in the Middle East. The same holds true for diseases, which are only ever spread by those already infected; they are also more likely to start in areas with low levels of hygiene, such as bustling, overcrowded cities or most tropical regions.

One prevention method employed in Japan, for example, is that the building technology has been developed in such a way that virtually every building can go through massive earthquakes without loss of structural integrity. As an extra precaution, residents are given go-bags, so as to be able to survive longer after losing their homes.[3]

In the context of terrorism, prevention is difficult to put into effect. Even though people are aware of the likelihood of such incidents in their vicinity, most are unmoved until it happens. Consequently, they are often unprepared, and leave their homes hastily, with whatever they could take on the way out.

According to Kunz, there are two types of refugee movements: one is the anticipatory refugee movement and the other - the acute refugee movement. Both act in the hopes of finding a safer and more pleasant life. The former the voluntary migrant - they start moving after having sensed danger, having packed with them all their belongings. The acute refugee, in stark contrast, has not the time or want to think about anything they have to leave behind, as the entire ordeal is an ad hoc event for him. There is, thus, a particular disparity between the criteria the two go by as regards their final destination. The migrant has a strong preference towards certain locations, while his counterpart does not. [4]

[3] Disaster Preparation - Nbcert.org, 2016
[4] The Refugee Experience - Msu.edu, 2016

Natural Disaster Risk

Map labels: Philippines, Myanmar, Indonesia, China, Bangladesh, India, Sri Lanka, Pakistan, Afghanistan, Iran, Mozambique, Ethiopia, Sudan, Haiti, Colombia

Legend:
- Extreme risk
- High risk
- Medium risk
- Low risk
- No Data

Rank	Country	Category
1	Bangladesh	extreme
2	Indonesia	extreme
3	Iran	extreme
4	Pakistan	extreme
5	Ethiopia	extreme
6	Sudan	extreme
7	Mozambique	extreme
8	Haiti	extreme
9	Philippines	extreme
10	Colombia	extreme
11	India	extreme
12	China	extreme
13	Sri Lanka	extreme
14	Myanmar	extreme
15	Afghanistan	extreme

D4. Index of Natural Disasters in 2010 (Earthquakes, Floods, Storms etc.) - Natural Disaster Risk Index, 2010

South Africa

South Africa is a multi-ethnic society encompassing a wide variety of cultures, languages, and religions. Its pluralistic makeup is reflected in the constitution's recognition of 11 official languages, which is among the highest number of any country in the world. Two of these languages are of European origin: Afrikaans developed from Dutch and served as the mother tongue of most white and coloured South Africans; English reflects the legacy of British colonialism and is commonly used in public and commercial life, though it is ranked fourth as a spoken first language.

The country is one of the few in Africa never to have had a coup d'état, and regular elections have been held for almost a century. However, the vast majority of black South Africans were not enfranchised until 1994. During the 20th century, the black majority sought to recover its rights from the dominant white minority, with this struggle playing a significant role in the country's recent history and politics. The National Party imposed apartheid in 1948, institutionalising previous racial segregation. After a long and sometimes violent struggle by the African National Congress and other anti-apartheid activists both inside and outside the country, discriminatory laws began to be repealed or abolished from 1990 onwards.

About 80 percent of South Africans are of Sub-Saharan African ancestry, divided among a variety of ethnic groups speaking different Bantu languages, nine of which have official status. The remaining population consists of Africa's largest communities of European (white), Asian (Indian), and multiracial (coloured) ancestry. Since 1994, all ethnic and linguistic groups have had political representation in the country's democracy, which comprises a parliamentary republic and nine provinces. South Africa is often referred to as the "Rainbow Nation" to describe the country's newly developing multicultural diversity in the wake of segregationist apartheid ideology.

Until late 2015, the World Bank classified South Africa as an upper-middle-income economy. South Africa today is a developed country and a newly industrialised country. Its economy is the second-largest in Africa, and the 34th-largest in the world. Regarding purchasing power parity, South Africa has the seventh-highest per capita income in Africa. However, poverty and inequality remain widespread, with about a quarter of the population unemployed and living on less than US$1.25 a day. Nevertheless, South Africa has been identified as a middle power in international affairs and maintains significant regional influence. [5]

[5] South Africa - Wikipedia

Disease Risk
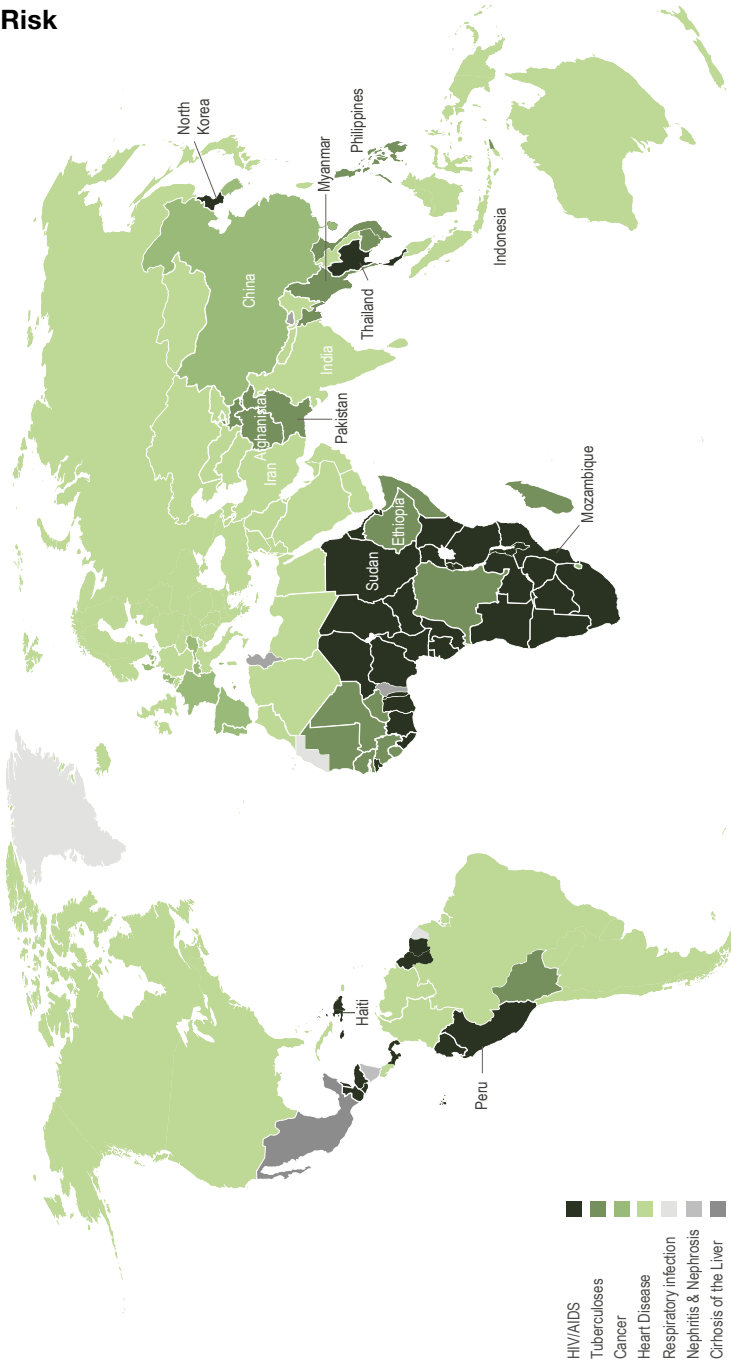
D5. Index of Diseases in 2016 Which Occur Broadly (HIV/AIDS, Cancer, Heart Disease etc.) - Simran Kosla, 2016

Terror Risk

Philippines

Indonesia

Russia

India

Afghanistan

Pakistan

Iran

Yemen

Somalia

Sudan-
South

Libya

South
Africa

Colombia

Extreme risk
High risk
Medium risk
Low risk
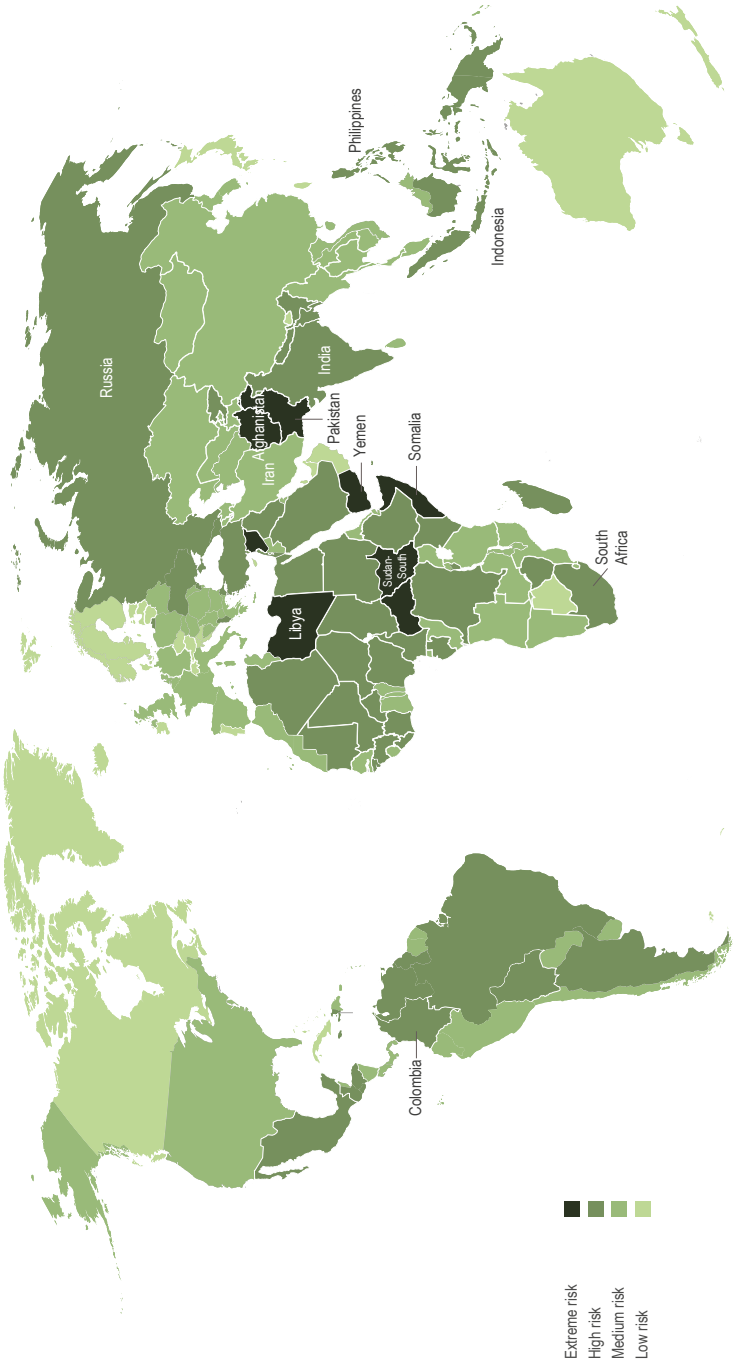
D6. Index of Terrorist Attacks and Other Detrimental Behaviour in 2015 (Terrorism, Vandalism etc.) - Red24, 2015

Rank	Country	Risk (%)
	WorldRiskIndex	
1.	Vanuatu	36.50
2.	Philippines	28.25
3.	Tonga	28.23
4.	Guatemala	20.68
5.	Bangladesh	19.37
6.	Solomon Islands	19.18
7.	Costa Rica	17.33
8.	El Salvador	17.12
9.	Cambodia	17.12
10.	Papua New Guinea	16.74
11.	Timor-Leste	16.41
12.	Brunei Darussalam	16.23
13.	Nicaragua	14.87
14.	Mauritius	14.78
15.	Guinea-Bissau	13.75

D7. United Nations University, 2015

Rank	Country	Risk (%)
147.	Germany	3.01
157.		2.38
158.	Norway	2.31
159.	Egypt	2.29
160.	Singapore	2.25
161.	Finland	2.24
162.	Sweden	2.19
163.	United Arab Emirates	1.91
164.	Bahrain	1.78
165.	Kiribati	1.72
166.	Iceland	1.56
167.	Grenada	1.44
168.	Barbados	1.21
169.	Saudi Arabia	1.17
170.	Malta	0.62
171.	Qatar	0.08

Conflict and violence-induced displacement

IDP and refugee numbers, 1989 to present
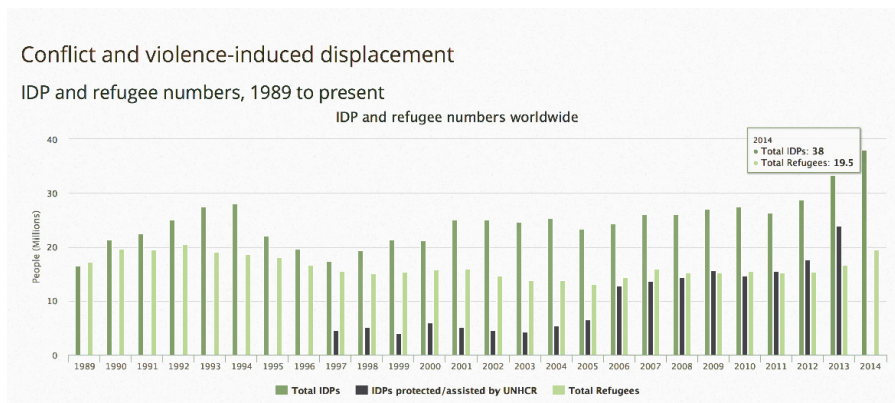
D8. IDP and Refugee Numbers Worldwide, 1989 to 2014 - Council, 2016

Expectations

The WorldRiskIndex investigates the risk of becoming the victim of a disaster resulting from an extreme natural event for every country worldwide. Risk contains exposure of the vulnerability of society to natural disasters. The focus is on risk in urban areas. Countries with a high or very high risk are often situated close to the equator. For example, the density of risk in Africa is very gradually divided. In general, the whole continent contains high and very high-risk rates. In contrast, when we focus exclusively on urban areas, this ratio changes in some countries, such as Ghana or Mali. They feature very low and little urban risk.

Japan belongs to the class with a very high disaster risk (ranking seventeenth worldwide), although, thanks to its exceptional level of development, the country shows a very low level of vulnerability (the fifteenth best value worldwide).

Also, the USA, for example, is classified as having high risk in urban areas, despite having a small national risk rate.

Table D7 shows the top 15 countries with the greatest risk of urban disasters, as well as those with the lowest one. [6]

The full ranking is available in the same document, which can be found in the bibliography, under section D-3.

In most cases, refugees have to stay for more than ten years at the same camp. They get used to the environment and to the idea that the place is starting to resemble their new home more and more. This is especially true for children. Despite the fact that their stay as refugees should be temporary, there is not much they can do to hasten the process; going back home is often impossible. The only thing they could try is looking for another camp or perhaps apply for permission for residence in the hosting country where they have received harbourage.

In 2014, 38 million people relocated, 19,5 million of which are refugees. This amount has been steadily increasing each year since 1995 and continued to do so to this day. Taking into account the recent slew of disasters in 2015, especially terrorist attacks, some refugees will likely escalate at an even faster pace in the years to come, as those who live in high-risk areas become increasingly willing to leave their homes indefinitely in the hopes of evading danger. [7]

[6] United Nations University, 2015

[7] IDMC » Global Figures - Council, 2016

f

Facility

This chapter aims to describe an exemplary camp along with its numerous facilities. Together with a comparison with other situations, this builds a foundation for further research and speculation on the creation of services accessible to refugees.

Container Camp Oncupinar, Turkey

F2. Part of Camp Oncupinar in Kilis, Turkey, Digital Globe, (2016)

F3. General view of Container City, Orsal, O., (2012)

Facilities in Turkey

Regarding necessities in camps, two examples
– a tent camp in Nizip and a container camp
in Oncupinar – show an excellent level of
facilities provided. On a community level:

Primary School
Secondary School
Health Clinic
Community Centre
Supermarket
Playground
Laundry Rooms

[1] Neushoorn.com
[2] Gras.nl
[3] Boom.be
[4] Zebra.de
[5] Berg.po
[6] Lucht.li
[7] Zeemeeuw.org

On a smaller scale/individual level:
Refrigerator
Stove
Hot Water
Cash Card with Monthly Allowance of 40-50 USD
(Television)
(Air Conditioning) [2]

Refugee Camps in Turkey

Province	Refugee Camps in Turkey	Opening Date	Tents/Containers	Camp Population
	Altınözü1 Tent City	09.06.2011	259	1,595
	Altınözü2 Tent City	10.06.2011	620	2,669
	Yayladağı1 Tent City	30.04.2011	563	3,217
	Yayladağı2 Tent City	12.07.2011	510	3,529
	Apaydın Tent City	09.10.2011	1,165	4,779
HATAY	**TOTAL**		**3,117**	**15,789**
	Oncupınar Container City	17.03.2012	2,053	13,570
	Elbeyli Container City	03.06.2013	3,592	17,210
KILIS	**TOTAL**		**5,645**	**30,780**
	Ceylanpınar Tent City	01.03.2012	4,771	27,229
	Akçakale Tent City	06.07.2012	5,046	26,364
	Harran Container City	13.01.2013	2,000	13,540
SANLIURFA	**TOTAL**		**9,817 tents + 2,000 containers**	**67,133**
	Islahiye Tent City	17.03.2012	1,754	9,392
	Karkamış Tent City	28.08.2012	1,636	7,366
	Nizip1 Tent City	03.10.2012	1,858	11,196
	Nizip2 Container City	11.02.2012	1,000	5,138
GAZIANTEP	**TOTAL**		**5,248 tents + 1,000 containers**	**33.070**
	Kahramanmaras Tent City	01.09.2012	2,737	14,986
KAHRAMANMARAS	**TOTAL**		**2,737**	**14,986**
	Cevdediye Tent City	09.09.2012	2,012	8,515
OSMANIYE	**TOTAL**		**2,012**	**8,515**
	Adıyaman Tent City	22.09.2012	2,292	9,998
ADIYAMAN	**TOTAL**		**2,292**	**9,998**
	Sancam Tent City	28.01.2013	2,142	10,189
ADANA	**TOTAL**		**2,142**	**10,189**
	Midyat Tent City	19.06.2013	1,300	2,366
	Nusaybin Tent City	Under construction		
MARDİN	**TOTAL**		**1,300**	**2,366**
	Beydagı Container City	12.06.2013	2,083	6,551
MALATYA	**TOTAL**		**2,083**	**6,551**

F4. Refugee Camps in Turkey, Prime Ministry (AFAD), (2013)

F5. Mahmoud and his family in their container, Bektas, U., (2012)
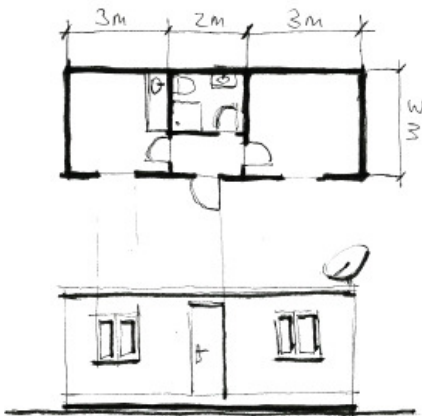
F6. Floor Plan/Elevation Container, Steenbergen, M. (2016)

Container life

The containers in Oncupinar city are fitted with a bathroom, small kitchen and bedroom. [3] There is only one of the latter, however, since each container is often occupied by approximately seven people, the kitchen can also function as a bedroom at night, when not in use. This means that every individual has 3,4 square meters of living space. Many containers go beyond the necessities and contain a television, complete with a satellite dish.

[1] Syrian Refugees and Turkey's Challenges, Kirişci, K., (2014)
[2] Turkey and Syrian Refugees, Federici, V. et al. (2013)
[3] How to build a perfect Refugee Camp, Mcclelland, M. (2014)

F7. Playground in Container City, Orsal, O., (2012)

F8. Refugee Family Watching Television in Their Container, Orsal, O., (2012)

F9. Grocery Store in Kilis Hutzler, T., (2014)

F10. Barber in the Space Between Containers, Bektas, U., (2012)

g
Geography

Definition

Geography is the science dealing with a real
differentiation in the earth's surface, as shown in the
character, arrangement, and interrelations over the
world of elements such as climate, elevation, soil,
vegetation, population, land use, industry, and states,
and of the unit areas formed by combining these
individual elements. [1] In our case, it is used to give
insight into the living conditions of numerous camps.

[1] Geography - Collins English
Dictionary - Complete & Unabridged
10th Edition (n.d.)

Location

G2. Fifty most-populated refugee camps - Heger, B. (2013)
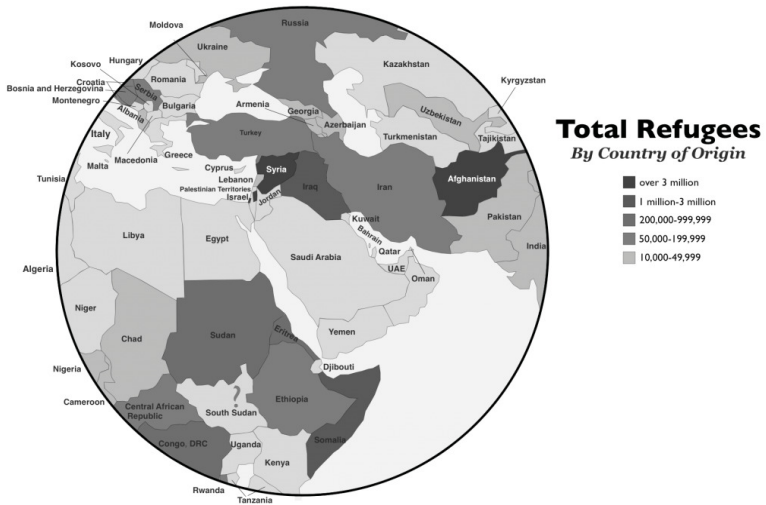
G3. Total refugees by country of origin - Lewis, M. (2014)

Location

By 2016, there are approximately 60 million refugees in the world, according to the United Nations High Commission for Refugees. This is an all-time high. 80 percent of these are women and children. The UNHCR offers protection and life-saving supplies in more than 125 countries and helps around 34 million of said refugees. The 50 largest camps can be found on the map to the left. These are predominantly in South Africa, the Middle East and Asia. Together make for more than 1.9 million refugees.

Even though millions of refugees are taken care of inside camps, most of them, around 85%, disappear into cities and other urban areas. Only around 15% of genuine refugees seek shelter in camps. Considering the latest numbers of refugees being roughly 60 million, the amount of those inside camps are still a meagre 9 million.

When looking at the most recent refugee crisis, there has been an influx of over 3 million people from Syria and neighbouring territories (figure G3). Most people fled to the more peaceful neighbouring countries, whereas others went deep into Europe. The majority of the more than 140.000 refugees residing in Urfa (7th most populous refugee camp) and Gaziantep (31st most populous refugee camp) in Turkey came from Syria. This holds true for the refugee camp Zaatari in Jordan as well (11th most populous refugee camp).

These millions are provided with clean drinking water, shelter, food and medical care by the UNHCR. This organisation also helps them seek asylum in other countries and tries to reunite the families that have been scattered due to the chaos war.

Even though the terms "camps" or "settlements" are used, many of these refugee camps are not temporary. Some of them have been there for years, and for a lot of younger people these camps are the only home they have ever known. An example is the Dadaab complex in Kenya. It includes the three biggest camps in the world and has been in use for the last 25 years. The largest of these three camps called Hagadera, houses 140.000 refugees alone, which is close to the population of a large city. [2]

[2] Fifty Most-Populated Refugee Camps - Heger, B. (2013)

Landscape

G4. Al Zaatari refugee camp, Jordan - McNeill, S. (2014)

G5. Azraq refugee camp, Jordan - Knell, Y. (2014)

Landscape

The word landscape refers to the visible features of an area of land; in this case, the landscape on which the refugee camps are set up. A closer look is taken at 4 different refugee camps in the middle-east regions, in the various countries. The exact numbers concerning temperature and rainfall can be found under the topic 'Climate'.

Al Zaatari Refugee Camp

The first refugee camp is one of the most famous refugee camps worldwide - Al Zaatari. It is located in the dry and desolate reaches of the Jordan desert. Most of the people here live in tents, while only a few fortunate ones live in trailers. With thousands of refugees fleeing to Al Zaatari each month, the security situation within the camp has been deteriorating over time. Due to the warm and dry location of the camp, water resources are very scarce. Many of the bathroom facilities do not work properly, and the shower areas of the camp are subject to high rates of vandalism. In Zaatari, they have had to adjust and make do with just 35 litres per person, per day. Back home, life was very different for these refugees. Most of them had substantial water reserves. In pre-conflict Syria, communities enjoyed around 70 to 145 litres per person per day. Next to water scarcity, the residents of Al Zaatari are exposed to dusty dry winds and frequent sandstorms that are common to the desert in which they are living. High temperatures can cause an unyielding storm that picks up grit and sand. This weather is locally known as "Al Tooz". The tents in which most of the refugees live are no shelter against such unfortunate weather conditions. [3][5]

Azraq Refugee Camp

The next camp is called the Azraq refugee camp. This camp is also located in the desert of Jordan, about 100 km away from the capital Amman. The camp in Azraq came into existence only a few years back, when the Syrian refugee crisis started. The camp has been built based on lessons learned from Zaatari and elsewhere, with decentralised facilities built around a village concept. With around 31.600 refugees, it is a lot smaller than the Al Zaatari camp, which has roughly 100.000. The camp was opened to relieve pressure on the Zaatari camp, some 80 kilometres to the north-west. It is comparable to the flat landscape of the Zaatari refugee camp. The severe lack of shelter fails to protect the refugees from the wind and frequent sandstorms that are part of daily life due to the desert climate. The minimum amount of water per person per day in the camp is the same as in Zaatari: 35 litres. The water is provided by a borehole 2,3 kilometres away from the camp. Former boreholes were at least 45 kilometres away from the camp. [4][5]

[3] Environmental Geospatial Statistics of Zaatari Refugee Camp - Pierson, L. (2013)
[4] Azraq: How a refugee camp is built from scratch - Knell, Y. (2014)
[5] Oxfam - Getting water to Zaatari during drought season (2014)

Landscape

G6. Jalozai refugee camp, Pakistan - Lee, J. (2013)

G7. El Sereif camp, Sudan - Davila, E. (2008)

Landscape

Jalozai Refugee Camp

The third refugee camp is the Jalozai refugee camp, which is the largest and one of the oldest refugee camps in the country of Pakistan. At its peak, it had around 80.000 refugees. It was located around 35km south-west of Peshawar. The camp was established in the 1980s after the 1979 Soviet invasion of Afghanistan. As for the landscape, it is found in the barren desert, comparable to the landscape of the refugee camps in Jordan. "The site itself was too small for that kind of population," said Mohammed Adar, a UNHCR senior emergency officer. "There was simply not enough space to dig the latrines that were required and to put in the shelters that were necessary."

Due to the hot and dry climate, water resources are, again, limited. Not only that, but the camp was also notorious for its miserable living conditions, open sewage and high disease prevalence. The tents in which they live provide little protection against the harsh weather conditions.

By early 2002, most of the refugees had been relocated from the Jalozai camp. Many of them returned home to Afghanistan following the removal of the Taliban from power in late 2001. In 2005 the area was hit by the catastrophic Kashmir earthquake, leaving behind significant devastation. [6]

El Sereif Refugee Camp

The El Sereif camp, near the South Darfur State capital Nyala, is also comparable to the other refugee camps when looking at the landscape. A hot and dry landscape climate are part of everyday life. It is located on a patch of desert with almost none of the basics essentials necessary to sustain life. Whereas the conditions in the Azraq camp in Jordan are quite feasible, the environment in this one is destitute. In 2014 it housed around 4.500 refugees. They are all badly protected against the harsh climate. There is scarcely enough drinking water to stay alive, and infectious diseases such as Hepatitis E is spreading. In 2014, camp residents were surviving on less than five litres of water per person per day, while the minimum amount of water for emergencies is 15 litres. [7]

[6] Jalozai refugee camp wins temporary reprieve - French, H. (2007)
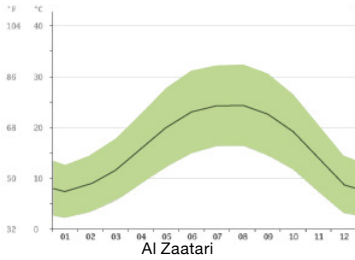[7] Sudan: Extremely poor living conditions in Darfur camp - MSF (2014)
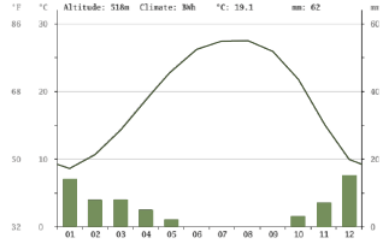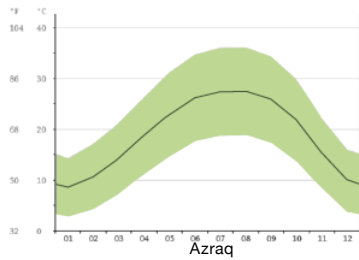[8] Jordan: http://www.unhcr.org/news/latest/2014/4/5360b21b6/jordan-opens-new-desert-camp-s (2014)

Climate

KLIMAAT-DIAGRAM
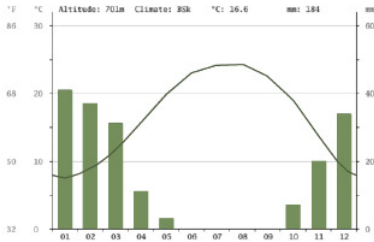
°F °C   Altitude: 701m Climate: BSk   °C: 16.6   mm: 184   mm

TEMPERATUUR GRAFIEK

TEMPERATUUR GRAFIEK

Al Zaatari

°F °C   Altitude: 518m Climate: BWh   °C: 19.1   mm: 62   mm

Azraq

KLIMAAT-DIAGRAM

°F °C   Altitude: 331m Climate: BSh   °C: 22.7   mm: 384   mm

TEMPERATUUR GRAFIEK

Jalozai

KLIMAAT-DIAGRAM

°F °C   Altitude: 523m Climate: BSh   °C: 26.4   mm: 687   mm

TEMPERATUUR GRAFIEK

El Sereif
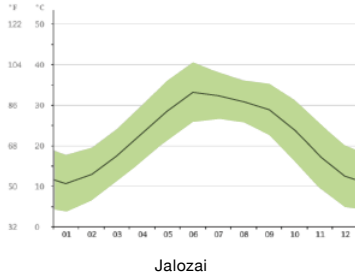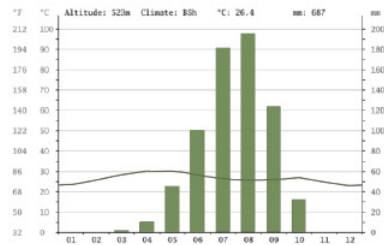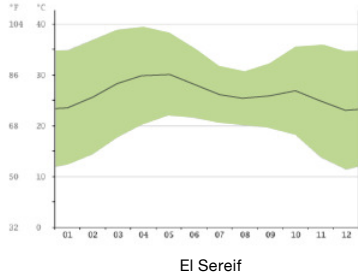
G8. Climate diagrams refugee camps - Climate-data.org (2012)

Climate

On the left-hand side, various diagrams show the climate of the four refugee camps discussed earlier. The data was collected over a period of 30 years, between 1982 and 2012. [9]

Al Zaatari
The Al Zaatari camp is based on a steppe climate: throughout the year there is a small sum of rain, while the average temperature is 16.6 ° C. The average amount of rainfall per year is 184 mm, with the driest month naturally being June: on average, the is no rainfall at all then. Most precipitation falls in January, with a monthly average of 41 mm. [3][10]

Azraq
The Azraq camp is locatedin an area that resembles closely a desert climate. There is virtually no rainfall in any month of the year. The average number of mm of rainfall per year is 62 mm, with, again, June and the months before and after experiencing none. With a mean of 15 mm, the most rain falls in December, while the average temperature is 19.1 ° C. [10]

Jalozai
In the Jalozai camp is again situated in a steppe climate. The average temperature in is around 22.7 ° C and the average amount of rainfall per year is 384 mm. June is still the driest month, although, unlike the previous two camps, it does rain even then, with an average amount of 8 mm per year. Most precipitation falls in March, with an average of 65 mm. [10]

El Sereif
The El Sereif camp, once more, is located in a steppe climate. Throughout the year there is little rain. The average temperature is 26.4 ° C. The average amount of rain per year is 687 mm. The driest month is January, with no rainfall at all. With a mean of 195 mm, the most rain falls in August. [10]

[9] Climate Refugees - Boudreau, A., McDaniel, M., Sprout, E., Turgeon, A., (n.d.)
[10] Climate Refugee Camps - Climate-data.org, (2012)

All camps are situated in an overall warm and dry climate. There are extremely dry months in all of them, with practically no rain. Together with the hot weather, sandstorms and small shelters, this leads to harsh living conditions. Snowstorms do not appear very often, but when they do, they bring utter devastation - tents are destroyed, and rain and snow push the temperature down; the streets turn into huge water puddles soon after that.

Geographical Displacement
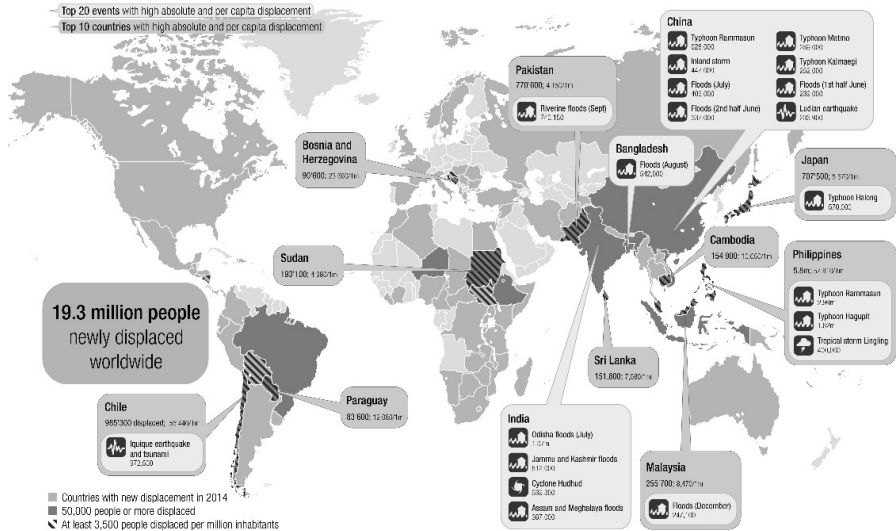
G9. Displacement related to disasters worldwide in 2014 - IDMC (2013)
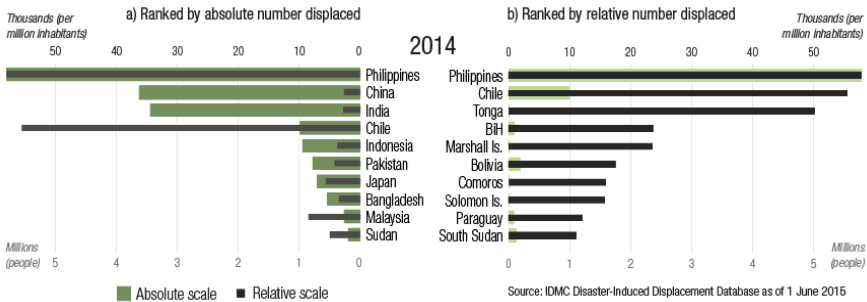
G10. Countries with the highest level of displacement - IDMC (2013)

Geographical Displacement

Displaced people who are forced out of their homes due to violence, environmental issues, disasters or political repression are one of the most disadvantaged groups in the world. Fulfilling needs such as clean drinking water becomes a constant struggle for most of these refugees. Nowadays, there are more than 45 million of them around the world, of which 27,5 million are Internationally Displaced Persons (shortened IDP's). Of these, 800.000 are asylum seekers who hope to achieve refugee status. Next to them there are around 12 million people worldwide who are stateless, i.e. they do not possess citizenship in any nation-state. Even though only a handful countries have reliable methods for documenting these stateless people, the awareness of them being present and of the difficulties that they face are both on the rise. Since 2010, 65 countries have reported statistics of stateless people, while there were only 30 in 2004.

[11] Mapping Displaced People Around the World - Schleeter, R., (n.d.)
[12] Global Estimates 2015: People displaced by disasters - IDMC (2013)

The majority of the refugees come from developing countries, as can be seen in the diagrams to the left, but are everywhere around the world. Most of the displaced persons reside in any neighbouring country that is willing to provide them with safety. Most often they flee to camps, hoping that they will go back once things have calmed down. Some wish to resettle permanently, however. For most, the waiting period can become extremely lengthened: from 2004 to 2010, only 444.000 refugees have been permanently resettled, less than 1 percent of the displaced population. Around 2.5 million have voluntarily returned home, around 6 percent of the total. The rest either continued living in refugee camps or are trying to integrate into local communities. The top most chosen destinations for permanent resettlement are Germany, the United Kingdom and the United States of America. [11][12]

h

Heritage

H1. The destruction of the historical heritage of Syria - Hurbila, M., (2014)

Definition

The term heritage is defined as something that comes or belongs to one because of birth [1]. This chapter provides some general information about heritage about refugees such as future endangerment, as well as the personal history of refugees and redevelopment of refugees and cultural heritage.
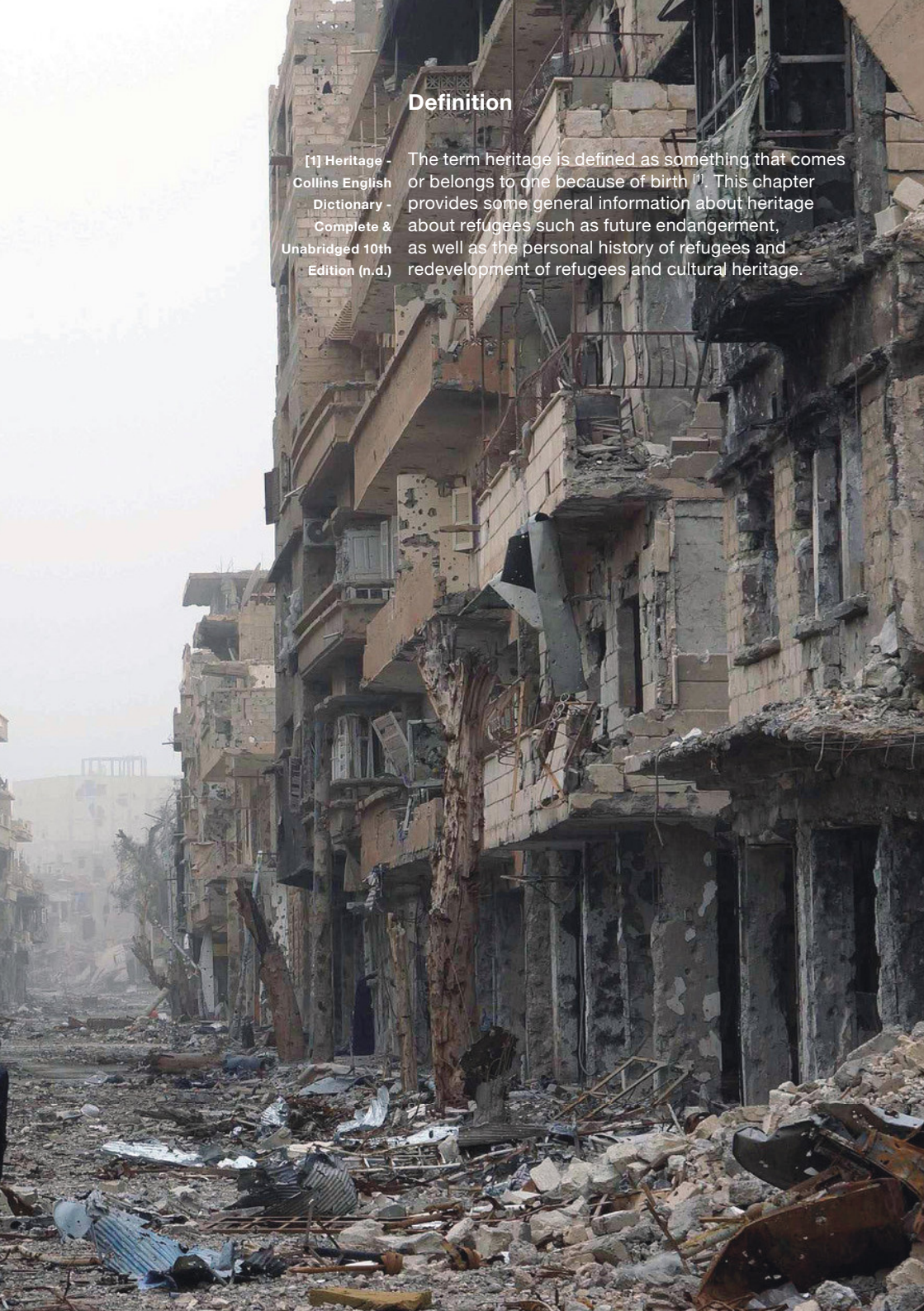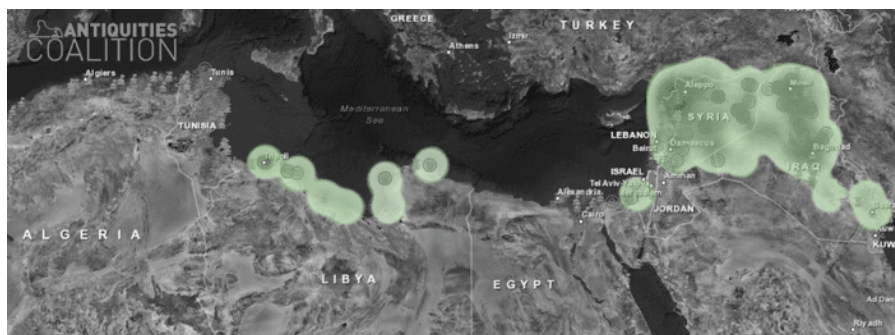
Endangerment
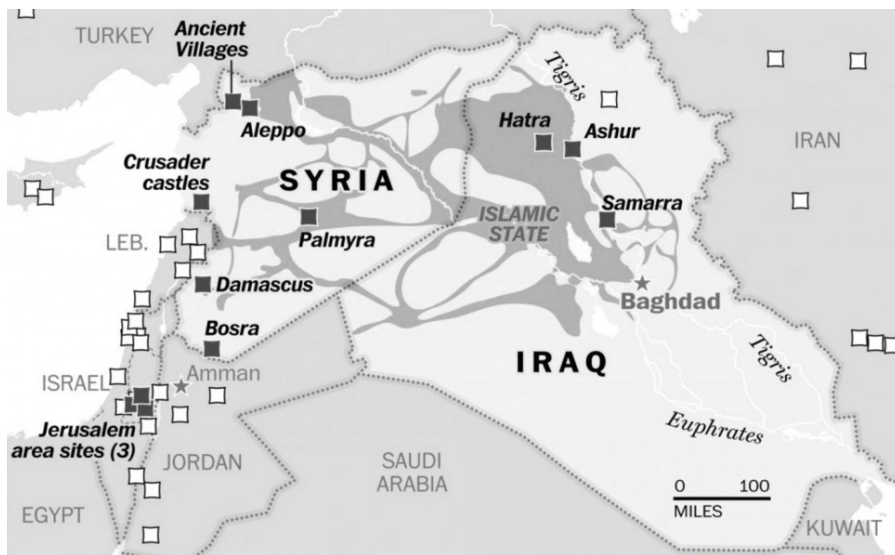
H2. Endangered heritage sites in Syria - Taylor, A., (2015)
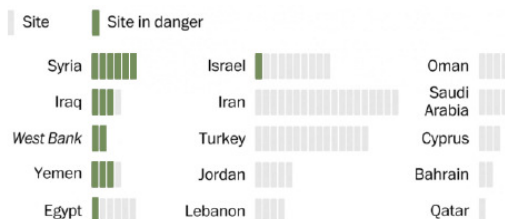
H3. World Heritage sites in danger in the Middle East - Taylor, A., (2015)

H4. UNESCO World Heritage Sites in danger - Dempsey, C. (2016)

World Heritage in Danger

War and armed conflicts, earthquakes and other natural disasters, pollution, uncontrolled urbanisation and unchecked tourism development are the most prominent factors causing problems to World Heritage sites around the world.

The destruction of heritage can cause significant loss of cultural wealth, a significant loss of historical authenticity and substantial deterioration of both architectural coherence and the natural environment.

Looking at the most recent refugee crisis in Syria, a country well-known for its rich historical sites and archaeological importance, we can see that nine out of ten protected World Heritage sites are in danger (see diagrams to the left). As war rages on, the threat of further loss of heritage being destroyed looms greater by the day.

In 2013, UNESCO attempted to expose the looting and destruction of Syrian heritage. UNESCO included six places on its list of World Heritage that had suffered considerable damage, in some cases it irreparable. These sites include old cities, districts and parks scattered around the towns.

The most dramatic losses are of course the people that were killed during the war, yet it is also necessary to pay attention to the losses that all are suffering when it comes to the degradation of their known cultural heritage and archaeological sites, not only in Syria but all around the globe. The destruction of history can rob us of the cultural wealth of the world. War not only causes the refugees' future to collapse, but also their past to be destroyed.

Heritage helps understand the history that people have gone through, both individual and collective. It serves as a reminder of how life was before the war broke out or a natural disaster struck. It creates a predisposition toward peace, as people long to enjoy the beauty they leave behind. It served as a link to history when times were better. [2][3][4]

Recently, for the first time in history, a man has been convicted for destroying nine tombs of saints/philosophers and a mosque in the historic city of Timbuktu in northern Mali. It was the first time that the International Criminal Court (ICC) accused an Islamic terrorist group of the destruction of historical and religious heritage under the term "War Crimes". It was the first time that the ICC has accused an Islamic terrorist group in their sights. And it is the first time that the prosecution managed to deem the destruction of historical and religious heritage to be under the term "War Crimes" so that the accused can stand trial. [5]

With the exponential growth of the rate at which intentional heritage sites in the Middle East are being destroyed, tracking and finding ways to protect these sites is a matter of vital importance. The map to the left shows how much of this heritage has already been destroyed. The plan includes public data showing museums and sites designated by the United Nations Educational, Scientific, and Cultural Organization (UNESCO) to protect some of the critical but less-known locations. It highlights roughly 700 heritage sites throughout the 22 states of the Arab League. 230 of these do not exist anymore [6].

[2] The destruction of the historical heritage of Syria - Hurbila, M., (2014)

[3] Map: There are 10 world heritage sites in Iraq and Syria. Nine are in danger. - Taylor, A., (2015)

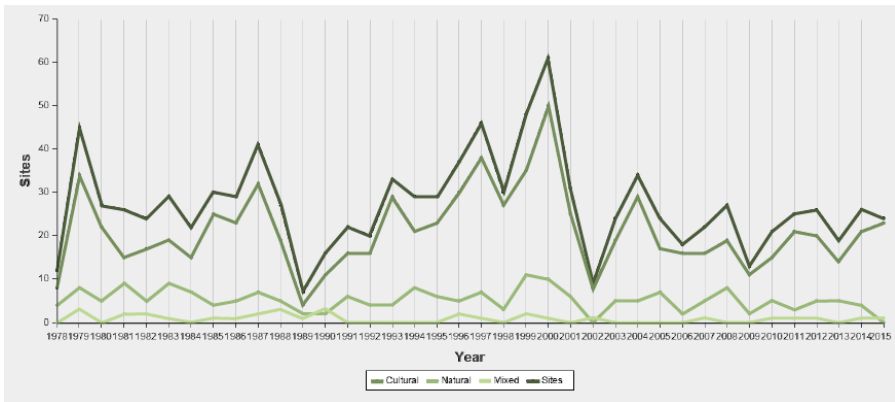[4] List of World Heritage in Danger - UNESCO, (2016)

[5] Primeur: aangeklaagd voor vernietigen werelderfgoed - Brummelman, W., (2015)

[6] Mapping the Destruction of UNESCO World Heritage Sites - Dempsey, C. (2016)

Heritage Conservation
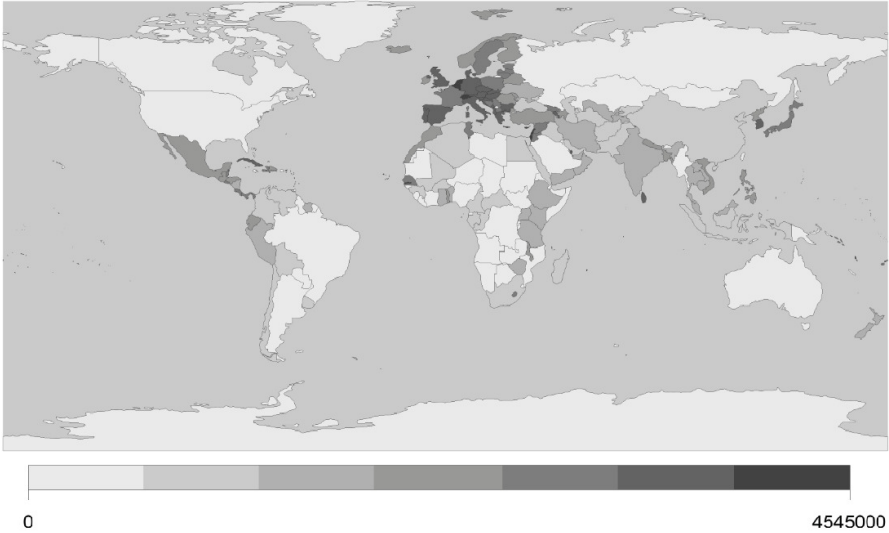
0   4545000

H5. Number of UNESCO World Heritage Sites per Million Square Km - UNESCO, (2014)

H6. Number of World Heritage properties inscribed each Year - UNESCO, (2015)

Heritage Conservation

As World Heritage sites are becoming more endangered by the day, we can ask ourselves what we can do about it. This also accounts for refugee camps, since some are almost 70 years old and carry a lot of history with them. Do these refugee camps also count as World Heritage? Must refugee camps be preserved as a part of cultural history?

Architectural conservation describes the process through which the material, historical, and design integrity of humanity's existing heritage is prolonged through carefully planned interventions. Refugee camps are seen as temporary spaces, which have to be quickly dismantled when the time comes. Some camps have been there for decades. The preservation of these camps might for some sound as a difficult proposition, due to the negative connotations that these refugee camps bear with them, yet it seems only logical when looking at them from a cultural point of view.

Statistics show that the number of World Heritage properties that are inscribed each year has been quite stable for the last couple of years. Even though some of them are endangered, new are being written in each year. Protection of heritage at all costs is not always an option. Most of the sites inscribed by UNESCO are not endangered, as the countries they are in are mostly safe and peaceful (see diagram H4). [7][8]

There are numerous reasons why cultural heritage should be preserved. On a small scale, the preservation of heritage benefits both the owner and the businesses involved. On a large scale, it can be seen as an investment in the community and leaves behind an invaluable resource for future generations. The image of a city is based on these elements. Without preservation, the historical integrity of a world heritage site would be lost.

[7] World Heritage List Statistics - UNESCO, (2015)
[8] The Architecture of Exile - Hilal, S., Petti, A., (2015)

Redevelopment

H7. AZC Breda - BredaVandaag (2015)

H8. AZC Apeldoorn - Omroep Gelderland (2015)

H9. AZC Neunen - Studio 40 (2015)

H10. GCA Gorinchem - Teegelaar, R., (2016)

H11. AZC Eindhoven - Hart van Nederland (2014)

H12. AZC Roermond - RTL Nieuws (2015)

Redevelopment

Almost all of the refugee camps around the world are set up as a temporary shelter, while a lot of them seem more permanent than they are temporary. This is also the case in the Netherlands. As there is a lack of space to take care of all the refugees that come from abroad, emergency shelters pop up everywhere to make sure all the people have a roof over their head. Listed below are six examples of emergency shelters set up in Holland for the latest flow of Syrian refugees. These emergency shelters are placed throughout the country, some of them being on the Dutch heritage list.

Emergency Shelters

As there is a lack of space for all the refugees, temporary shelters have been set up to provide them with food, drink, and a place to sleep. The first example of such an accommodation can be found at the Dr Batenburglaan in Breda. A former barrack now suffices as a shelter for refugees (see H7). This is also a building that is on the list of Dutch Heritage. The barracks are one of 55 abandoned buildings in the municipality. Not all can be used as a shelter for refugees, however, as it is simply not possible to repurpose them into housing facilities. [9]

As not all shelters are placed inside Heritage Sites, the next shelters are examples of different types of temporary buildings. For instance, the pavilion (depicted in figure H8) was set up at the skating ring next to the Americahal in Apeldoorn. It can house a maximum of 400 refugees, which can stay there for six months, after which they will have to move elsewhere. [10]

In Nuenen, a sports facility called de Hongerman had been transformed to serve as a temporary shelter for 200 refugees. Guards protect the facility 24 hours a day against unwanted trespassers.It provides the refugees with food, drink and a warm bed, as well as a translator. [11]

Another example is a former office building in Gorinchem (see H10). As this place was not used anymore, it was subsequently converted into a multi-dorm shelter providing the necessities that are required. [12]

In Eindhoven, the temporary housing unit "Orangerie " which was a former care home, has also been transformed into an AZC and can accommodate up to 700 asylum seekers. The location is expected to be used as such until 2018. Meanwhile, the COA is collaborating with the municipality to find a suitable replacement location.[13]

The last example is a church in Roermond. The diocese Roermond has set up ten churches as shelters, all of which are currently empty. [14]

[9] Marechausseekazerne aangeboden als onder-komen voor vluchtelingen - BredaVandaag (2015)
[10] TOpbouw tijdelijk onderkomen voor vluchtelingen in Apeldoorn in volle gang - Omroep Gelderland (2015)
[11] Vluchtelingen aangekomen bij tijdelijk onder-komen Nuenen - Studio 40 (2015)
[12] Kijkje in nieuw onderkomen vluchtelingen in Gorinchem - Teegelaar, R.(2016)
[13] AZC Eindhoven - VluchtelingenWerk Nederland (2015)
[14] Limburg gaat vluchtelingen opvangen in tien lege kerken - RTL Nieuws (2015)

Rebuild & Restore Heritage
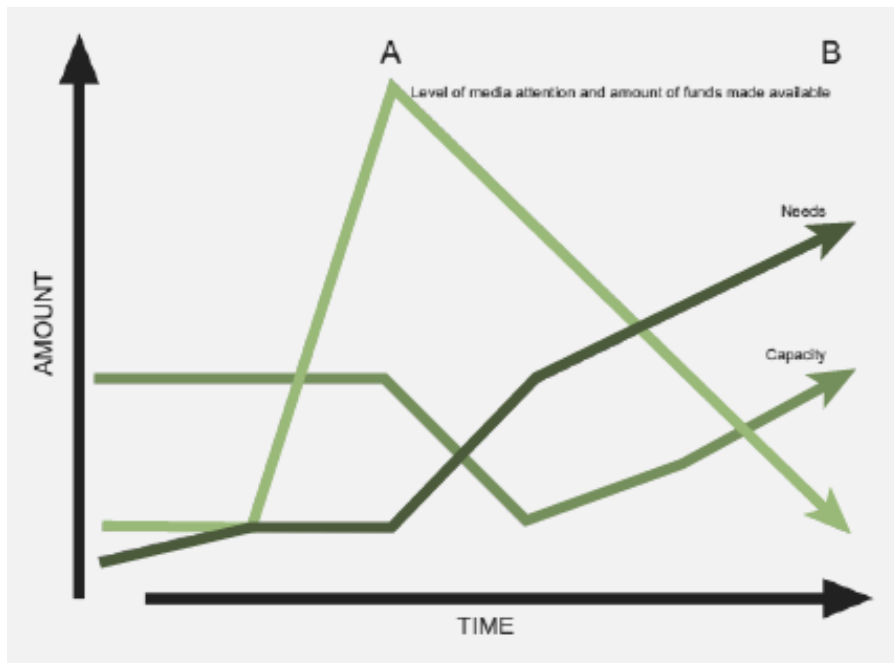
H13. Relationship between media attention and ability/need to respond - Stanley-price, N. (2005)

H14. Rebuilding lost heritage in Kasthmandu, Nepal after earthquake - Travel News Nepal (2015)

Rebuild & Restore Heritage

Refugees have made a massive cultural, social and economic contribution to life in Europe in the last 450 years, despite the, often negative, government and media responses. Many of them have the skills and experience to enrich both the European and Middle Eastern cultures.

Most are well-educated and highly-qualified, and almost all have at least some level of education. These skills can, for instance, be used to teach posterity about their home countries, as well as preserving the heritage that they leave behind.

Not only teaching and preserving but also rebuilding and restoring can be part of the skillset of the refugees. Placing the right tools in the right hands can help them rebuild and restore whatever has been destroyed in their hometown.

History tells us that immigrants and refugees can bring a multitude of benefits, both cultural and economic. Still the debate on this issue is dominated by overwhelming support for proposed legislation to impose even tighter restrictions. Focus should be shifted; being more open to the idea and turning a negative thong into a positive one.

To make this idea of teaching the refugees to rebuild and restore their lost heritage actually happen, financial support for the recovery of cultural heritage is needed. This support should be at its highest immediately after the war. The need to respond decreases over time, as seen in diagram H13. To make sure there are enough resources, even when needs are at their highest, clear day-to-day planning must be made in order to maximize the efficiency of usage of the given resources. Ways of maintaining media interest must be found as it plays a significant role in gathering these resources, by increasing public support for the cause.

[15] The Heritage and Contributions of Refugees to the UK – a Credit to the Nation - Refugee Week (2015)
[16] Cultural Heritage in Postwar Recovery - Stanley-Price, N. (2005)

Giving the refugees support and opportunities will enable them to enrich our society, like those before them have. [15][16]

Heritage Projects

H15. Refugee at Za'atari camp restores destroyed cultural heritage in miniature - Eve, L. (2016)

H16. What refugees bring on their journeys - Campbell-Dollaghan, K. (2015)

Heritage Projects

Those who fled from their hometown, having lost their homes, security and often their loved ones, have had a lot to endure. Refugees all over the world have seen their homes and heritage being destroyed. Memories are often the only thing that remains.

a project has been set up in the Zaatari refugee camp. A handful of artists is trying to preserve the historical landmarks by creating miniatures from recycled materials and stones from the vicinity of the camp. They only use some essential tools and materials that can be found there, choosing to recreate the heritage sites that are under severe threat or that have already been destroyed.

The idea behind the project is to educate the children that are in camps about their homeland. A lot of them have little or no memory of what they have left behind; they often know more about Jordan and the camp they live in than their own country. Once it is gone, it can never be rebuilt. The project not only helps the refugees make use of their time but also gives them a purpose to do so. [17]

Memorabilia
The photo on the left shows the inside of the bags of some refugees that fled their home country. To travel hundreds and sometimes even thousands of miles, people only take with them what they need.

The most common items that people take with them are a phone, a charger, a wallet, water, medicines and personal documents. Most carry something personal with them as well, something that reminds them of the things they left behind: of home, their friends and their family.

Almost all of the refugees are fleeing not because they are searching ravenously for new and better opportunities, rather because they are left with no other choice. Going to a refugee camp is often necessary if one is to survive. The preservation of this memorabilia is, therefore, a must for the refugees, to give them something representing a shining beacon of hope.

[17] Syrian refugees at Za'atari camp restore destroyed cultural heritage in miniature - Eve, L. (2016)

h
Historical
references

Definition

A Historical Reference is defined as a human-related investigative action or action(s) of, pertaining to, treating, or characteristic of searching for circumstances into the past or current data or knowledge of a subject. [1] This chapter sheds light on refugee camps throughout history, looking at refugee camps which came into existence after large groups of people were displaced from their homes, and comparing them with the refugee camps nowadays

[1] Historical Reference - Urban Dictionary LLC (2013)

Camps in History
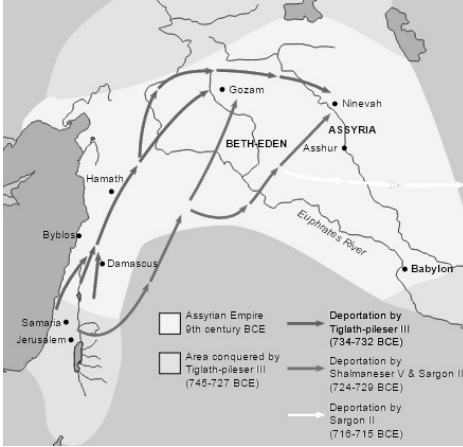
H2. Displacement - Israelites (715-745 BCE) - Wikipedia (2016)
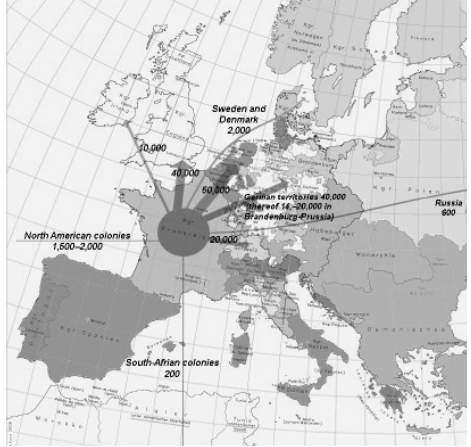
H3. Displacement - Huguenots (1699) - Labin, L. (2015)
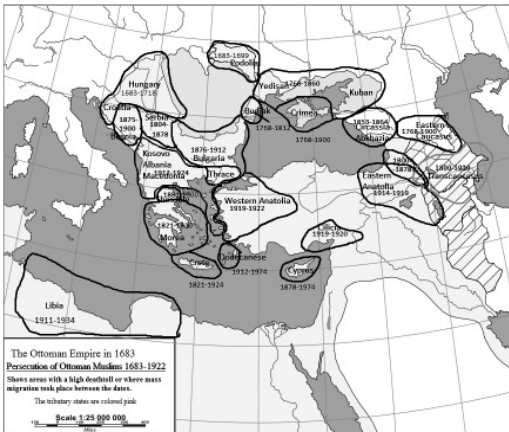
H4. Displacement - Muslims (1683-1922) - Wikipedia (2016)

H5. Displacement (Pogroms) (1871-1906) - Grossman, M. (n.d.)

Camps in History

For thousands of years people have been forced out of their homes, whether due to violence on the part of others, or environmental reasons. The following pages will give some insight into a few of the largest displacements in history and some of the camps created following the events. [2] Examples of camps are produced here, ranging from those built during World War I to the largest and most recent displacement due to the ongoing war in Syria.

Israelites – Canaan – 740 BC
The Assyrian captivity was a period in which several thousand Israelites were resettled as captives by Assyria. Assyrian cuneiform stated that 27290 people were exiled from their homes, deported northward. It is claimed that none of them ever returned to their home. [3]

Edict of Fontainebleau – France – 1685
The Edict of Fontainebleau was set up by Louis XIV. It meant that the Huguenots could not practice their Protestant faith freely. Between 210 000 and 900 000 people were exiled from their homes over a period of 20 years. A quarter of citizens went to England, and the rest settled in other nearby countries such as the Netherlands, Germany and Switzerland. Those that left the country started new lives there, never returning to France. [4][5]

[2] What happened to history's refugees? - Chalabi, M. (2013)
[3] Deportation of the Northern Kingdom of Israel by the Assyrian Empire - Wikipedia (2016)
[4] The Emigration of the Huguanots after the Edict of Fontainebleau - Labin, L. (2015)
[5] Refugee Week: The Huguenots count among the most successful of Britain's immigrants - Tonkin, B. (2015)
[6] Persecution of Ottoman Muslims - Wikipedia (2016)
[7] The Pogroms - Grossman, M. (2015)
[8] Anti-Jewish Pogroms in the Russian Empire - Wikipedia (2016)

Muhacirs – Ottoman Empire – 1783
In a timespan of 150 years, 5 to 7 million Muslims left their homes to resettle in what is now modern-day Turkey. This period refers to the persecution, massacre and 'ethnic cleansing' of Muslims by non-Muslim ethnic groups. Some of them were Yörüks, nomads who quickly became sedentary. Others settled in almost all of the towns, but the majority of them settled in the Eastern Balkans. [6]

Pogroms – Russia – 1881
After Tsar Alexander II had been killed, a wave of anti-Jewish sentiment was unleashed. In a period of 3 years, widespread reprisals against Jewish homes took place. Around 2 million Jews were exiled towards the UK, the US and elsewhere in Europe. [7][8]

Camps in History

H6. Map World War I 1914 - The National Archives (2009)

World War I – Europe – 1914
During the German invasion of Belgium, more than a million people were exiled from their homes due to the threat of warfare and the ensuing destruction. The Dutch government decided to house refugees in camps on the outskirts of the country, in towns as Gouda and Bergen op Zoom. The emphasis in these camps was on health and hygiene. They expected the refugees to work hard and make toys and household goods. Most refugees returned to their homes at the end of the war. [9]

H7. Interneeringsdepot Harderwijk - Legerplaats.nl (2013)

Interneringskamp Harderwijk & Zeist
Examples of camps during and right after World War I are the Interneringskamp Harderwijk and the Interneringskamp Ziest. After the fall of Antwerp, around 13.000 Belgian soldiers went to the camp in Hardwijk. Stories from that time tell how the camp grew into a large village, with facilities such as a library, a theatre, schools, sports facilities and even a printing office. [10][11]

H8. Interneeringskamp Zeist - Raven, G (2012)

Camps in History

H9. World War II in Europe (1939-1941) - Wikimedia (2016)

The map legend contains:

- Allemagne Nazie (août 1939)
- Régions occupées (septembre 1939-mai 1941)
- Alliés de l'Allemagne (en 1940)
- Annexions soviétiques
- Pays non vaincu par l'Allemagne
- Pays neutres
- Offensives allemandes
- Offensives aériennes allemandes
- Offensives italiennes
- Offensives soviétiques

Map labels: Narvik, NORVÈGE, FINLANDE, Nov. 1939, SUÈDE, Mer Baltique, PAYS BALTES, Juin 1940, URSS, Mer du Nord, IRLANDE, ROYAUME UNI, D, Bataille d'Angleterre Août 1940, Avril 1940, POLOGNE, Sept. 1939, PB, B, Mai 1940, Sept. 1939, ALLEMAGNE, OCÉAN ATLANTIQUE, Déc. 1940, Avril 1941, SLO., HONGRIE, Juin 1940, FRANCE, ROUMANIE, Mer Noire, YOUGOS., BULGARIE, ITALIE, ALB., Mer Méditerranée, Afrika Korps, GRÈCE, 0 500 Km

H10. Post-war refugee camp West-Germany - Spröer, S. (2015)

World War II – Europe – 1945

By the time WWII ended, there were more than 40 million refugees in Europe alone. To deal with this vast influx international laws and organisations were urgently created to become the foundation that is still relied upon today. Even before the war had ended, thousands of Germans started fleeing into Western Europe, away from Soviet forces. The term 'Displaced Person' was coined. It applied to the millions of refugees who were exiled from their homes into neighbouring countries as a result of the war, some of which were former slaves who had been imprisoned in concentration camps. [12][15]
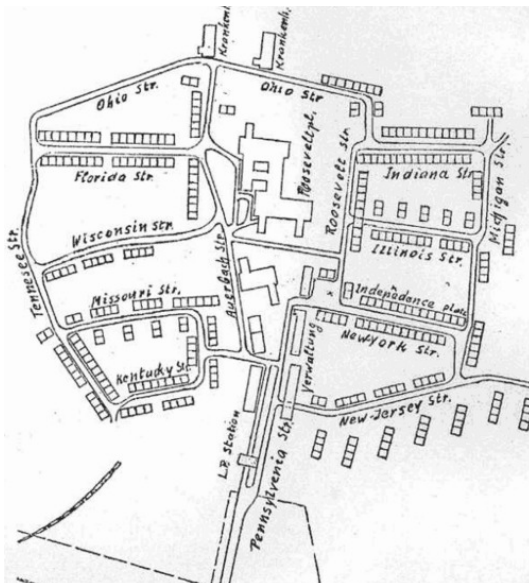
H11. Map of Föhrenwald DP camp in Bavaria - Wikipedia (2016)

Föhrenwald DP camp

For years, the displaced were housed in refugee camps in West Germany. An example of a post-war Displaced Person camp was the Föhrenwald camp in Bavaria, Germany. It was one of the largest DP camps in post-World War II Europe, and it was the last to close, in the year 1957. The facilities in the camp were dated from 1939. The living conditions were harsh - in the first few years there was a high risk of catching diseases such as tuberculosis in the camps. [13][14]

[12] Postwar refugee crisis and the establishment of the state of Israel - USHMM (2016)
[13] 50 years on in Germany, Eastern Europe's displaced still remember UNHCR - Kirchhof, A. (2006)
[14] Föhrenwald DP camp in Bavaria - Wikipedia (2016)
[15] What happened to history - the guardian (2016)

Camps in History

H12. Palestinian refugee camp - Aljazeera America (2013)

H13. Ugandan Refugees emigrating - Gavaghan, J. (2013)

H14. Jalozai Refugee Camp - Yousafzai, Z. (2013)

H15. Refugee camp in Croatia - Landwehr, D. (2011)

Camps in History

Nakba – Palestine – 1948
In 1948 the Palestinian exodus took place - more than 700 000 Palestinian Arabs were exiled from their homes during the war, about 80 percent of the Arab community. The UNRWA (United Nations Relief and Works Agency) was created to deal with all the refugees. Palestinian refugee camps were set up to accommodate those who fled or were exiled. [16]

Idi Amin's Order – Uganda – 1972
In 1972, General Idi Amin accused Asian residents of being "bloodsuckers", giving them 90 days to leave the country. Around 90 000 Asians got expelled, of which 50 000 went to the UK. An example of a camp was the Royal Air Force one at Stradishall in Suffolk, a former RAF station. It was a transit station in which they were provided with food, water and shelter before they moved on to their new homes. [17]

Puppet Governments – Afghanistan – 1979
In the year 1979, the Soviet Union occupied the country and exiled 5 million people. The largest group went to Pakistan, with a total of more than 1.5 million inhabitants. The most well-known camp which was set up during this war was the Jalozai refugee camp in Pakistan. It had around 70 000 refugees at its peak. After the Taliban had fallen, most of the people in the camp went home or regarding somewhere else. [18]

Balkans Conflicts – Balkans – 1992
The Bosnian war forced 2.7 million people to flee their homes, making it the largest person displacement in Europe after World War 2- half of the population was displaced. Neighbouring countries, one of which is Croatia, have taken most of the refugees. Most of the people that were exiled have returned home, around 2.5 million people. Nevertheless, the UN is still trying to provide the remaining 620.000 refugees and internally displaced people with the help they need. [19]

[16] 1948 Palestinian exodus - Wikipedia (2016)
[17] Expulsion of Asians from Uganda - Wikipedia (2016)
[18] Afghaanse Oorlog (1979-1989) - Wikipedia (2016)
[19] War in the Balkans - Ramet, S. (n.d.)

Camps in History
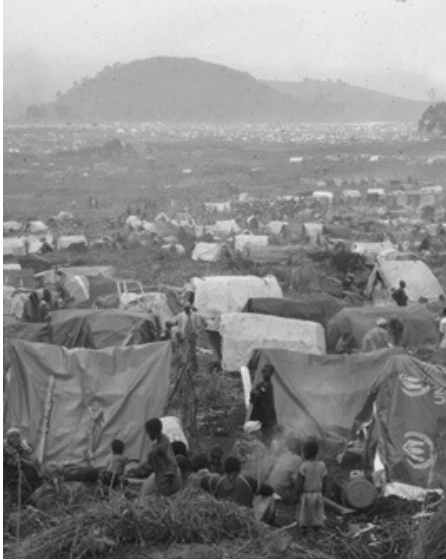
H16. Refugee camp in Zaire 1994 - Wikipedia (2016)
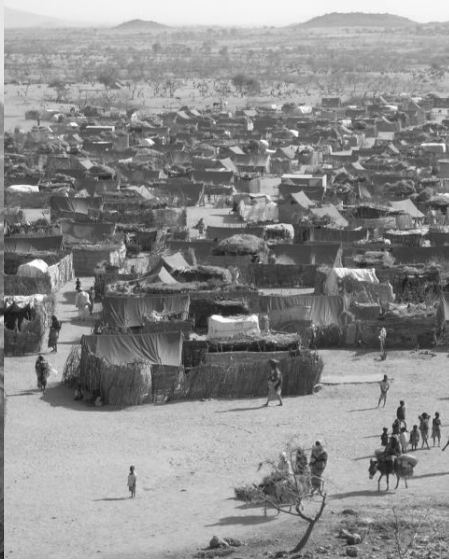
H17. Darfur Refugee camp - Wikipedia (2016)

H18. A Yazidi refugee camp - Fisher, T (2015)

H19. Kawergosk refugee camp - Druzin, H. (2013)

Camps in History

Great Lakes Refugee Crisis – Rwanda – 1994
More than 2 million people were exiled from their homes to neighbouring countries due to genocidal mass slaughter in 1994. Many of the refugees settled in large camps with over tens of thousands of people. Mortality rates at the camps were extremely high. Examples can be found in Zaire - the camps became militarised as well as politicised. During the First Congo War, in 1996, rebels invaded Zaire and helped the refugees return home. [20]

War in Darfur – Sudan – 2003
When in 2003 war broke out in Darfur, over 2.5 million people were forcefully displaced. Statistics show that more than 3 300 villages had been destroyed by 2009. There are still 2.6 million displaced persons in Darfur today, with over 250 000 refugees living in camps in Chad alone. [21]

Iraq war – Iraq – 2003
Throughout the last 30 years, a growing number of refugees have been leaving Iraq, resettling throughout the world. The war in 2003 resulted in the total displacement of around 4.7 million people, of which 2 million left the country altogether. Most of the refugees settled in neighbouring countries such as Jordan or Lebanon. The ones that left the country have resettled in urban centres across the world, rather than refugee camps. An example of a refugee camp in Iraq itself is the Yazidi refugee camp in Dohuk - which houses tens of thousands, and is well-supplied. [22][23]

Syrian Civil War – Syria – 2011
The most recent displacements are those due to the Syrian Civil War. It is an ongoing, multi-sided conflict, which has already exiled millions of people from Syria. They have spread almost everywhere, from Iraq, Jordan and Turkey to Germany and the greater EU. More than 200 000 Syrians have fled to Iraq, where after the Iraq war refugees fled to Syria. A large camp called the Kawergosk Refugee Camp is situated right outside Irbil. It houses both Iraqi and Syrian refugees.[24]

[20] Great Lakes refugee crisis - Wikipedia (2016)
[21] War in Darfur - Wikipedia (2016vwv)
[22] 2003 invasion of Iraq - Wikipedia (2016)
[23] Refugees of Iraq - Wikipedia (2016)
[24] With world's focus elsewhere, Iraq scrambles to house Syrian refugees - Druzin, H. (2013)

i

Informal settlements

I1. Syrian refugees in informal settlements - Bragale, C (2015)
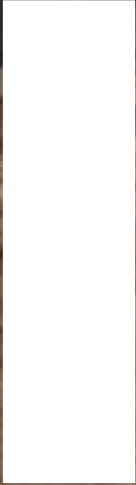
Definition

Areas where groups of housing units have
been constructed on land that the occupants
have no legal claim to, or occupy illegally.[1]
or
Unplanned settlements and areas where housing
is not in compliance with current planning and
building regulations (unauthorised housing).[1]

[1] Defintion informal settlements -
OECD (2015)
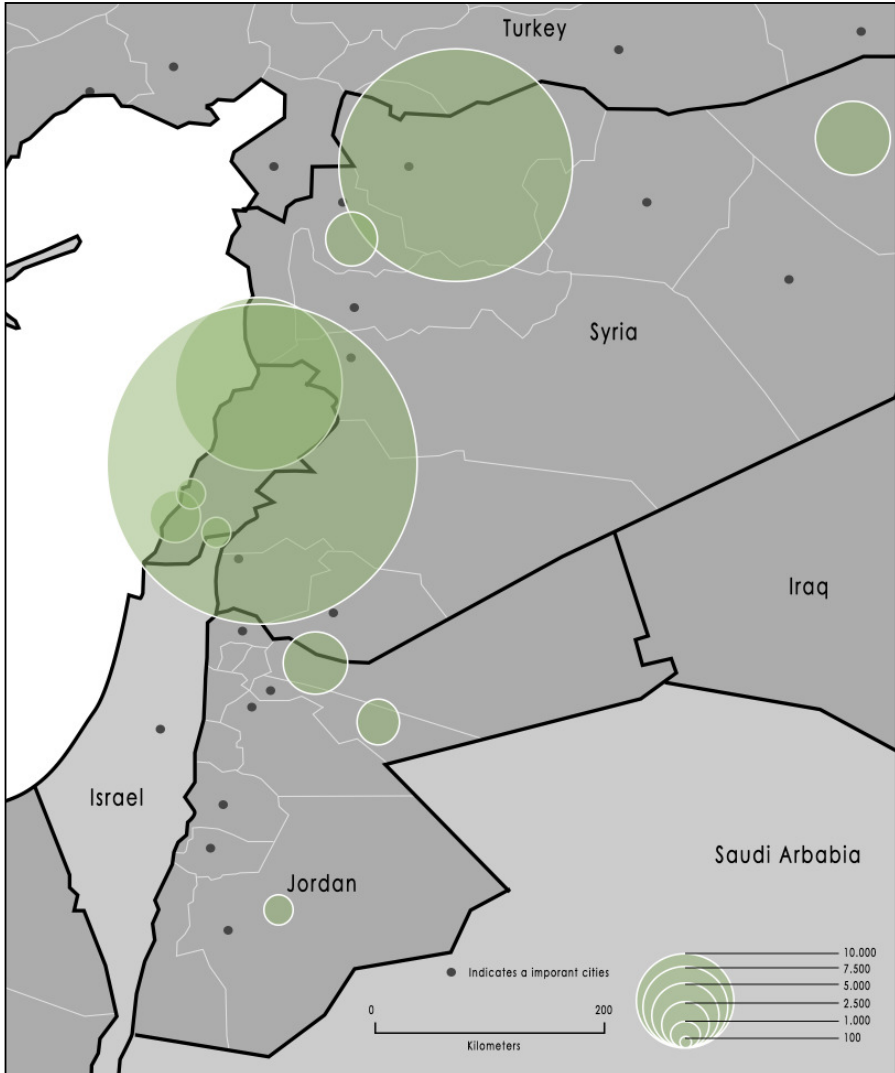
I2. Map indicating Syrian refugees staying in informal settlements - UNHCR (2015)

Extent

An estimated minimum of 180 000 individuals are living in Informal Tented Settlements (ITS) in and around Syria. The total amount of individuals that fled their residences is now being estimated to be at 9.2 million people, of which 6.5 million are Internal Displaced People (IDPs) and 2.7 million - refugees [2]. According to this data, two percent of IDPs and refugees are living in ITS. The largest number of refugees can be seen in Lebanon, where over 100 000 people are living in such settlements. The number of refugees in ITS in Jordan is estimated at 10 000, and there are more than 70 000 IDPs that have fled within the borders of Syria staying in settlements [3]. So although it only involves two percent of the total number of displaced people, the amount of people who live in ITS is still very high.

[1] Defintion informal settlements - OECD (2015)

[2] Syrian Arab republic - UNHCR (2015)

[3] Syrian refugees staying in informal tented settlements in Jordan/Lebanon - UNHCR (2015)

I3. Family's tent at an informal tented settlement near the Syrian border - AP (2015)

I4. Grown settlement as a new society - Khan, Q (2015)

The Rise of the ITS

The crisis which Syria has long been plagued by is what has triggered this massive tidal wave of refugees, as they search for a better life, far from the horrors of war. In fact, the refugee population growth rate is increasing steadily on a daily basis because of it. [4] As the number of refugees continues to soar, and the capacity of Jordanian and Lebanese host communities is becoming stretched thin regarding housing and shelter capacity, refugees, or those of them that can, take matters into their own hands and search themselves for a suitable place to stay. They end up on plots of land to which they have no legal right and live there in tents or other ramshackle shelters. Thus, a new Informal Tented Settlement is born.

Those who are either unable to (because of a lack of transport) or unwilling to (because of inter-community tensions) reside in one of the organised refugee camps and fail to afford appropriate shelter often chose to join one of the existing informal tented settlements. [5] The obvious fact of the matter is that the more refugees there are, the more these settlements will grow. This has led, in recent years, to a huge mushrooming of ITS. Aside from the settlements that are publically known, researchers believe that there are also plenty of ones that have managed to go under the radar. The majority of the inhabitants of these camps have nowhere else to go, so they are forced to stay there, despite the numerous risks involved, and wait until it's all over.

The issue surrounding ITS is not only a problem in Syria - neighbouring countries such as Iraq, Turkey, Lebanon and Jordan have also experienced a significant increase in recent years. Syrian refugees in Jordan have predominantly rented accommodation in urban and periurban areas or relied on humanitarian assistance channelled through official camps. Faced with the unaffordable rents and living costs in Jordanian towns, the unsuitability of remote refugee camps, and the prospect of scraping together a living through informal agricultural labour, over 10 000 Syrians have resorted to living in ITS across rural Jordan.

[4] Syrian Arab republic - UNHCR (2015)
[5] Syrian refugees in ITS in Jordan - UNHCR (2014)

I5. Informal settlement on edge of the city - Stevens, C (2015)

I6. Calais camp location - Robin Koenhen (2016) / BBC (2015)

Where and Why?

It is evident why ITS arise. Individuals who are not able to reach one of the camps or are unwilling to stay there (because of inter-community tensions), look for a better place on their own; once there is enough of them, a new ITS is created. Although the locations for these ITS might seem random, in practice there are deep underlying reasons why they arise in particular locations. [6] The predominant reasons are listed below:

Safety:
Safety, above all, is, naturally, paramount to any groups of refugees - since lack thereof is the prime motive behind people leaving their homes behind in the first place. The locations where ITS arise are thus chosen chiefly by their ability to provide shelter for their potential future inhabitants.

Economy:
Differs quite substantially from that in official camps, since in ITS there are no third party NGOs that intervene. For this reason, they are often forced to become at least relatively economically active. ITS often are located in places that provide good economic opportunities, so as to help their inhabitants sustain themselves. In practice, this often means at or near the outskirts of big cities, as this allows them to find jobs and become increasingly self-sufficient.

Resources:
There are many different kinds of ITS. Some are more developed than others, and they all differ substantially in terms of organisation. In all situations, the need for resources is ever present. Some settlements arise near natural sources of water, food or even wood, while others close to villages or cities so that their inhabitants can buy what they need from stores.

Transport:
Last but not least is transport. In the life of a refugee transport plays a crucial role - the accessibility of and need for transport is in many cases the deciding factor in regards to choosing a place to stay. Transport can also be seen in an entirely different way - take the "Jungle of Calais," for instance, where thousands of people are waiting in camps hoping to be soon able to cross the Channel to England [9]. It can thus be concluded that transport in many cases is of chief importance when determining an ITS location.

[6] Mapping the process of informal city making - Samper. J (2015)
[7] Why is there a crisis in Calais? - BBC (2015)

I7. Shelter of Syrian refugees - AP (2015)

I8. Poor living conditions in ITS - UNHCR Staff (2015)

98% : Tents
2% : Makeshift tent
0% : Other

Households with no access to sanitation : 18%

Water latrine:

Public : 66% use public latrine
Private : 16% use private latrine
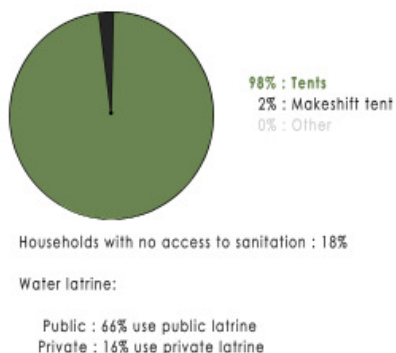
I9. Shelter types in ITS - R. Koenhen (2016) / UNHCR (2015)

Health

The population of the settlements, of which on average 75 percent is younger than eighteen years, are of poor living conditions. No schools, no jobs, no facilities and worse still: general scarcity of primary necessities. All this makes it unsurprising that health-related problems are very common in these settlements, especially due to the lack of vaccinations, leading to hazardous situations, whereby more than 82 percent of people have experienced medical problems at least once while living in their camp.

Poor hygiene is also a chief factor here. The lack of clean water supply, toilets and showers all make diseases more likely to spread. Along with the fact that the waste that these ITS produce is rarely ever processed or at least moved out of camp by the inhabitants - this creating breeding grounds for bacteria and disease-ridden pests to thrive in.

29% : Diarrhea
29% : Skin Disease
28% : Fever
12% : Respiratory Disease
2% : Other

Individuals receiving medical treatment : 82%

Vaccination Rate:

Polio : 48% of children under 18
Measles : 59% of children under 18
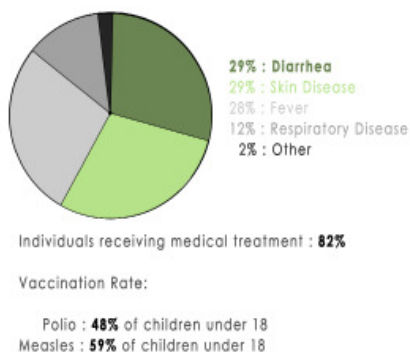
I10. Diseases in ITS - R. Koenhen (2016) / UNHCR (2015)

Shelter

By definition, as they are informal, access to food, water, sanitation, health and education centres, and other basic human services is not officially established and, thus, one is often faced with considerable challenges to acquire them. Moreover, the shelters are often sub-standard, since they are tents [6][10].

Overall, the majority of households reside in tents or "makeshift shelters" the latter referring to tented shelters reinforced with corrugated metal, wood bracing or plastic sheets [5]. Naturally high levels of protection are not often associated with this type of structure - neither from the elements nor from other residents[10].

[8] Syrian refugees in ITS in Jordan - UNHCR (2014)

I11. Refugees in Lebanon are living in small settlement on farm land - Covenant companion (2013)

I12. Zaatari refugee camp - Wikipedia (2015)

Parameters

At first glance, refugee camps and informal settlements have much in common, mostly because they share the same function, namely: housing refugees. The disparities between the two are far more numerous than any similarities they might share. The most characteristic differences are reflected in the following points [7].

1. Freedom of Movement
The organisation and clear boundaries of camps, make freedom of movement more limited than in the settlements, where people can go wherever they want, whenever they want.

2. Mode of Assistance and Economics
Assistance is always present in camps. They provide medical care, necessities for life and organise the camps. These are often precisely the elements that are lacking in settlements.

3. Population Size and Density
Because of the relatively safe conditions in the camps, demand for accommodations is very high. The camps take immense proportions and, thus, the density of people is incredibly high. This is much less the case in settlements.

[9] Camps versus settlements - Schmidt, A (2005)
[10] Informal Tented Settlements in Jordan: A Multi-Sector - http://www. reach-initiative.org/wp-content/ uploads/2014/02/REACH-UNICEF_In- formal

4. Location and Shelter
The shelters in both situations are far from ideal. Residences in settlements almost entirely consist of tents. Conversely, in camps, you can also find dwellings of slightly better quality. Often, there is also the opportunity to stay in one of the central public buildings.

j

Jordan

Definition

Jordan, officially the Hashemite Kingdom of Jordan, is an Arab kingdom in Western Asia, on the East Bank of the Jordan River. It is bordered by Saudi Arabia to the east and south, Iraq to the north-east, Israel and Palestine to the west and of course Syria to the north [1]. Because it borders Syria, it often is the first and best choice for many refugees to flee. The large numbers of refugees who cross the border result in a constant pressure on Jordan.

[1] Defintion Jordan - Wikipedia(2016)
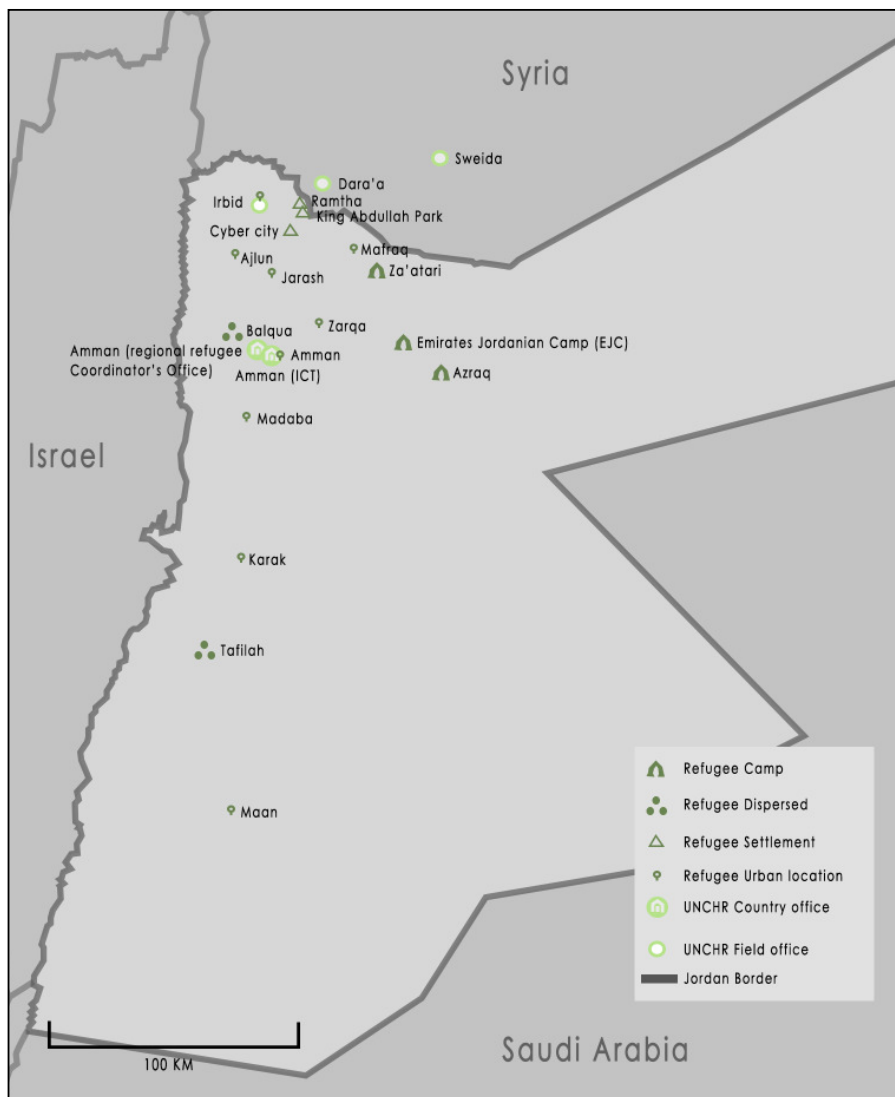
J2. Important locations in Jordan - R.Koenhen (2016) / UNHCR (2015)

Type of populaiton	Origin	Number of refugees
Refugees	Iraq	36.700
	Syrian Arab Rep.	624.650
	Various	1.600
Asylum-seekers	Iraq	450
	Various	1.600
Total		665.000

J3. Refugees in Jordan - R.Koenhen (2016) / UNHCR (2015)

Numbers

Jordan is home to hundreds of thousands of refugees, mainly from Syria - 624.650 individuals in total. The three organised refugee camps - Zaatari, Azraq and EJC - together accommodate roughly 120,000 people. The rest necessities amongst the locations shown on the map, and another 10,000 are living in Informal settlements

Funding

Such large numbers of refugees are, due to the inhospitable landscape, unable to fully support themselves. For this reason, the demand for funds toward their cause in Jordan is high. To this date, the a total of 1,105,517,045 USD is needed, yet only 80,729,149 have been received, about 7 percent of the above total, 1,024,787,896 USD short.

J4. Syrian refugees make their way to Azraq - Laup, K (2015)

Urban Refugees

In Jordan, a significant amount of all refugees are housed in one of the three main camps, yet it is not the majority. There are many refugee settlements and dispersed locations strewn all over the country. Roughly 80% of all refugees in the nation live outside of official camps, sometimes in organised or concentrated areas. Assistance for these places is provided from one of the UNCHR country or field locations, which can be found mainly in the areas where camp density is at its highest: in the north of Jordan. Refugees often go on their own into one of the nearby cities. Some of these refugees are industrious and self-sufficient enough to be able to afford to rent a house. Others must rely on acquaintances and friends to find a place to move into, often with other strangers. The third group stays in abandoned buildings or self-made shelters.

Azraq Refugee Camp

Azraq is the largest refugee camp in Jordan, second only to Zaatari. More than 30 000 individuals reside in the former today. From 2013 there has been a steady but continuous increase of refugees in this camp. Said camp is in no way inferior regarding size to Zaatari - it has the capability of housing more than 150.000 refugees in relatively safe shelters, yet no more than 30,000 refugees reside there. Despite having been intended to become world's second largest camp, occupancy is currently sitting at the meagre 25 percent. As an explanation for this staggering vacancy, it is thought that, as it is far from any large city, the camp is seen as being too isolated and hard to reach by potential residents [2].

[2] Azraq refugee camp - Birell, I

11.7
6.7
10.5
0.9
19.9

J5. Demopgraphics in Azraq - R.Koenhen (2016) / UNHCR (2015)

■ 0 - 4
■ 5 -11
■ 12 - 17
■ 18 - 59
■ 60+
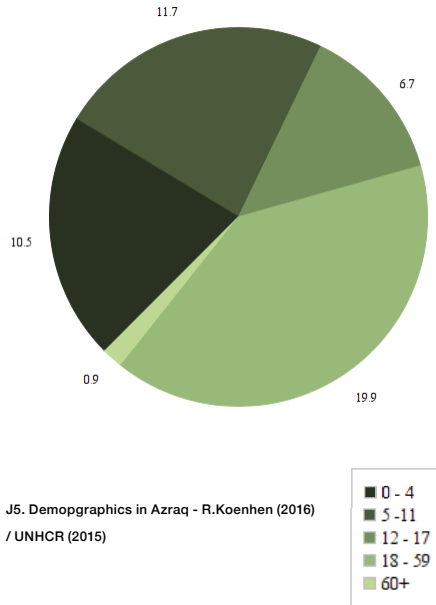
J6. Azraq refugee camp, Jordan - Y, Lee (2015)

Source: DigitalGlobe/Google

J7 Azraq refugee camp, Jordan - Y, Lee (2015)

Emirati Jordanian Camp (EJC)

The Emirati Jordan Camp (EJC) is the third and smallest of the three existing camp in Jordan and is also known under the name Murijep al Fhoud. Herein reside roughly 7 000 refugees from Syria. Similarly to Azraq, the prevalence of men and women is relatively equal, with the latter being 50.7% of the camp's population. The camp is built to cope with the ever-increasing flow of Syrian refugees, as it was expected that Zaatari would not have sufficient capacity. Due to the relatively safe shelter conditions and the organisation, the camp is also known as the ''Five-Star Refugee Camp''.

Legend
0 - 4
5 -11
12 - 17
18 - 59
60+
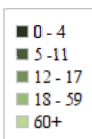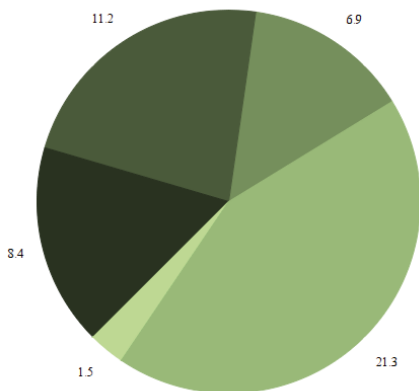
J8. Demographics in EJC- R.Koenhen (2016) / UNHCR (2015)

J9. EJC camp, Jordan - Mazraawi, K (2013)
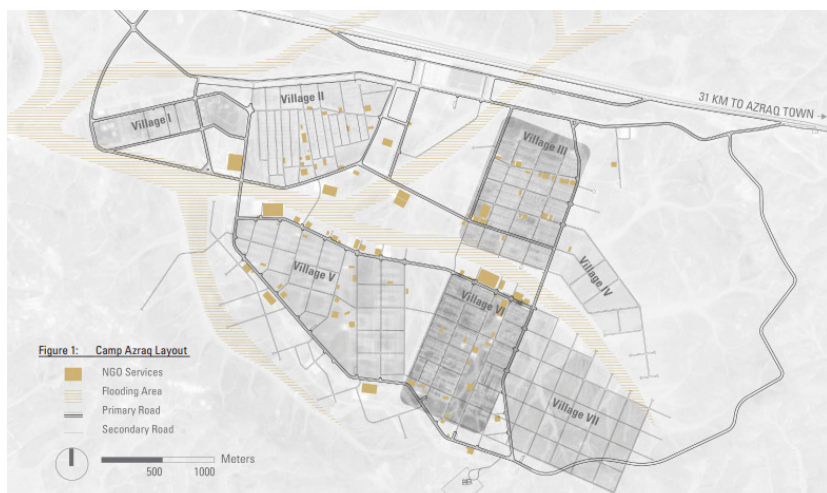
J10 EJC camp, Jordan - Y, Lee (2015)

Informal Tented Settlements   Magnitude of the Problem in Jordan

Lebanon

Syria

Iraq

Irbid
1 Settlement

Ajloun

Arash

Al Balqa

Israel

Madaba

Amman

Al Zarqa
13 Settlements

72 Settlements

Al Marfraq

Al Marfraq

Al Zarqa

Amman

22 Settlements

Al Karak

Al Tafilah

16 Settlements

Maan

1 Settlement
Al Aqaba

Saudi Arabia

Number of Informal Settlements
by governate

41-80
21-40
11-20
2-10
0-1

J11. Map indicating Syrian refugees in ITS in Jordan - R.Koenhen (2016) / UNHCR (2015)

Governorate	Total number of people/governorate	Total number of ITS/governorate
Al Aqaba	25	1
Al Mafraq	5.756	72
Amman	3.540	22
Irbid	163	1
Maan	501	16
Zarqa	553	13
Total	10.538	125

J12. Population in ITS in Jordan - R.Koenhen (2016) / UNHCR (2015)

Scope

A total of 10 538 individuals is divided among 125 Informal Tented Settlements (ITS) located in six governorates of Jordan. With an estimated growth of 113 per cent per six months, the problem about the ITS is reaching immense proportions.

ITS in Jordan

Although said problem is less dire than that in Lebanon, there are still thousands of lives at stake. The highest density of settlements is in northern Jordan. A potential explanation for this development is that most refugees are from neighbouring Syria and are unable to travel far. There are also many people who are leaving larger camps due to the rising tensions there and move to less-populous nearby settlements. Syrian refugees in Jordan have predominantly rented accommodation in urban and peri-urban areas or relied on humanitarian assistance channelled through formal camps. Faced with the unaffordable rents and living costs in Jordan's towns, the unsuitability of remote refugee camps, and the inviting prospect of etching out a living through informal agricultural labour, over 10 000 Syrians have resorted to living in Informal Tented Settlements (ITS) all across rural Jordan.

J13. Syrian refugee boy in ITS - Laup, K (2015)

J14. Zaatari refugee camp - Wikipedia (2015)

Refugees

It should be clear that a country like Jordan can't handle problems such as these unnoticed. The unintended population growth in the last few years, of course, brings numerous problems with it. Beyond the mere fact that refugees take up much of the living space, they also cost Jordan copious amounts of money. Many facilities in Jordan are also put under a lot of pressure; public buildings such as schools have been repurposed and can barely handle the perpetually increasing strain of refugee children. However, Jordan has to endure more than just its refugee problems - for many years it has been experiencing economic and political tension, in addition to the ever-present threat of ISIS.

Jordan's Issues

ISIS
Not only the direct threat posed by ISIS but the indirect consequences as well exact a significant toll. The former two major trading partners of Jordan - Syria and Iraq - have gone up the spout due to the turmoil and violence in the area, leaving one to wonder when Jordan's turn will come. All this has made the Middle East's future seem bleaker than ever [2].

Palestine
Make no mistake; hardly a day passes by when Jordan is not reminded that one of the central causes of instability in the region is the Palestinian issue. No other country is as politically, socially, demographically, historically, and geographically tied to the Palestinians, and no other country's political dynamics are as adversely affected by their ongoing predicament. The lack of progress on establishing a two-state solution - and the immeasurable human suffering in Palestinian territories - continues to weigh heavily on Jordan, including on the fate of the more than 1.8 million registered Palestinian refugees in Jordan [3].

Economy
Since 1948, and especially after 1967, the political instability caused by the Arab-Israeli conflict has been casting its shadow on Jordan's economic development. Despite the numerous disadvantages it has been faced with, it is hard to classify Jordan's progress in the past quarter of a century as anything less than a resounding success. Reforms saw the country's economy boom in recent years - an eightfold GDP increase between 1990 and 2014 - and growth averaged on 7% per annum from 2000 to 2008, according to their Central Bank. Since then, growth has slowed, and private investment has dwindled - despite achieving relative financial stability, Jordan still relies heavily on foreign aid. One of the biggest problems there could very well end up being widespread unemployment. More than 70% of people in Jordan are under the age of 29. The economy would have to grow 6% each year just to supply them all with jobs, and at the current rate of around 3%, only half of the required jobs will be created [3].

Full House
The wars in the region have led to unprecedented massive human relocations. Jordan epitomises the political and economic challenges that one country's conflict can impose on its neighbour. The nation is now hosting roughly 1.3 million refugees who fled the brutal four-year civil war that is consuming Syria - and they're not cheap. The costs of providing for these refugees amounts to over 2.9 billion USD, or 8% of Jordan's GDP, according to their government, of which only 5.5% has been covered by the international community. The influx has also placed immense strain on public services. 140 000 Syrian children have been enrolled in Jordan's already crowded public schools, and housing costs in the north have risen by a whopping 300%, according to data provided by Jordan. And with the arrival of more than 200 000 Syrian men and women of working age - around 10% of Jordan's current workforce - who are willing to work at below-market wages, there are mounting pressures on the labour market these [3].

[3] Jordan's five biggest challenges - I. Awadallah (2015)

Jordan's Future

Behind the stunning scenery, a country is hidden, drowning in troubles. The pressure of the Israel-Palestine conflict, the looming threat of ISIS, deteriorating financial situation and, above all, the refugee surplus are pushing Jordan to the brink. The way they deal with refugees, the organising of camps, providing financial assistance and protection is unorthodox, to say the least. Hundreds of thousands of refugees from Syria find relative safety in Jordan. They receive help in the providing of the core necessities of life, medical care and shelter from organisations like the UNHCR.

The future of the Jordan monarchy is still uncertain [4]. The role they are playing in different wars is starting to take its toll. The monarchy escaped the tumult of the Arab Spring and is atempting reforms, but its future is open to debate [5]. Should King Abdullah II fail to implement real political and economic changes, Jordan could easily fall into the hands of the Muslim Brotherhood group or turn into a Palestinian state [3], even though their positive ties with the US might circumvent the worst. Together, they are fighting ISIS, and Jordan is simultaneously negotiating with Israel for a peaceful end to the conflict.

[4] Future of Jordan - Gatestone institute (2011
[5] Anne Gearan - The Washington post (2015)

K

Kenya

Definition

Kenya is situated in the west part of Africa and borders
Somalia, Ethiopia, South Sudan, Uganda and Tanzania.
It plays a crucial role in the reception of refugees
from Somalia and South Sudan. They house in total
more than 662 000 displaced persons, more than 462
000 of which hail from Somalia[1]. Having fled their
country due to internal conflict and lawlessness[2].

[1] Kenya - UNHCR (2015)
[2] Kenia - Stichting Vluchteling
(2014)

Territory
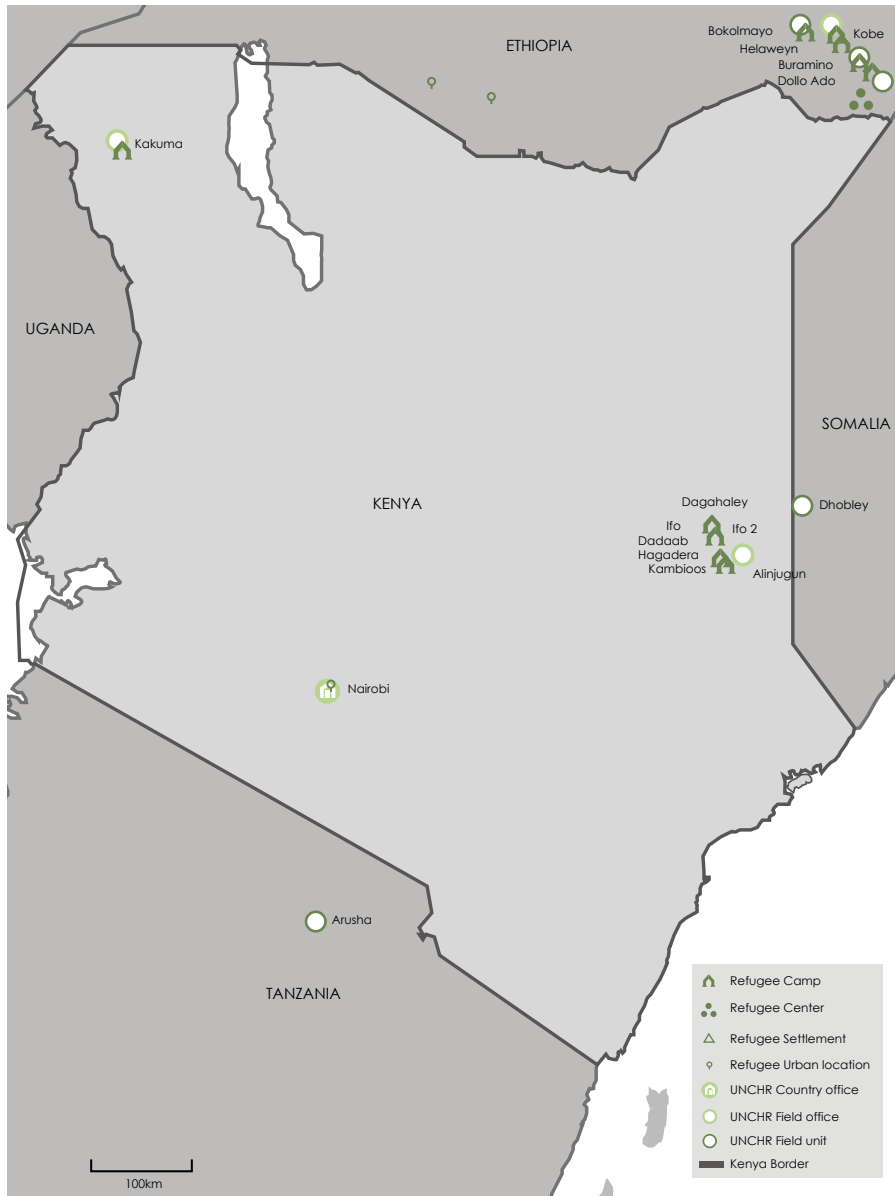
K2. Overview of the main places in Kenya - UNHCR (2015)

Facts in Numbers

Kenya is home to more than a half-a-million refugees, mainly from Somalia, which account for almost 463.000 individuals. Roughly 60% of the refugees and asylum-seekers in Kenya have fled general insecurity in their respective countries since the 1990s. It is predicted that by the end of 2015, refugees from Somalia will represent nearly 70% of people of concern to UNHCR in Kenya, followed by the South Sudanese at 20%, and Ethiopians at 4%.[1]

In the Kenyan refugee camp, Dadaab, live nearly half-a-million people, making it the largest refugee camp in the world. Most refugees there are from Somalia, a country that has suffered for decades under internal conflict, civil war and severe drought. Another big refugee camp is located in the North-West of Kenya: Kakuma. Here reside thousands of South Sudanese refugees.[2]

Type of population	Origin	Number of refugees
Refugees	Ethiopia	21,300
	Somalia	462,970
	South Sudan	97,780
	Various	14,690
Asylum- seekers	Congo	11,610
	Ethiopia	8,400
	South Sudan	1,060
	Various	18,880
Stateless	Stateless	20,000
Total		662,850

K3. Overview of Dadaab in Kenya - Digital GlobeInc. (2015)

Dadaab, Kenya

Population	471.000
Somalians	447.450
Surface Area	50 km2
Pop. Density	500 inhabitants per hectare

Somalia is clearly the chief supplier of the majority of the 471 000 refugees who are in Dadaab. In addition, over 5% of the refugees are from Ethiopia, and an even smaller minority are from multiple other countries including South Sudan, DR Congo, Sudan, Burundi, Eritrea, Uganda and Rwanda.[2] The largest refugee camp in the world, Dadaab, is about 100 kilometers from the Somali border. In 2012, the camp had been existing for twenty years and now includes five sub-camps. It currently provides shelter to over 471 000 refugees but was originally built for just over 90 000, roughly 95% of which from Somalia. In said camp are located 38% of the total of nearly 585 000 refugees currently residing in Kenya.[2]

Shelter
Refugees in Dadaab typically live in tents made of plastic sheeting and distributed by the UNHCR.[2] Despite the recent repatriation of some residents, the camps are still immensely overcrowded and contain over three times as many people as were intended. There are no formal living structures, and residents have built makeshift homes for shelter, to escape the heat of the sun. On average, four people live together in each household.

Economy
In order to try to increase further the economic independence of refugees residing in Dadaab, some organisations have initiated micro-finance programs, which are particularly important for encouraging men and women to start their businesses. However, recent scholarly research has identified some flaws with these real high-interest rates, which, given the financial instability of the region, causes the initiative to do more harm than good. Living in a community with other destitute individuals can also make it difficult to turn a profit from a business venture, as potential customers are not able to afford the service or product that is on sale. Others have argued that it is beneficial to individuals as a short-term solution to escape poverty, but that it does not improve the economy of either community nor country as a whole.

■ Ethiopia
■ Somalia

K4. Origin of refugees in Dadaab - UNCHR (2015)

Kenya's Conflict

K5. Al Shabab - AP (2016)

Kenya's Conflict

Population	45 million
Surface Area	580.367 km²
Capital	Nairobi
Head of state	President Kenyatta
Conflict	1988 - Present Day (Somalia, South Sudan)
Refugees	428 947
Displaced Persons	412 000

Kenya plays a significant role in the reception of refugees from neighbouring Somalia and South Sudan. Hundreds of thousands of people have fled the former over the years due to internal conflict and disorder. It also houses refugees from Ethiopia and the Republic of Congo. The country has been hit by many severe droughts in recent years.

Since the end of 2011, safety in and around the camps has been steadily decreasing - having there been several attacks with explosive substances, aid workers kidnapped and cars hijacked. Some leaders within the refugee community have also been killed. This growing insecurity is chiefly due to the radical group Al-Shabaab in Somalia. The Kenyan army has since withdrawn from Somalia to fight Al-Shabaab and the growing threat they pose.[2]

In October 2011, the Kenyan government declared war on Al-Shabaab, blaming them for the kidnappings of Western tourists and employees of MSF. In 2012 air raids began against the positions of Al-Shabaab in southern Somalia. Shortly after that, hundreds of Kenyan soldiers crossed the border. The attack took place in collaboration with official Somali forces.

[3] Al-Shabaab dreigt Kenia met invasie - ANP (2013)

In response, Al-Shabaab threatened to invade neighbouring Kenya if their troops did not withdraw.[3]

SOUTH
SUDAN

ETHIOPIA

Bokolmayo   Melkadida

Kobe

Kakuma

UGANDA

SOMALIA

KENYA

Dhobley

Dagahaley
Ifo   Ifo 2
Dadaab
Hagadera
Kambioos

M Nairobi

TANZANIA

NUMBER OF NGO'S ACTIVE

Nu data
1 - 3
3 - 6
6 - 9
9 - 12
12 - 30

ACTIVE NGO'S
This only features NGO's who reported
their activities

100km
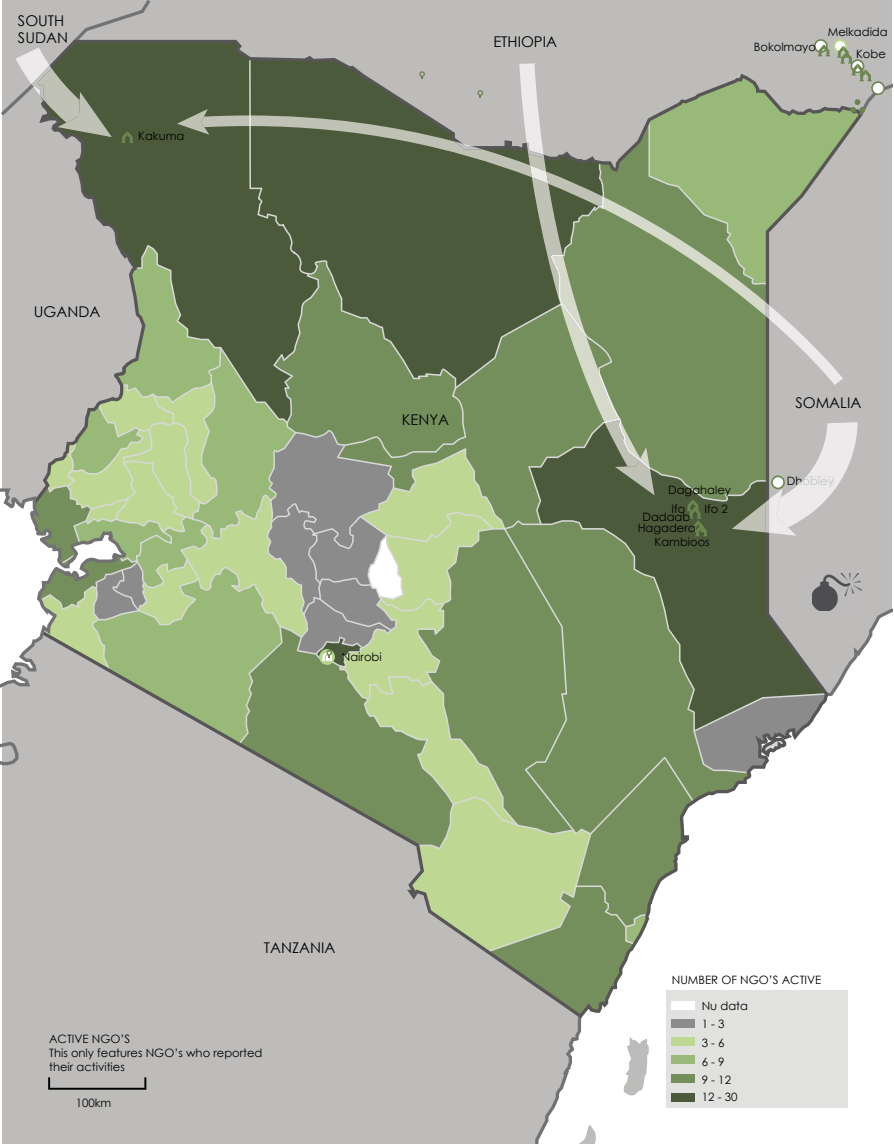
K6. Active NGO's in Kenya - OCHA (december 2014)

SOUTH SUDAN

ETHIOPIA

Melkadida

Bokolmayo · Kobe

Kakuma

UGANDA

KENYA

SOMALIA

Dhobley

Dagahaley
Ifo · Ifo 2
Dadaab
Hagadera
Kambioos

Nairobi

TANZANIA

NUMBER OF NGO'S

Nu data
1 - 3
3 - 6
6 - 9
9 - 12
12 - 30

SHELTERS AND NFI
NGO's who takes care for shelters and NFI

100km
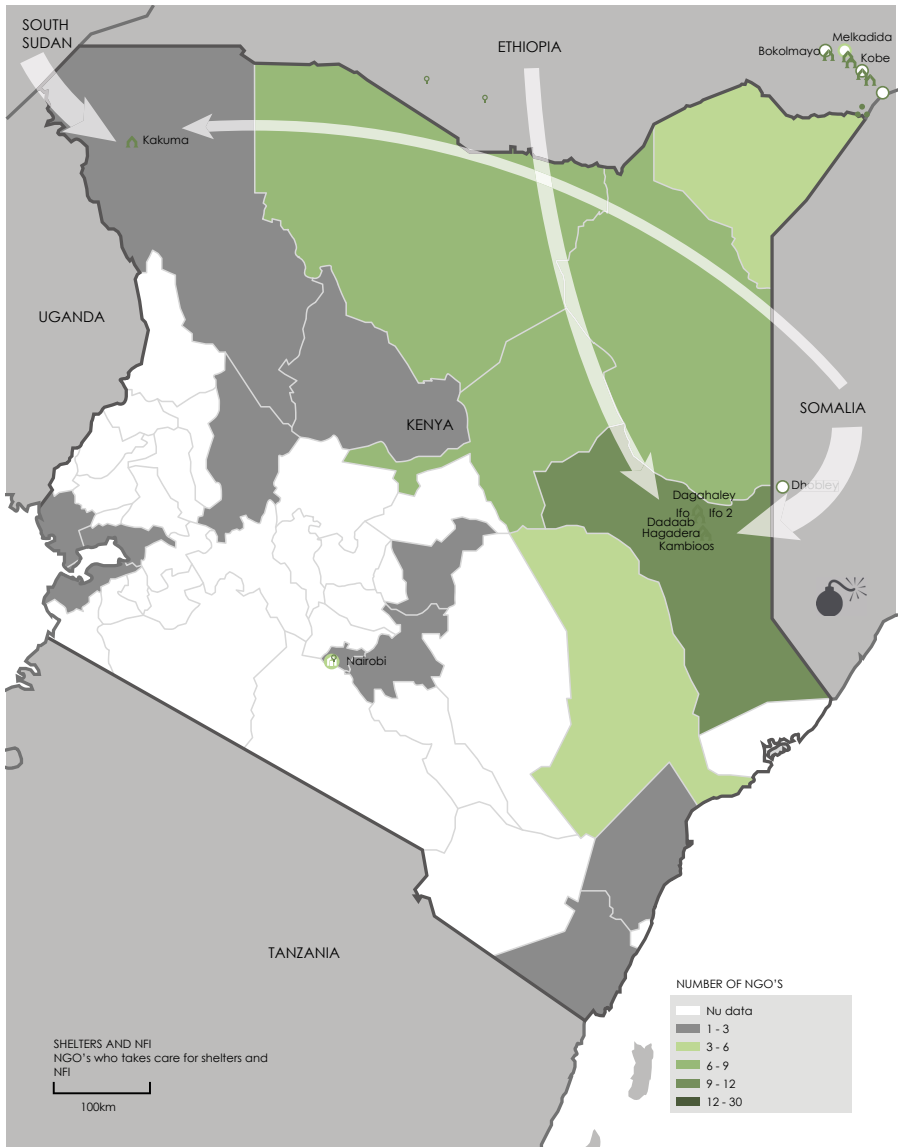
K7. NGO's in Kenya who takes care for shelters and NFI - OCHA (december 2014)

Kenya's Future
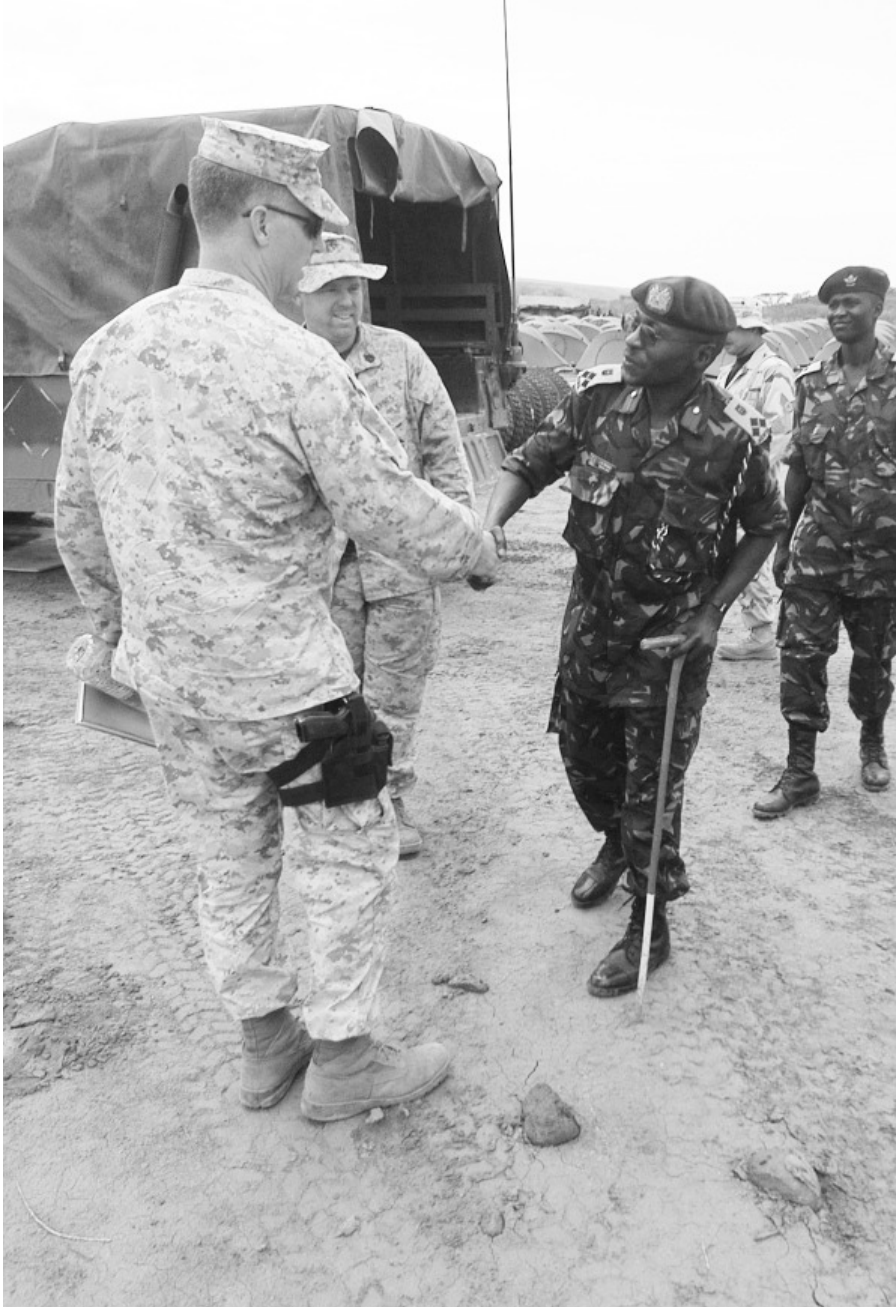
K8. Overview of Dadaab in Kenya - Digital GlobeInc. (2015)

Kenya's Future

Based on the experience and developments of 2014, chief importance in 2015 and 2016 is expected to remain in the areas of life-saving and life-sustaining support, and the continued pursuit of sustainable and durable solutions. The top priorities are projected to be preserving access to asylum and international protection for asylum-seekers and refugees, delivering essential life-saving services in safety and security, providing basic shelter, primary health care, clean drinking water, sanitation and hygiene services, enabling access to education, acquisition of marketable skills, and work opportunities, as well as supporting voluntary repatriation, resettlement and requests for alternative residency status. Strategies to achieve the desired outcomes include engaging and coordinating with interested stakeholders to provide technical and material support to governmental, non-governmental and community-based awareness-raising and capacity-building efforts as part of a broader and integrated solutions framework for refugees and host communities. Community-based, protection-compliant approaches in law and order as well as child protection and sexual and gender-based violence (SGBV) prevention and response activities will also be implemented. The Government's reception, registration, documentation, refugee status determination (RSD) and camp management capabilities will be consolidated, and UNHCR will empower community-based management of service delivery infrastructure. The joint global education strategy of the UNHCR, UNICEF and the Government, adapted to local contexts and contributing to child protection and SGBV responses and prevention, will be implemented, and durable solutions and livelihood opportunities - enhanced. The UNHCR will continue to pursue coordinated advocacy and strategic interventions to prevent statelessness among at-risk and refugee-hosting communities.[4]

[4] Needs and strategies, Kenya - UNCHR (2015)

Lebanon

Definition

Lebanon offers shelter to more than a million Syrian refugees, as they flee their war-torn country.

Territory
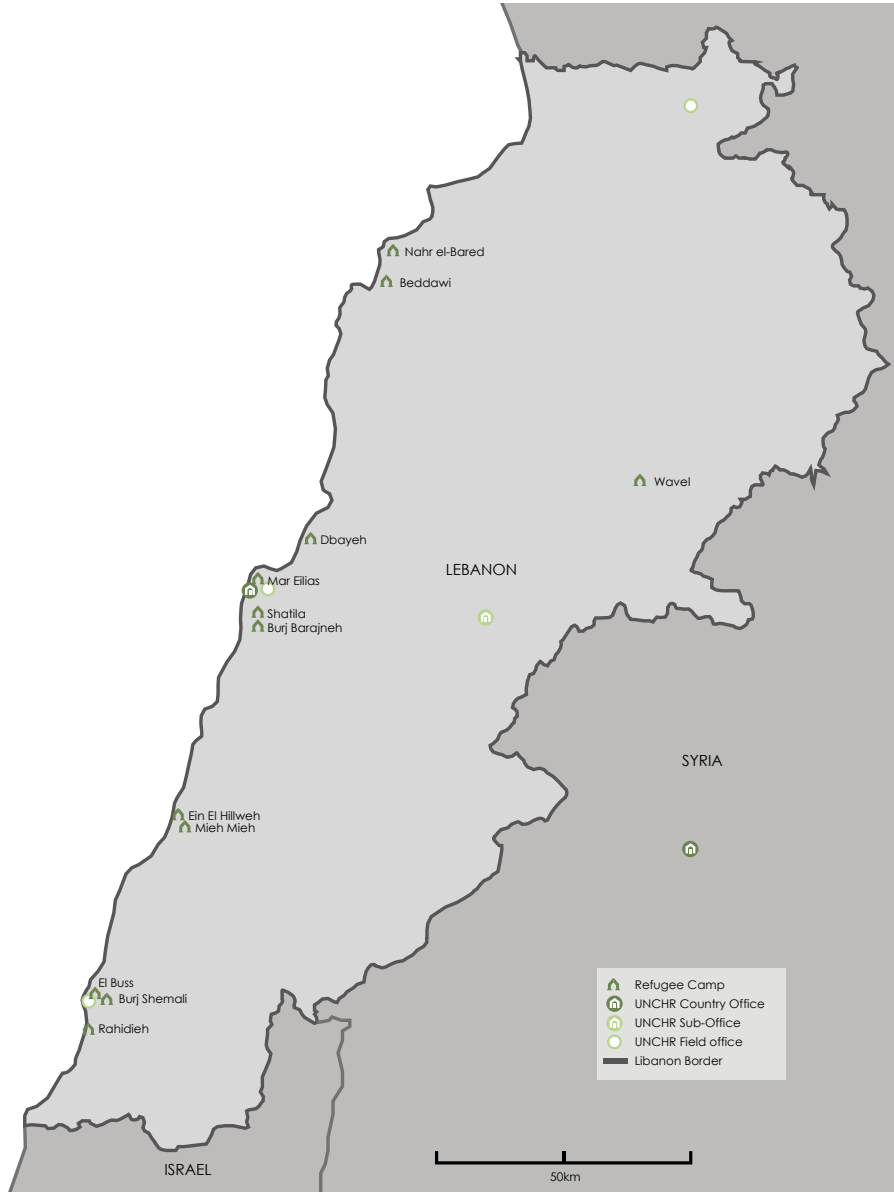
L2. Overview of the main places in Lebanon - UNHCR (2015)

Facts in Numbers

Syrians continue to make up the bulk of refugees in Lebanon. According to current projections, there will be over 1.8 million registered Syrian refugees in Lebanon at the start of 2015.[1]
Only 14% of these refugees reside in camps. The rest of them have found shelter with host families, in abandoned public buildings, or live in self-built shacks and tents.
It four that there are tens of thousands of stateless people in Lebanon, Syrian refugees born there being particularly at risk. A survey in 2014 showed that of the 5 779 Syrian newborns, 72% do not have an official birth certificate, raising concerns on the recognition of their nationality by Syrian authorities.[1][2]

[1] Lebanon - UNCHR (2015)
[2] Wikipedia -18th Street gang (2016)

Type of population	Origin	Number of refugees
Refugees	Iraq	6,100
	Sudan	170
	Syrian Arab Rep.	1,835,840
	Various	250
Asylum- seekers	Iraq	3,000
	Sudan	300
	Various	500
Total		1,846,150

L3. Refugees in Lebanon - UNHCR (2015)

Urban Refugees: Distribution
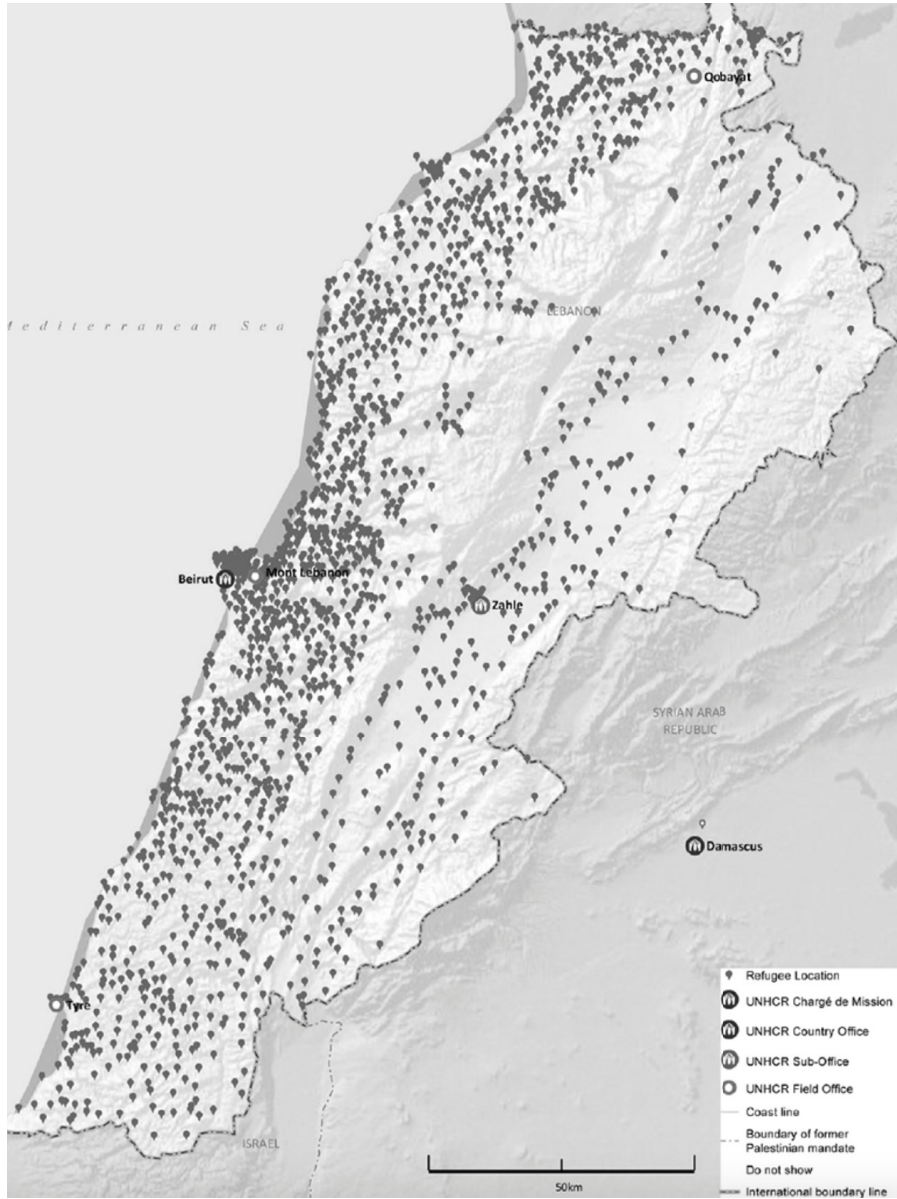
L3. Urban refugees in Lebanon - UNHCR (2015)

Urban Refugees

Lebanon is one of the countries where formal refugee camps have never been setup, and therefore one of the best test cases to try alternative approaches. However, being the government a non-signatory of the 1951 Refugee Convention it makes things all the more challenging. Legal protection for refugees in the country is limited, and now, new government policy implemented just this year has made the situation tougher for both aid groups and refugees. The government now requires Syrian refugees staying in Lebanon to pay 200 USD for a residency permit, secure a signed contract with their landlords if they are renting, or have someone in the government or a Lebanese organisation or company to vouch for them. Not only that, but the government is also asking them to sign a document pledging not to work in the country — supposedly to weed out those who are taking advantage of the Syrian crisis to find better economic opportunities in Lebanon. Resulting that Syrians won't have any means to support themselves or become self-reliant, and as a result, many refugees may go into hiding, making it difficult for aid agencies to reach them to provide assistance and protection or monitor their conditions. Worsening the problem ever still is the fact that the government is asking the UNHCR to stop registering any new refugees. This decision stems from the economic pressures the government is experiencing as host to more than 1 million refugees. Tensions have risen between them and host communities, with the former often being regarded as competition for the limited resources and opportunities in the country. But a UN official who spoke anonymously notes that the rules are much too harsh under the current circumstances, and that the UNHCR is currently advocating for the review thereof on the part of the Lebanese government, taking into account its political and security concerns, while ensuring refugees have access to their most basic needs and survive in Lebanon under tolerable conditions. The UN refugee agency also explains the critical role of registration and why it is important for it to continue. A larger emphasis is placed on allowing Syrians to look for work, as most of them have already exhausted their own resources and would need to find the means to support themselves beyond the aid they receive.[3]

[3] Devex - The key challenges in today's urban refugee setup

Conflict

L5. Conflict in Syria - AFP (2015)

Conflict

Population	5.9 million
Surface Area	10 400 km²
Capital	Beirut
Head of state	President Suleiman
Conflict	2011 - Present
	Day (Syria)
Refugees	1 069 100
Displaced	
Persons	19 719

[4] Oxfam International -
https://www.oxfam.org/
[5] Libanon - Stichting Vluchteling
(2014)

Because of the large-scale violence that has been taking place for over three years in Syria, more than 13.5 million people are in need of urgent humanitarian aid there. More than four million Syrians have already crossed the border to either Turkey, Jordan, Iraq or Lebanon. In Lebanon, they live mostly in urban areas. They found shelter with host families, staying in abandoned public buildings or living in self-built shacks and tents. They do not reside in organised camps, making it difficult to control the flow of refugees. Most NGOs are incapable of providing assistance in cities, and it will, therefore, be difficult to reach those refugees.[4] Encouraged by the huge popular uprisings in the region, there were mass demonstrations in March 2011 against the Syrian government of President Bashar al-Assad in several cities in the country. The Syrian regime took firm action against the insurgents who had joined forces with the Syrian National Council and other opposition groups. Cities are under heavy fire, and entire neighbourhoods are under siege. Three years later, the conflict still continues and has currently reached a critical stage. The violence is increasing, and the situation has deteriorated. According to the UN, violence has led to the death of more than 200 000 people. More than half of the Syrian population urgently needs humanitarian aid. Many Syrians are fleeing from the violence in neighbouring countries. According to UNHCR officials, since the end of January, more than 4 million Syrians are living in Turkey, Lebanon, Iraq, Jordan and North Africa.[4][5]

Distribution of Accommodation

REGISTERED REFUGEES HOUSEHOLDS
Households by District

Nahr el-Bared
Beddawi

LEBANON

Wavel

Dbayeh

Mar Elias
Shatila
Burj Barajneh

SYRIA

Ein El Hillweh
Mieh Mieh

El Buss
Burj Shemali
Rahidieh

REGISTERED HOUSEHOLDS
REFUGEES

	1 - 2,500
	2,500 - 5,000
	5,000 - 10,000
	10,000 - 15,000
	15,000 - 27,000

ISRAEL

50km
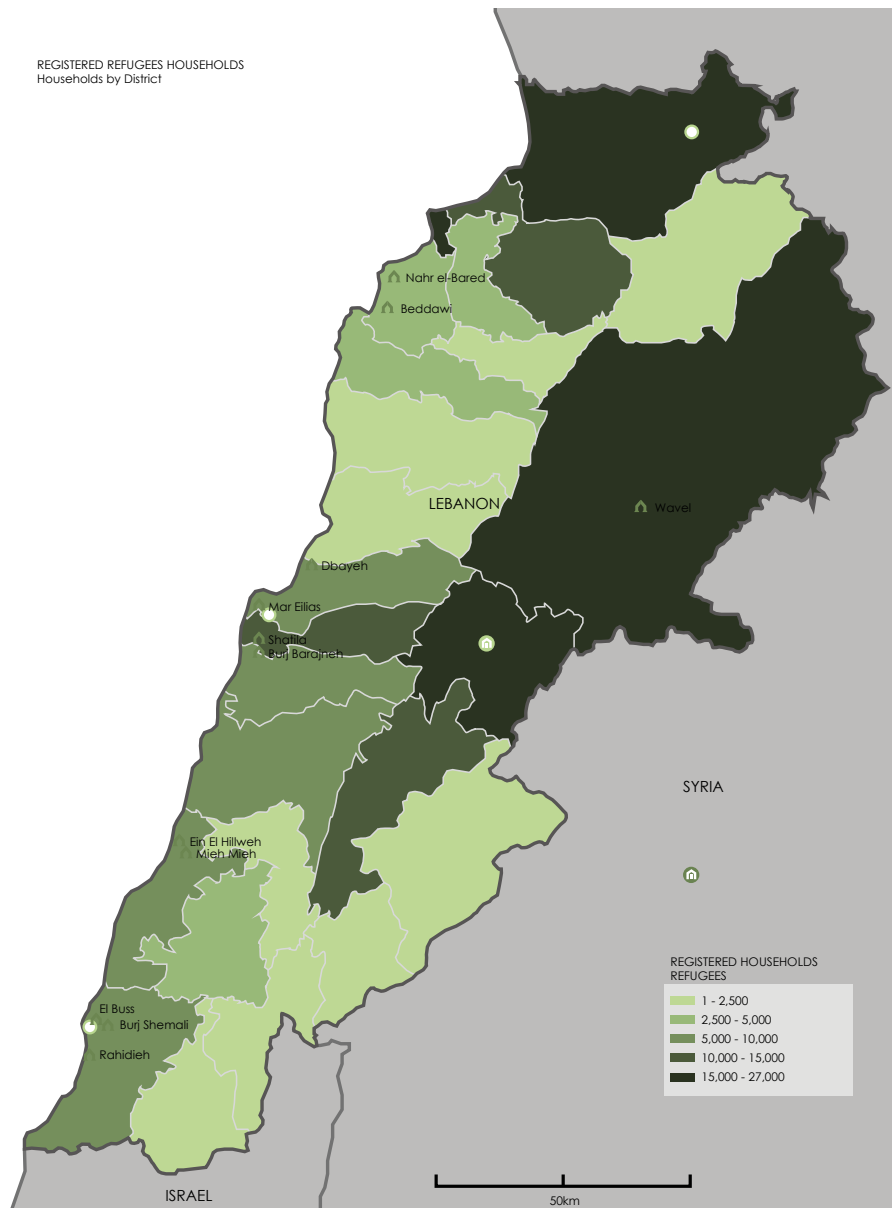
L6. Registered refugees households in Lebanon - OCHA (december 2014)

TEMPORARY SHELTER
Ligtweight solution with a life span up to
12 months, this emergency shelter
could be a winterized tent or temporary
shelter.

Nahr el-Bared
Beddawi

Wavel

Dbayeh

LEBANON

Mar Eilias
Shatila
Burj Barajneh

SYRIA

Ein El Hillweh
Mieh Mieh

# of families assisted

	0
	1 - 50
	51 - 100
	101 - 200
	201 - 450

El Buss
Burj Shemali

Rahidieh

ISRAEL

50km
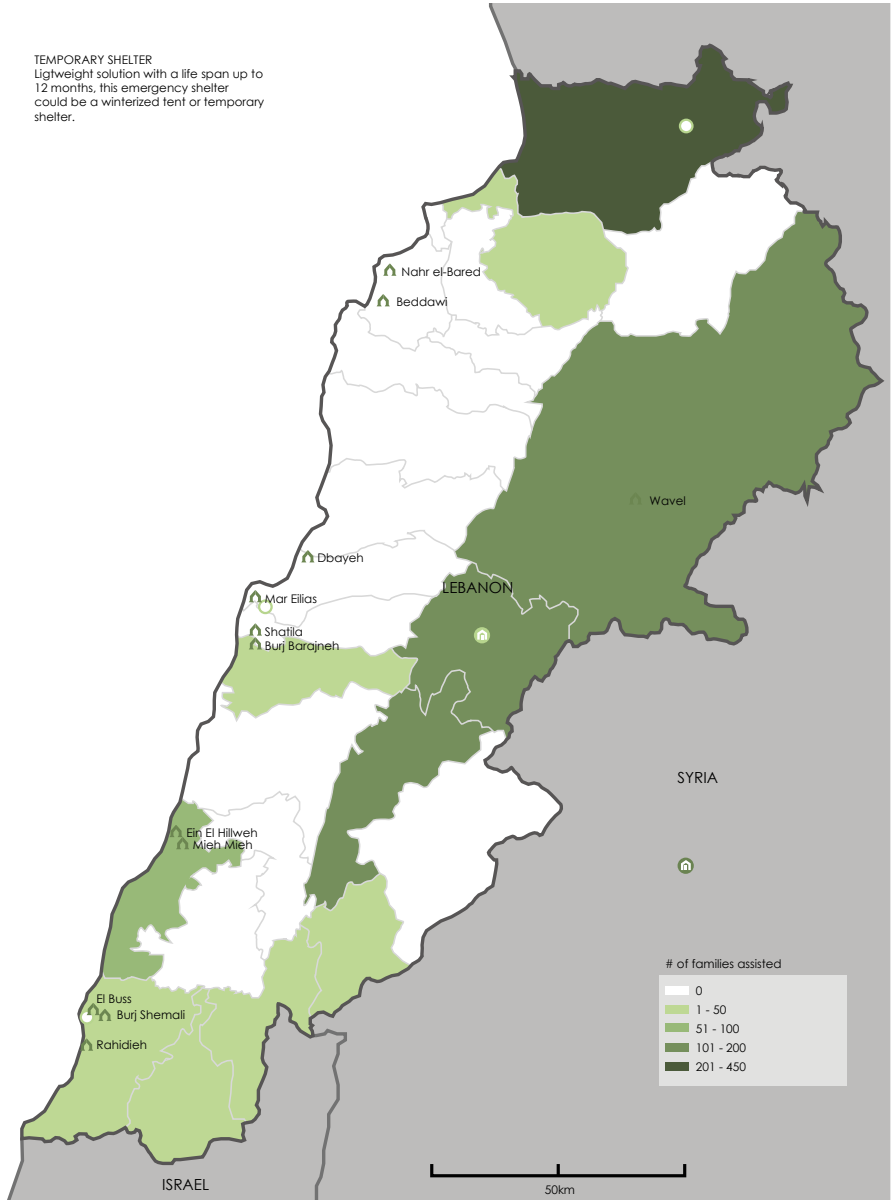
L7. Temporary shelter in Lebanon - OCHA (december 2014)

L8. Help for Lebanon refugees - AP (2013)

Lebanon's Future

The UNHCR's overarching strategy in Lebanon remains to protect, assist and facilitate solutions for refugees and other people of concern, through close partnership with the government, the judiciary, the UN Country Team, donors, NGOs and other partners, as well as the refugees themselves.
The UNHCR will focus its activities on the overall coordination of the Syrian refugee crisis, registration, protection monitoring and outreach activities, resettlement and humanitarian admission, provision of cash grants, shelters, and access to health and education.
Together with numerous partners, the office supports host communities and authorities to mitigate the direct impact of the presence of refugees to ensure a more favourable protection environment. The UNHCR will assist the Government in improving central and local organisations' ability to provide refugees with basic services, as well as to prevent statelessness in Lebanon. Finding solutions outside of Lebanon for the most vulnerable refugees will remain a priority.[6]

[6] Needs and strategies, Lebanon - UNCHR (2015)

m
Migration

Definition

Movement from one region to another and often
back again. [1] Due to worsening circumstances
in over 4.7 million Syrian refugees have fled their
country leaving everything behind. Travelling in harsh
conditions with almost no belongings, they face hunger
and danger hoping to find a safe place to stay.

[1] Dictionary, m. (2016).
migration Meaning in the
Cambridge English Dictionary

Migration map

Legend:
- Both European Union and Schengen Area members
- Only European Union members
- Only Schengen Area members
- ○ Recently constructed or planned border fences
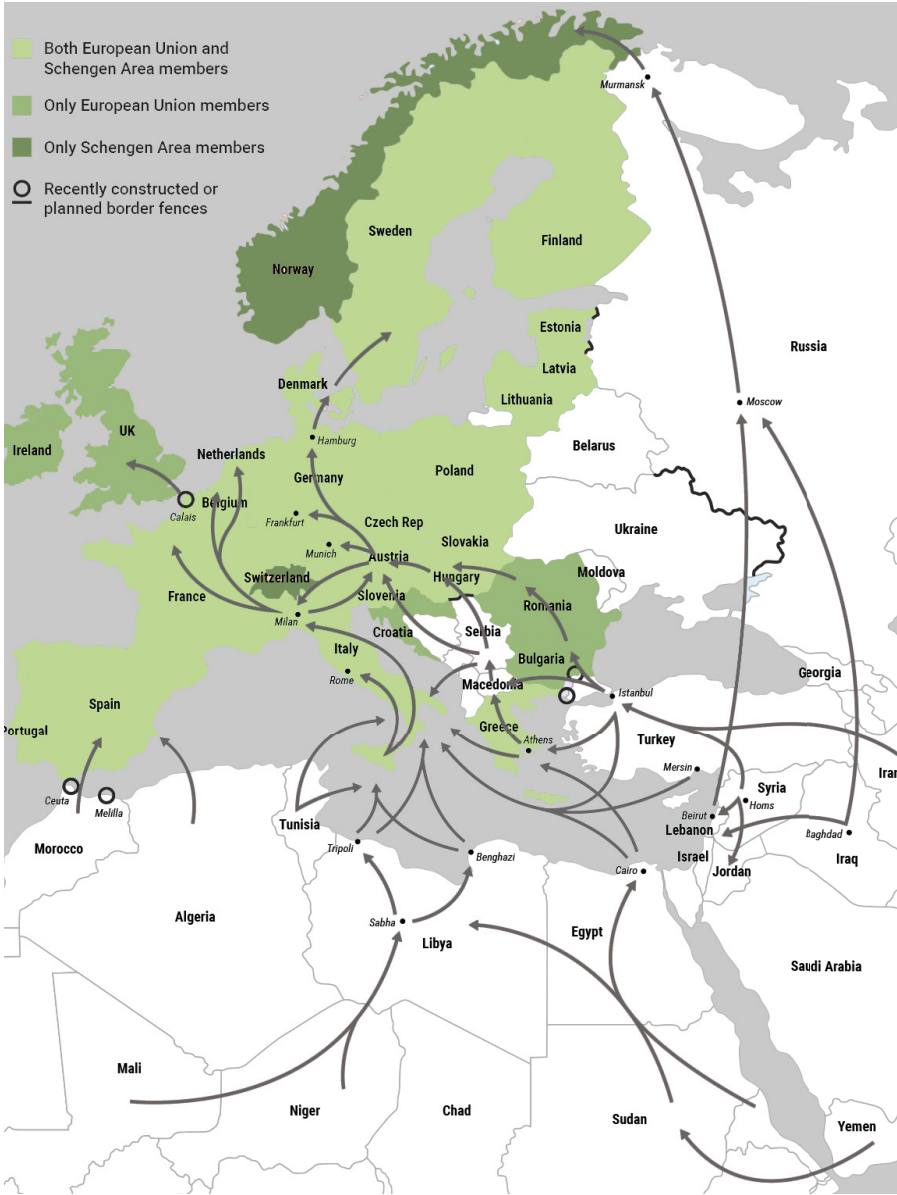
M2. Refugee travelroute - Geurts M. (2016)

Urban Refugees

For over four years Syria has been coping with the battle between the army and the insurgents. The crisis is worsening and claiming more victims every day. The vast amount of violence and poor humanitarian conditions force the Syrian civilians to leave their homes. Nowadays over 4 million Syrians have fled the country leaving everything behind.[2]

Most of them flee to neighbouring countries, but due to the vast amount of refugees, these countries fall short on resources like food, drinking water, sanitarian facilities and medical care.[3] Therefore some of them go across land and seas taking the road to Scandinavia and west Europe. The trek for refugees is arduous and unsafe. Smugglers routinely exploit them, promising safety for a high price, only to squeeze them in tiny boats and vehicles. Most have no option but to shed whatever meagre belongings they may have salvaged from their journeys. Those allowed to bring extra baggage aboard often toss it overboard, frantically dumping extra weight as the leaky boats take on water. Few arrive at their destinations with anything but the necessities of life. [4] Some travelling routes are more popular than others or might look strange at first. For instance the route to Murmansk (Russia). Refugees apply for a Russian visa and fly to Murmansk, then travel to a small town called Nikel up north. Here they buy a bicycle and cycle across the border to Norway because

Russia does not allow people to cross the border by foot and in Norway, they are not allowed to cross the border by car. The bicycle is the only legal option to enter the country. This "Nordic Route" is becoming more popular and already 1/5 of the 22.000 (October 2015) refugees that applied for asylum came by bike. [5]

Another crossing point is Calais (France), here the informal settlement has grown to over 7000 refugees (mainly men) and is having trouble keeping control and providing enough food and facilities. These forces refugees to look for other places to live, and the nearest is Dunkerque. This camp hosts over 2500 refugees and 1000 of them are children. Compared to Calais this camp host a lot of families. The reason these camps are so popular is that they are close to the tunnel that connects with England. The asylum procedure in England is quicker than in other countries like Germany and Holland. The conditions are terrible, but France is only building better facilities for refugees that register. This registration makes it no longer possible to apply for asylum in England. [6] Some countries are overflowing because the borders to neighbouring countries are closed like Greece. Refugees come in by boat on the islands and travel towards Athens. Because Macedonia only allows a small number of people to cross the border every day the capital of Greece is overflowing with refugees. [7]

[2] Anon, (2016). Stichting vluchtelingen

[3] Anon, (2016). Stichting vluchtelingen

[4] IRC (2015). What's in My Bag? :: What Refugees Bring When They Run for Their Lives

[5] Sharifi, M. (2015). Naar Noorwegen vlucht je op de fiets.

[6] National Geographic (2016). De vluchtelingen-kampen van Calais en Duinkerke

[7] Koning, M. (2016). Athene is één groot vluchtelingenkamp. [1] Kenya - UNCHR (2015)

Migration and Travel

M3. Refugee travel - Denton B. (2014) - http://blog.corbis.com

M4. Refugee travel - Denton B. (2014) - http://blog.corbis.com

M5. Refugee travel - Denton B. (2014) - http://blog.corbis.com
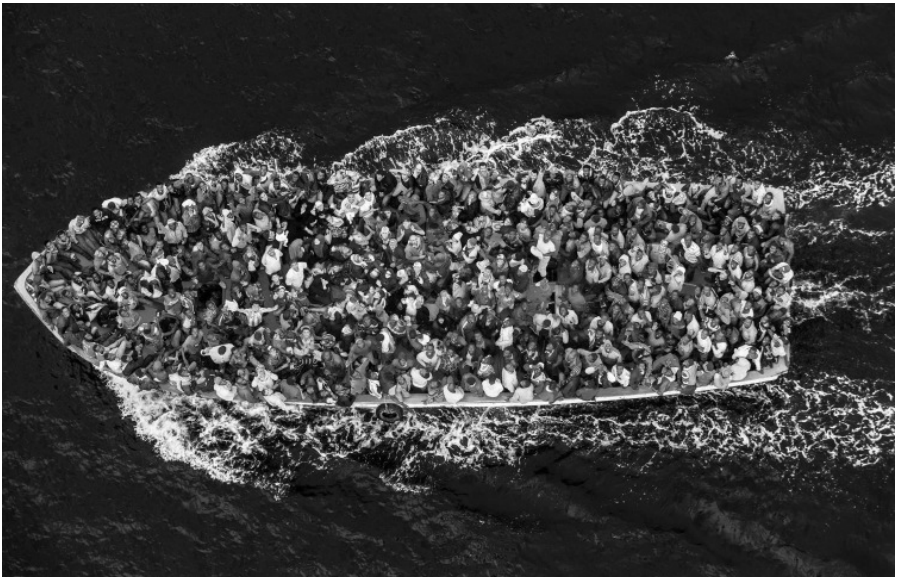
M6. Refugee travel - Sestini M. (2015) - http://time.com

Ownership and possessions

M7. Possessions refugee - Jump T. (2015) - http://qz.com

M8. Possessions refugee - Jump T. (2015) - http://qz.com

M9. Possessions refugee - Jump T. (2015) - http://qz.com

M10. Possessions refugee - Jump T. (2015) - http://qz.com

Demographics and Population

Registered Syrian refugees 4.718.230
17 feb 2016

	Age 0-4	Age 5-11	Age 12-17	Age 18-59	Age 60+
Male (49,3%)	9	11,1	6,5	21,4	1,3
Female (50,7%)	8,6	10,5	6,2	23,8	1,6

■ Male (49,3%)   ■ Female (50,7%)
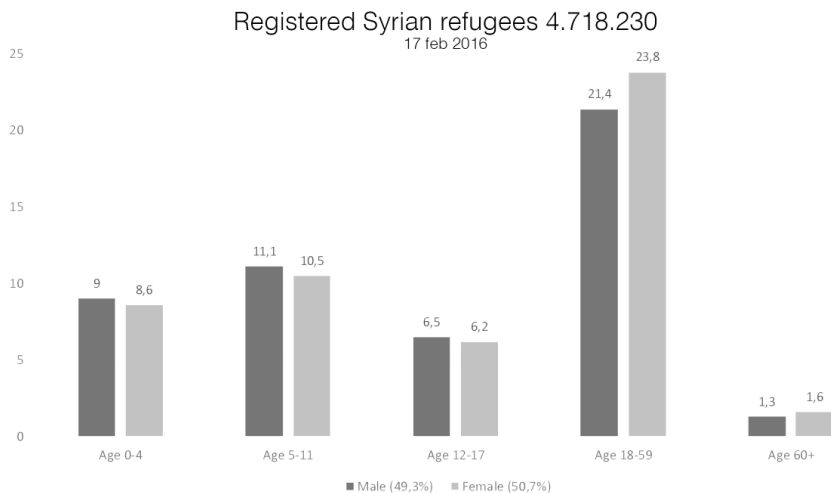
M11. Registered Syrian refugees - UNHCR (7 feb. 2016) - https://data.unhcr.org

Syrian refugees surpass four million

UNHCR
The UN Refugee Agency

TURKEY
1,805,255

SYRIA

LEBANON
1,172,753

IRAQ
249,726

NORTH AFRICA
24,055

JORDAN
629,128

EGYPT
132,375
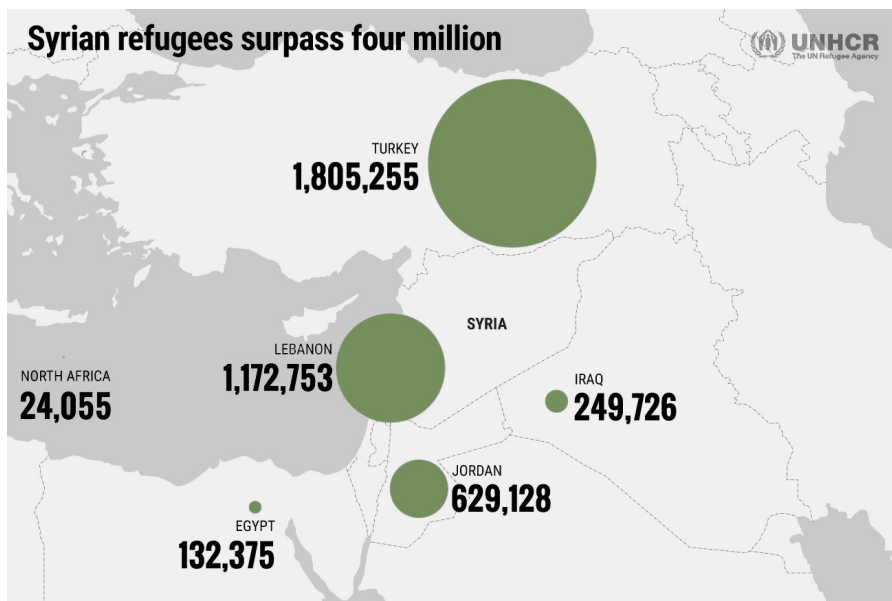
M12. Syrian refugees UNHCR (7 jul. 2015) - http://tracks.unhcr.org

Countries with the **largest displacement**
related to conflict and violence

Syria 6.5 million
Colombia 5.7 million
Nigeria 3.3 million
DRC 2.9 million
Sudan 2.4 million
Iraq 2.1 million
Somalia 1.1 million
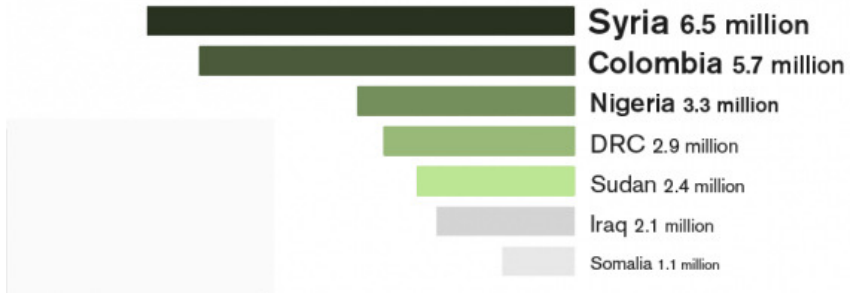
M13. Countries with the largest displacement - IDMC's (2014) - http://www.internal-displacement.org

8.2 million people newly displaced in 2013
The 12 countries with the highest new displacement

Syria 3.5 million
DRC 1 million
CAR 935,000
Nigeria 470,500
Sudan 470,000
South Sudan 383,000

Philippines 327,000
Ethiopia 178,000
Colombia 157,000
Pakistan 140,000
Afghanistan 124,000
Mali 123,000
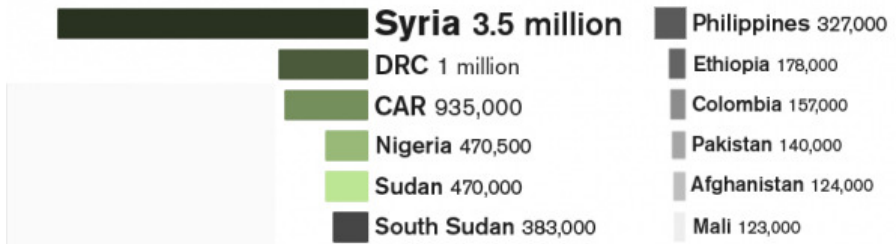
M14. Newly displaced people in 2013 - IDMC's (2014) - http://www.internal-displacement.org

The Global Overview 2014:
People internally displaced by conflict and violence

FY

Kosovo
At least
17,300

Serbia
97,300

Bosnia and
Herzegovina
103,400

Palestine
146,000

Libya
At least 59,400

Chad
Up to 90,000

Niger
Up to 11,000

**Nigeria
3,300,000**

Senegal
Up to 24,000

Mali
At least
218,000

Liberia
Up to 23,000

Togo
Up to
10,000

Côte d'Ivoire
At least 70,000

CAR
935,000

Republic of the Congo
Up to 7,800

**DRC
At least 2,963,700**

Angola
Up to 20,000

**Sudan
At least 2,426,700**

Abyei
At least 20,000

South Sudan
At least 383,000

Burundi
Up to 78,900

Zimba
36,0

Uganda
Up to 29,800

Mexico
160,000

Guatemala
242,000

Honduras
17,000

**Colombia
At least 5,700,000**

Peru
150,000

M15. People internally displaced by conflict and violence - IDMC's (2014) - http://www.internal-displacement.org

YR Macedonia
At least 330

Cyprus
Up to
212,400

Turkey
At least
953,700

Georgia
Up to
206,600

Armenia
Up to 8,400

Azerbaijan
Up to
543,400

Russian Federation
At least 34,900

Uzbekistan
At least 3,400

Turkmenistan
At least 4,000

Kyrgyzstan
0

Afghanistan
At least 631,000

Pakistan
At least 746,700

Nepal
Up to 50,000

India
At least 526,000

Bangladesh
Up to 280,000

Laos
Up to 4,500

Myanmar
640,900

Thailand
At least 35,000

The Philippines
At least 115,800

Sri Lanka
Up to 90,000

Timor-Leste
At least 900

Indonesia
At least 90,000

Iraq
Up to
2,100,000

Syria
At least
6,500,000

Lebanon
At least 20,000

Yemen
307,000

Eritrea
Up to 10,000

Somalia
1,100,000

Ethiopia
316,000

Kenya
412,000

bwe
00

NRC NORWEGIAN
REFUGEE COUNCIL

iDMC internal
displacement
monitoring
centre

The boundaries and names shown and the designations
do no imply official endorsement or acceptance by IDMC.

n

NGOs

N1. UNHCR - http://www.shrc.org/en/wp-content/uploads/2014/09/Syria-Education5.jpg

Definition

An organisation that tries to achieve social or political aims but is not controlled by a government. [1] This chapter is an overview of the NGOs active in the area surrounding Syria.

[1] Ngo.org, (2016) - Definition of NGOs

Leading NGOs
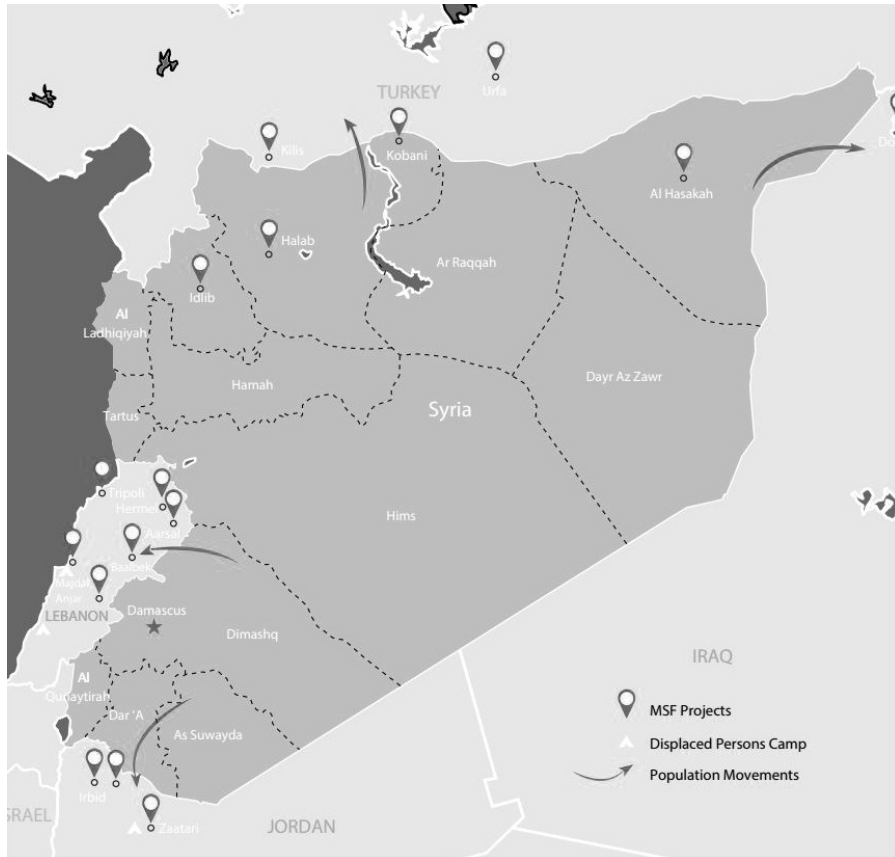
N2. MSF oktober 2015 - Syria crisis fact sheet

MSF

Doctors without borders
http://www.msf.org/

The MSF is an international, independent, medical humanitarian organisation that delivers emergency aid to people affected by armed conflict, epidemics, natural disasters and exclusion from healthcare. The MSF offers assistance to people based on need, irrespective of race, religion, gender or political affiliation. [2]

78 rue de Lausanne
Case Postale 116
1211 Geneva 21
Switzerland

[2] Médecins Sans Frontières (MSF) International, (2016). About MSF.
[3] Ird.org, (2016). International Relief & Development.

N3. Logo MSF - http://cdn.msf.ie

IRD

International Relief and Development.
http://www.ird.org/

The IRD is a nonprofit, nongovernmental organisation responsible for implementing relief and development programs worldwide. IRD's mission is to empower the world's most vulnerable communities to achieve self-sufficiency through innovative solutions, applied knowledge and targeted expertise. [3]

1621 North Kent Street
Fourth Floor
Arlington, VA 22209, USA

N4. Logo IRD - https://www.whistleblower.org

UNHCR
United Nations High Commissioner for
Refugees

http://www.unhcr.nl/

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.[4]

UNHCR Nederland
Postbus 18815
2502 EV Den Haag
+31 (0) 70 311 58 01

N5. Logo UNHCR - http://www.ungeorgia.ge

WHO
World Health Organisation

http://www.who.int/en/

Their primary role is to direct and coordinate
international health within the United Nations'
system. WHO's main areas of work are
health systems, promoting health through
the life-course, non-communicable diseases,
communicable diseases, corporate services,
preparedness, surveillance and response.[4]

World Health Organization
Avenue Appia 20
1211 Geneva 27
Switzerland

N6. Logo WHO - https://venomstodrugs.files.
wordpress.com

[3] Refugees, U. (2016). UNHCR - About Us.
[4] World Health Organization, (2016). WHO.

IMC

International Medical Corps

https://internationalmedicalcorps.org/

The IMC assists those in urgent need anywhere, anytime, no matter the conditions, It also provides lifesaving health care and health care-related emergency services, often within hours.[5]

International Medical Corps
12400 Wilshire Blvd., Suite 1500
Los Angeles, CA 90025
Phone: 310.826.7800

WFP

World Food Programme

https://nl.wfp.org/

In emergencies, the WFP gets food to where it is needed, saving the lives of victims of war, of civil conflict and of natural disasters. After the cause of an emergency has passed, they use food to help communities rebuild their lives.[6]

World food programme
Via Cesare Giulio Viola 68
Parco dei Medici
00148 - Rome - Italy
Tel: +39-06-65131

[5] Internationalmedicalcorps.org, (2016). Who We Are.
[6] Wfp.org, (2016). About WFP.

Other NGO's

Camp Management
IRC
KRG-DMC
MODM
UNHCR

Cash Assistance
AVSI
CARE
DRC
IFRC
IRC
MercyCorps
Medair
OXFAM
PU-AMI
UNHCR

Child Protection
Friends of Wal-
dorf Education
ACF
AEC
Amel
Beyond
DOLSA
DRC
FCA
FHS-UOB
Harikar
IDRAAC Lebanon
IFH/NHF
IMC
INTERSOS
IOM
IRC
IRD
KRG-DMC
Makhzoumi
Foundation

MAP
MercyCorps
MSF
NHF
PSTIC
SAVE International
SC
SAWA Lebanon
TdH -It
TdH - Lausanne
UNFPA
UNHCR
UNICEF
UNWOMEN
UPP
WCH
WVI

Community Services
ACF
Amel
CLMC
CRS
DRC
DRC Iraq
DVAW
Harikar
INTERSOS Iraq
INTERSOS
IOCC
IOM
IRC
IRD
IRW
ISHO
KRG-DMC
LEDA
MercyCorps
MF
MoSA
NHF
NRC
PSTIC
Qandil
REACH

RESTART
RIRP
SAVE International
SC
SAWA Lebanon
SHEILD
Tadamon
TdH - Lausanne
UNFPA
UNHCR
UNICEF
UPP

Coordination
IOM
IRC
IRW
KRG-DMC
MODM
Qandil
UNFPA
UNHCR
UNICEF
UPP
WFP
WHO

Core Relief Items
ACF
AJEM Lebanon
AVSI

Barzani Foundation
CARE
CISP
CLMC
CONCERN
Dar El Fatwa
DRC
GVC
HI
ICMC
IOCC
IOM
IR
IRC
IRD
IRW
JEN
JHAS
KRG-DMC
LRC
LWF
Makassed
Makhzoumi
Foundation
MercyCorps
Medair
MODM
NRC
OPM
OXFAM
PWJ
Qandil
Red Cross FR
RI
SAVE International
SC
ShelterBox
SHEILD
SIF
Solidar Suisse
Solidarites
TdH - Lausanne
UNHCR
UNICEF
UNRWA
UPP
URDA Lebanon
Welfare Association
WVI

Education

Alpha
Amel
AMURT
AVSI
Beyond
British Council
CARITAS
Children with-
out borders
CLMC
CRS
Dar Beru
FCA
FHS-UOB
Harikar
HOOPS
HWA
IECD
IFH/NHF
IOCC
IOM
IQRAA
IRC
IRD
JEN
JICA
JRS
KRG-DMC / DoE
LOST
Madrasati
MercyCorps
MoE Jordan
MSL
NHF
NRC
PWJ
Qandil
Questscope
REACH
Relief & Rec-
onciliation
RI
SC
SAWA Lebanon
UNESCO
UNHCR

UNICEF
UNRWA
URDA Lebanon
WCH
WFP
WVI

Environment

IRD
REACH
RIRP
UNHCR
UNICEF

Food Security

ACF
Barzani Foundation
CARE
CLMC
DDM
DRC
FAO
GVC
Harikar
HI
INTERSOS
IOCC

IR
IRC
IRW
KRG - DMC
LOST
LRC
LWF
Marassed
Mercy USA
MODM
PU - AMI
PWJ
QRCS
RCS
Red Cross FR
SC
SAWA Lebanon
SHEILD
Solidarites
UNHCR
UNRWA
URDA Lebanon
Welfare Association
WFP
WVI

Gender-Based

Violence
ABAAD Lebanon
AEC
Beyond
CLMC
DRC
DVAW
Harikar
Heartland Alliance
IFH / NHF
IMC
INTERSOS
IOM
IRAP

IRC
IRD
JRF
KAFA Lebanon
KRG-DMC
Makhzoumi
Foundation
MAP
MercyCorps
MSF
NHF
NRC
Qandil
SC
SHEILD
TdH - Lausanne
UNDP
UNFPA
UNHCR
UNICEF
UNRWA
UPP

Health

AJEM Lebanon
Amel
AUB
Beyond
CARITAS
CLMC
DCA - Saida
Lebanon
FPSC
Harikar
HI
Humedica
ICRC
IFH/NHF
IMC
IOCC

Other NGO's

IOM
IRC
IRD
IRW
JHAS
JICA
KRG-DMC /DoH
Makassed
Makhzoumi
Foundation
MAP
MdM
Medair
MODM
MoH jordan
MSF
NHF
NRC
PU-AMI
PWJ
Qandil
RESTART
SC
Seraphim Global
Lebanon
TdH-It
UIMS
UNFPA
UNHCR
UNICEF
UNRWA
UPP
URDA Lebanon
WHO

HIV / AIDS
AJEM Lebanon
CRS

IMC
MF
Refuge Egypt
UNFPA
UNHCR
WHO

Information
Management
DRC Iraq
KRG - DMC
Qandil
REACH - Initiative
SC
UNHCR
UNICEF
UPP
WFP
WHO

Livelihood
ACF
ActionAid
ADRA
Al Majmoua
Amel
CARITAS
CLMC
CRS
DRC
DRC Iraq
FHS-UOB
Harikar
Inter - Agence
IOM
IRC
IRD
IRW
KRG - DMC
LOST

Makhzoumi
Foundation
MarcyCorps
NHF
PWJ
Qandil
REACH
SC
SFCG
TdH - Lausanne
UNDP
UNESCO
UNHABITAT
UNHCR
URDA Lebanon

Logistics
IOM
IRW
Qandil
UNHCR
UPP
WFP

Mental Health
& Psychoso-
cial Support
CVT
HI
IMC
IRC
JHAS
JRS
NHF
PSTIC
UNHCR
UNICEF

Nutrition
ACF
Barzani Foundation
Beyond
IMC
IOCC
KRG - DMC / DoH
Medair
MSF
RI
UNDP
UNHCR
UNICEF
Welfare Association
WFP
WHO

Protection
AJEM Lebanon
ARDD-LA
CARE
CLMC
DRC
DRC Iraq
DVAW
FHS-UOB
FPSC
Harikar
HI
HWA
ICRC
IFH/NHF
IMC
INTERSOS Iraq
INTERSOS
IOM
IRC
IRD
IRW

JHAS
JRF
KRG - DMC
LOST
LWF
MAG
MercyCorps
NRC
OXFAM
PU-AMI
Qandil
REACH-Initiative
SAVE International
SC
SHEILD
TdH - It
UNFPA
UNHCR
UNICEF
UNRWA
UNWOMEN
UPP
WRF

Reproductive Health
IFH/NHF
IRC
Refugee Egypt
TdH - It
UNFPA
UNHCR
UNICEF
WHO

Return
UNHCR

Shelter
ADRA
CHF
CISP
CLMC
CONCERN
DRC Iraq
DRC
GVC
INTERSOS
IOM
IR
IRW
ISHO
JHAS
KGG - DMC
KURDS
LWF
MercyCorps
Medair
MODM
NRC

Registration
AJEM Lebanon
Amel
Harikar
IOM
IRD
IRW
Qandil
SC
SAWA Lebanon
SHEILD
UNHCR

OXFAM
PCPM
PU-AMI
PWJ
Qandil
QRCS
RIRP
SC
ShelterBox
SDC
SHEILD
SIF
Solidar Suisse
Solidarites
UNDP
UNHABITAT
UNHCR
UNOPS
UNRWA
URDA Lebanon

Telecom
UNHCR
Transportation
IOM
IRW
ISHO
MODM
Qandil
UNHCR

Water & Sanitation
ACF
Barzani Foundation
CARE
CHF

CISP
CONCERN
DRC Iraq
FHS-uob
FRC
GVC
Harikar
INTERSOS
IOM
IRD
IRW
JEN
KRG-DMC
KURDS
LRC
Makhzoumi
Foundation
MercyCorps
Mercy USA
MODM
MSF
NRC
OXFAM
PU-AMI
PWJ
Qandil
Red Cross fr
Red Cross Leb
Lebanon
RI
RIRP
SAVE International
SC
Solidarites
THW
UNDP
UNHABITAT
UNHCR
UNICEF
UNRWA
UPP
WVI

O

Organization

O1. Azraq refugee camp in 2015, Jordan

Definition

A non-governmental organisation (NGO) is any non-profit, voluntary citizens' group which is organised on a local, national or international level. Task-oriented and driven by people with a common interest, NGOs perform a variety of services and humanitarian functions, such as bringing citizen concerns to Governments, advocating and monitoring policies and encouraging political participation through the provision of information. Some are organised around specific issues, such as human rights, environment or health. They provide analysis and expertise, serve as early warning mechanisms and help monitor and implement international agreements. Their relationship with offices and agencies of the United Nations system differs depending on their goals, their venue and the mandate of a particular institution [1].

The organisation and site planning in refugee situations takes place as early as possible and is usually the responsibility of UNHCR (or an agency delegated by UNHCR).

[1] www.ngo.org

Kakuma Refugee Camp
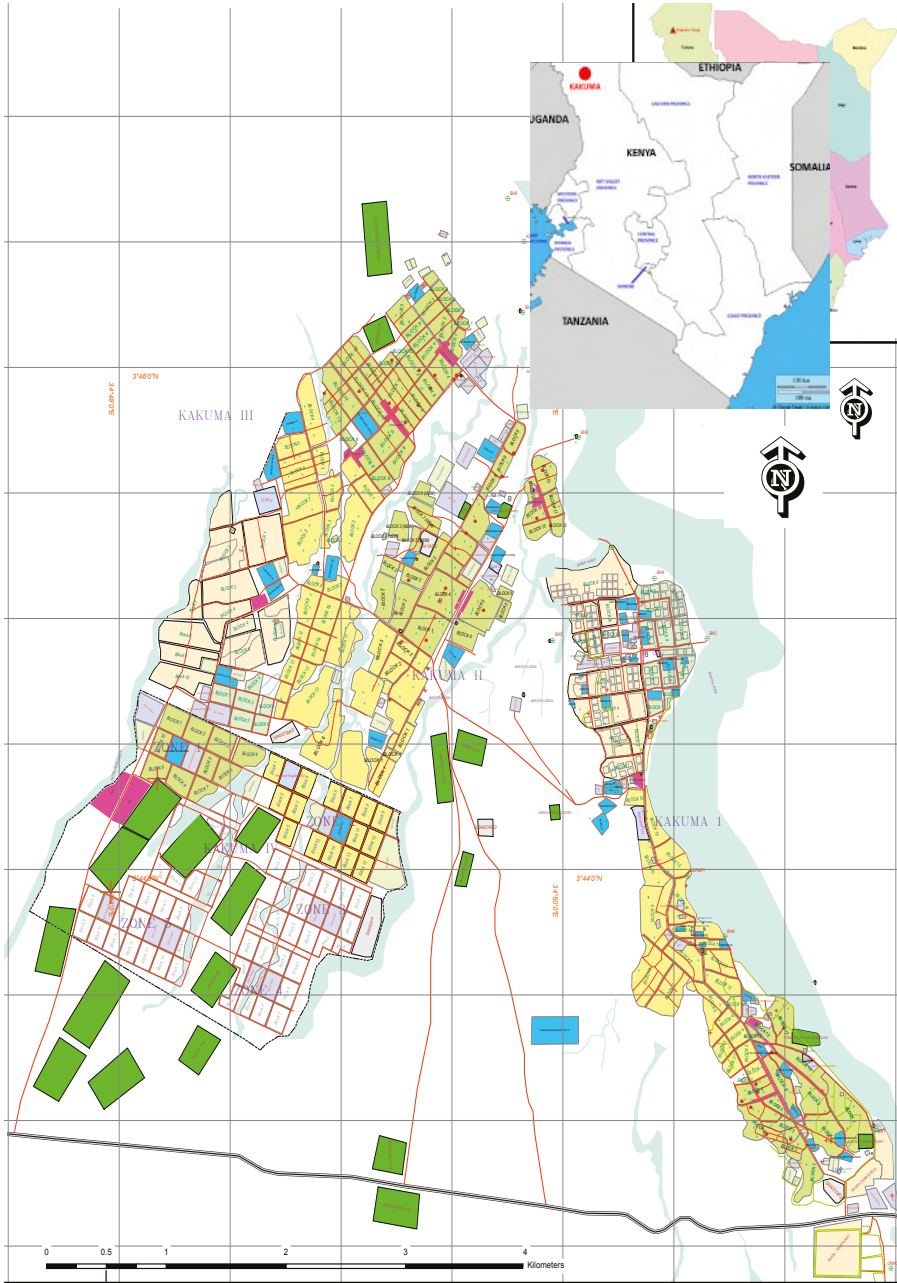
O2. Layout map and graphic organisation of Kakuma refugee camp in 2016, Kenya

Legend

- ◆ BEACONS
- ⊕ BOREHOLES
- ▲ BOOSTERS
- ⁘ TAPSTANDS
- ▬▬ CAMP BOUNDARIES
- ▬▬ BOUNDARY FENCES
- ▬▬ DEMO ROAD
- ✚ Church
- ⬤ Mosque/Madrassa

- ▬▬ MAJOR CAMP ROADS
- ▬▬ MINOR CAMP ROADS
- ▬▬ WATER PIPELINE
- ▢ ZONE 1
- ▢ ZONE 2
- ▢ ZONE 3
- ▢ ZONE 4
- ▢ LAGGA
- ▢ COMMUNITIES
- ▢ AGENCIES COMPOUNDS

- ▢ EDUCATION FACILITIES
- ▢ ELEVATED TANKS
- ▢ GRAVEYARDS
- ▢ GREENBELTS
- ▢ HEALTH FACILITIES
- ▢ MARKETS
- ▢ OTHER PUBLIC FACILITIES
- ▢ FLOODING AREA

Abbreviations

AEC	ADULT EDUCATION CENTRE
BH	BOREHOLE
BBC	BASKET BALL COURT
ETHIOPIAN S.C.	ETHIOPIAN STUDENTS COMPOUND
FDC	FOOD DISTRIBUTION CENTRE
IRC-EAC	IRC ADULT EDUCATION CENTRE
JRS C.C.	JRS COUNSELLING CENTRE
KVN	KAKUMA VEGETABLE NURSERY
LWF -- WDC -- LWF	WOMEN DEVELOPMENT CENTRE
MPC	MULTI PURPOSE CENTRE
N.S	NURSERY SCHOOL
PS	PRIMARY SCHOOL
RC-O	RED CROSS FIELD OFFICES
SH	SOCIAL HALL
SS	SECONDARY SCHOOL
TRC	TEACHERS RESOURCE CENTRE
YRC	YOUTH RESOURCE CENTRE

O3. Layout map and graphic organisation of Za'atari refugee camp in 2016, Jordan

Legend

▨ Health	
▨ Registration	
▨ Security	
▨ Distribution Point	
▨ Warehouse	
▨ NGO Office	
▨ District Compound	
▨ Community Office	
▨ Community Center	
▨ Common Space	
▨ School	
▨ Kindergarten	
▨ Youth Center	
▨ Child Friendly Space	
▨ Playground	
▨ Recreation	
▨ Mosque	
▨ Vacant	
▨ Under Construction	
▭ District Boundary	
▪ Kitchen	
▪ WASH Centre - Active	
⊘ WASH Centre - Damaged	
▪ Water Point	
▪ Mosque	
⁝ Assembly Point	

Basirma Refugee Camp   Layout map and graphic organisation

O4. Layout map and graphic organisation of Basirma refugee camp in 2015, Iraq

Legend

- Camp Delineation
- Fence
- Block
- Temporary Tented Area
- Temporary Collective Shelter
- Health
- Office
- Registration
- Distribution
- Education
- Child Friendly Space
- Community Area
- Services
- Storage
- Under Construction
- Entrance
- NGO Office
- WASH Centre
- Bakery
- Fuel Tank
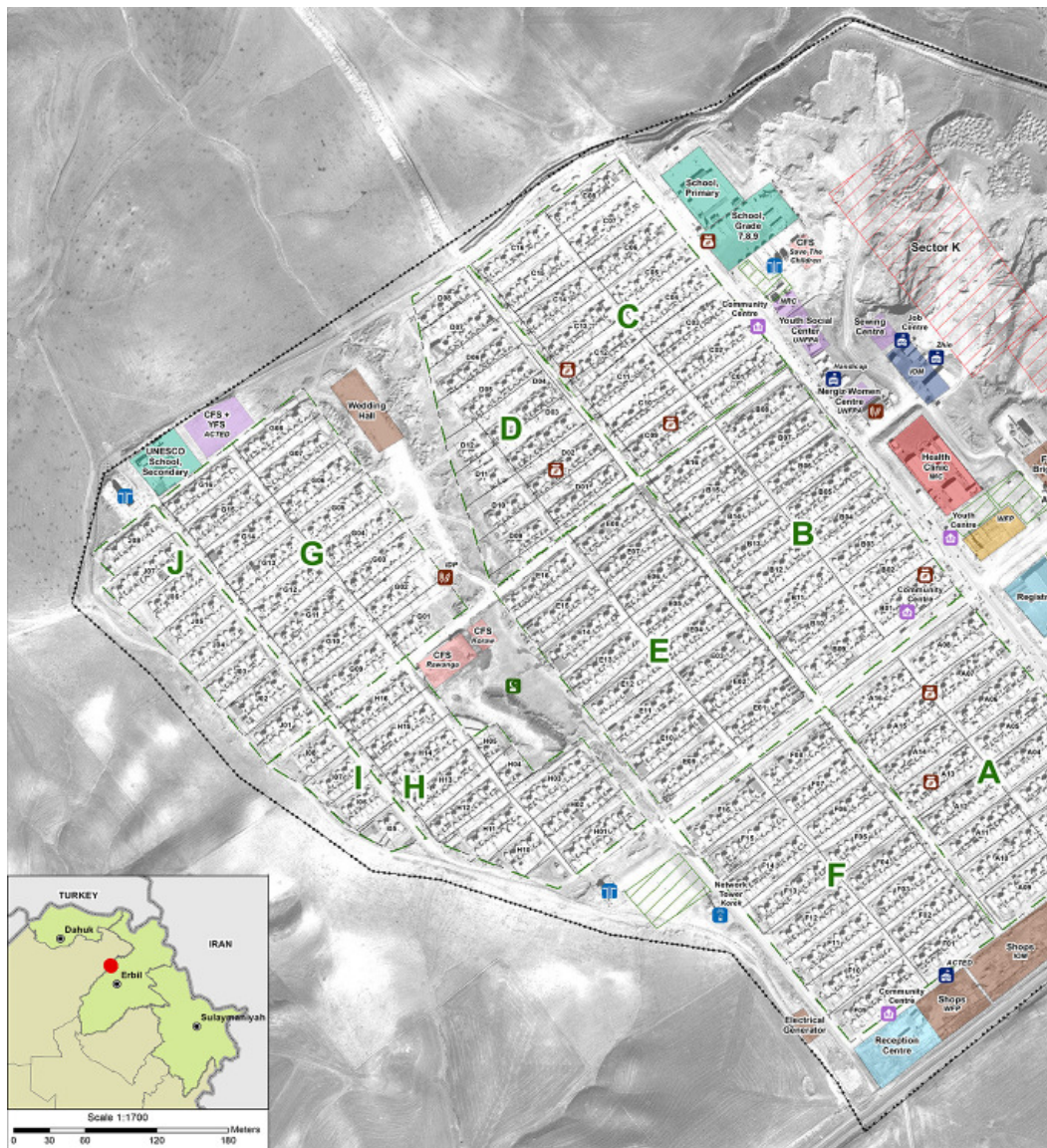
O5. Layout map and graphic organisation of Darashakran refugee camp in 2015, Iraq

Legend

········	Fence
	Sector
▨	Temporary Tented Area
▨	Under Construction
▉	Health
▉	Office
▉	Registration
▉	Distribution
▉	School
▉	Child Friendly Space
▉	Community Area
▉	Service
▉	Storage
▲	Entrance
	NGO Office
	Mosque
	Community Area
	Bakery
	Shop
	Network Tower
	Fuel Depot
	Borehole

O6. Layout map and graphic organisation of Kawergosk refugee camp in 2015, Iraq
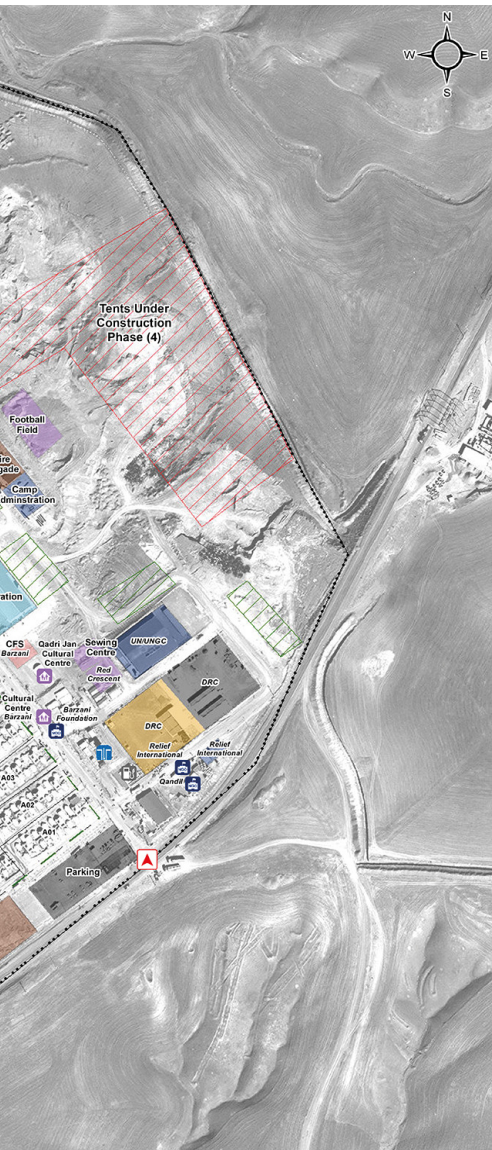
Legend

- ▦ ▦ Camp Delineation
- •••••• Fence
- ▨ Temporary Tented Area

- █ Health
- █ Office
- █ Registration
- █ Distribution
- █ Mosque
- █ Education
- █ Child Friendly Space
- █ Community Area
- █ Services
- █ Storage
- ▨ Under Constuction

- ▶ Entrance
- NGO Office
- Office
- Mosque
- Community Service
- Community Area
- Bakery
- Fuel Depot
- Borehole

Kawergosk Refugee Camp

Layout map and graphic organisation
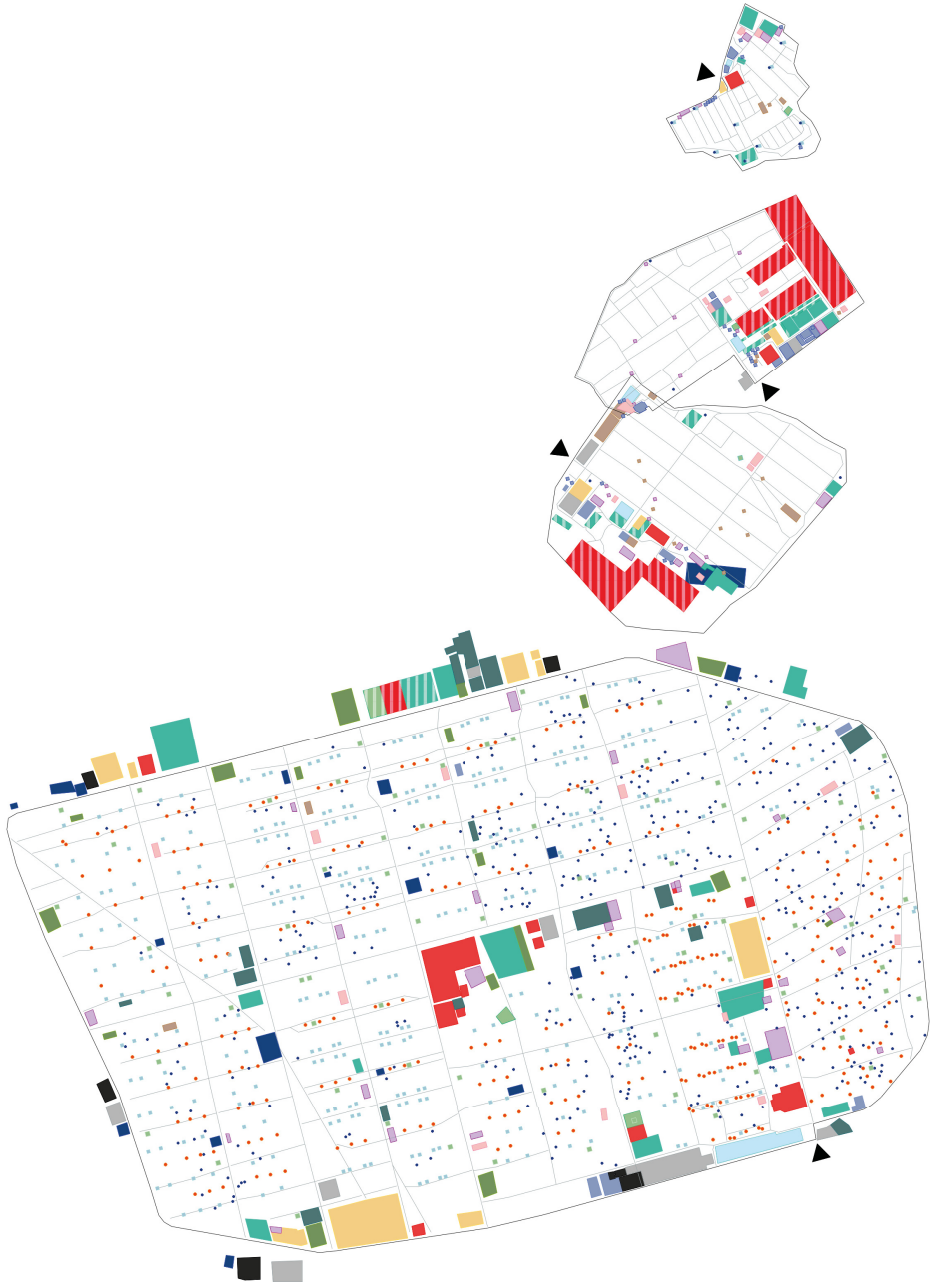
O7. Comparision of 4 refugee camps, UNHCR : data.unhcr.org

Legend

- ▬ Health
- ▮ • Water facilities
- • Washing points
- ▬ Child friendly space
- ▬ Registration
- ▬ Security
- ▬ Distribution points
- ▬ Warehouse
- ▮ ▫ NGO office
- ▬ Education
- ▬ Playground/Recreation
- ▬ ▫ Mosque
- ▬ ▫ Community
- ▬ Youth center
- ▬ ▫ Services
- ▬ Parking
- ▮ Under construction
- ▮ Temporary
- • Kitchen
- ▼ Entrance

BASIRMA REFUGEE CAMP

Opened on:	August 8, 2013
Surface area:	170.200 m2
Amount of refugees:	3 566 (Jan. 2016)

DARASHAKRAN REFUGEE CAMP

Opened on:	October 1, 2013
Surface area:	622.400 m2
Amount of refugees:	10 960 (Feb. 2016)

KAWERGOSK REFUGEE CAMP

Opened on:	August 15, 2013
Surface area:	436.700 m2
Amount of refugees:	10 279 (Feb. 2016)

ZA'ATARI REFUGEE CAMP

Opened on:	July 28, 2012
Surface area:	5.050.000 m2
Amount of refugees:	79 558 (Feb. 2016)

p
Prototype

Definition

A prototype is an early sample, model, or release of a product built and intended as a test for a concept or process or it is intended to act as a thing to be replicated or learned from [1]. The selected prototypes are in an advanced stage of development and will be implemented.

[1] Blackwell, A. H.; Manar, E., eds. (2015)

Better Shelter

By Tim de Haas

The Refugee Housing Unit RHU is an innovative shelter resulting from a partnership between UNHCR, the IKEA Foundation and the Refugee Housing Unit by Tim de Haas. The shelter resembles a house, featuring vertical walls, 4 windows, a high ceiling and a door. [2]
The 17,5m2 floor area holds five people and is tested and evaluated. It includes a PV system, has a three-year lifespan and a high fire safety classification. It is easy to assemble by hand, and it is modular and adaptable.
In March 2015 the RHU renamed it to Better Shelter.

Assembly time: 4-8 hours
Price: £5.000,-

[2] (UNHCR), The Refugee Housing Unit (RHU)

ROOF AND WALLS
Made of lightweight semi-hard plastic designed to last at least three years – compared to six months for conventional refugee tent

SHADE-NET
Metallic fabric deflects heat during day and retains it at night

SOLAR PANEL
Powers built-in lamp and USB port

Lamp

Curtains

Windows

Plastic sheet flooring

Roof and wall panels snap onto metal frame and secured by plastic fasteners

METAL FRAME
Held together by connectors & wires

P2. Features and materials

P3. Picture from inside

P4. Better Shelter in Kobe refugee camp in 2013, Ethiopia

P5. Better Shelter in Karatepe transit camp in 2015, Greece

Sandbag Shelter   By Nader Khalili

It was developed by Nader Khalili in 1982. Long and short sandbag rolls are filled with earth on-site and arranged in layers and in long coils. Between layers, strands of barbed wire act as both mortar and seismic reinforcement. The building is tailored and constructed directly from the available earth on-site. The shelters focus on the economic empowerment of people by participation in the creation of their own homes and communities.[3]

Assembly time: depending on design.
Price: depending on design, €250 (250 yards bag rolls) to €1.860 (1750 yards bag rolls).

[3] AKDN - Sandbag Shelter

P6. Home built with earth-filled sandbags

P7. Building process

P8. Pond (L) and seating area (R) created with sandbags

**P9. Sandbog shelters with plaster finishing in Baninajar refugee camp, Iran.
Constructed in 1995 and demolished in 2012**

P10. Interior of a model house in California, USA

Wearable Dwelling

Students from London's Royal College of Art have developed a prototype coat for refugees that transforms into a tent or sleeping bag. The coat is made of Tyvek, a synthetic material and is insulated with Mylar, a polyester material commonly used by marathon runners to keep them warm. The coat has a large hood, pockets and zips that quickly transforms into a tent or sleeping bag. [4]

Assembly time: 2 minutes
Price: € unknown

[4] Dezeen - RCA students design wearable dwelling for Syrian refugees

P11. Sleeping bag

P12. Coat mode

P13. Tent mode
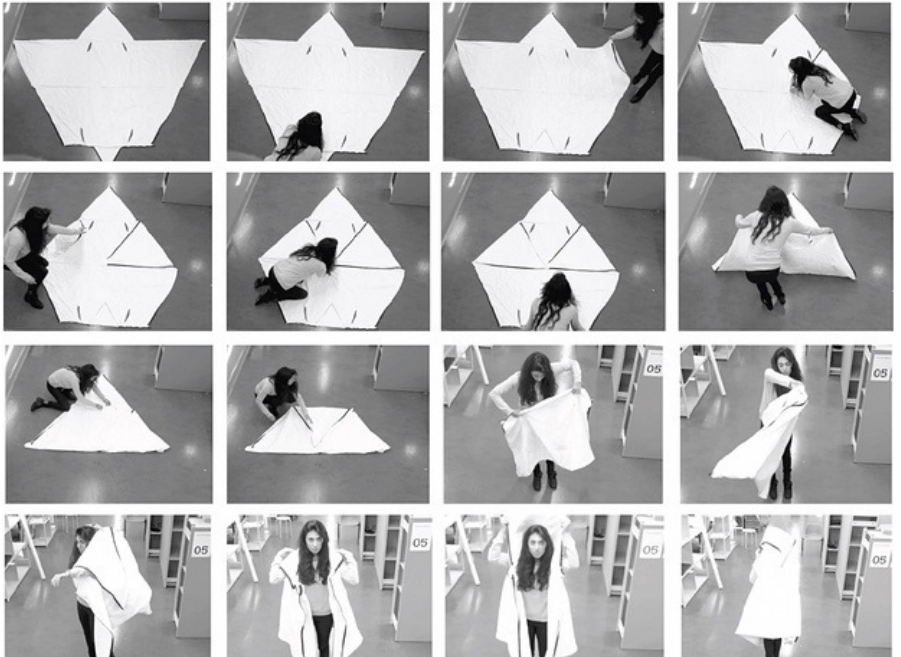
P14. A student demonstrating how the wearable dwelling morphs into a coat

Maggie Shelter

The Maggie shelter is a temporary structure that is as sturdy, durable and insulated as a building. It is developed by the Belgium-based office Maggie Program. The building comprises of a double jacket made of plastic walls, which can be filled with locally available materials such as sand, straw, used plastics, and a variety of organic materials. The basic module measures 20 meters by 6 meters and houses up to 60 people; refugees can upgrade and expand the buildings as needed and adapt them for different uses, such as schools, health posts, medical wards and community centres.[5]

Assembly time   15-24 hours
Price: €14.500,-

P15. View from outside
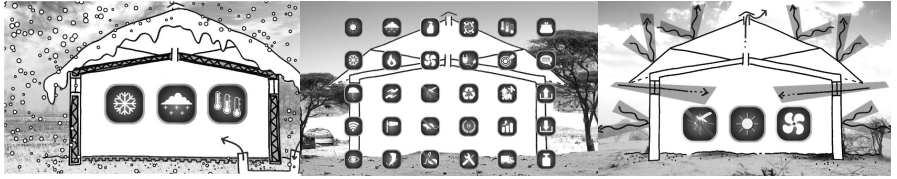
[5] inhabitat - Affordable modular Maggie Shelter offers refugees a healthier future

P16. View from inside

P17. Protection against weather influences and reduces the need for extra heating and cooling
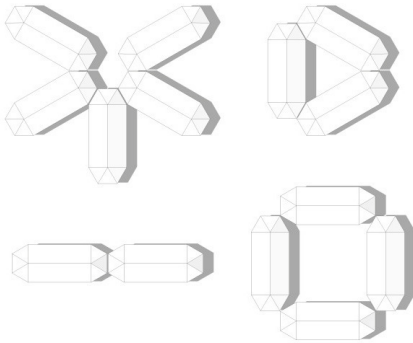
P18. Different possible configurations

P19. A team of people building the Maggie Shelter. The inner core is being filled with a mixture of sand and straw

Exo Shelter

The EXO shelter is developed by Reaction Housing in the USA. The 7,4 m2 housing unit that holds up to 4 people is entirely prefabricated. It consists of two components, namely, the shell and the base. It can be easily assembled by four people lifting the lightweight shell and placing it on the base.

The shelter is stackable to enable 16 units to be loaded in the back of a semi truck. They are customizable and "smart" with features like HVAC systems and digital door locks. They can be connected to a source of electricity, including solar panels or car batteries, if available.[6]

Assembly time: 5 minutes
Price: €4.600,-

[6] Fortune - reaction-housing

P21. 3d impression of different interiors

P20. The EXO shelter

P22. No heavy lifting thanks to the lightweight shell (170kg) and base (147kg) for easy placement and movement

Locking Doors
NFC/RFID Digital ID,
manual keys

Lighting
Interior LEDs

Power
2 GFCI Outlets

Ventilation
2 Recessed
ceiling fans

Dynamic Addressing
Exterior LED Display

P23. Standard features

P24. Easily stacked like coffee cups for easy loading and unloading the truck

q

Quantity

Q1. Syrian refugee camp - The New York Times News (2015)

[1] UNHCR

Definition

Generally speaking, there are approximately 60 million displaced people in the world. Unfortunately, the number of refugees is still increasing considerably per year. The main reasons that contribute to this circumstance are considered to be military conflicts and natural disasters. [1]

Refugee Definition by UNHCR

Q2. A portrait of a refugee - UNHCR (2014)

7 Categories of Refugees refined by UNHCR

UNHCR identifies seven population categories, collectively referred to as 'persons of concern': refugees, asylum seekers, internally displaced persons (IDPs), refugees who have returned home (returnees), IDPs who have returned home, people under UNHCR's statelessness mandate, and others who do not fall under these categories ,but to whom the agency extends protection. Since 2007, two additional sub-categories have been added: individuals in refugee-like situations (included under refugees) and those in IDP-like situations (included under IDPs).

1. Refugees include individuals recognised under the 1951 Convention relating to the Status of Refugees and its 1967 Protocol. Also, individuals under the 1969 Organization of African Unity (OAU) Convention Governing are recognised. The Specific Aspects of Refugee Problems in Africa, those recognised following the UNHCR Statute, individuals granted complementary forms of protection, and those enjoying temporary protection. The refugee category also includes people in a refugee-like situation.[3]

2. Asylum-seekers (with 'pending cases') are individuals who have sought international protection and whose claims for refugee status have not yet been determined. Those covered in this report refer to claimants whose individual applications were pending by the end of 2014, irrespective of when those claims may have been lodged.[2][4]

[2] UNHCR Statistical Yearbook (2012)
[3] UNHCR Statistical Yearbook (2008)
[4] ESI -The 2015 refugee crisis through statistics

3. Internally displaced persons are people or groups who have been forced to leave their home or place of habitual residence. Moving to avoid the effects of armed conflict, situations of generalised violence, violations of human rights, or natural and human-made disasters, and who have not crossed an international border. [5]

[5] siteresources worldbank - Forced displacement and development.

UNHCR is involved in situations of internal displacement in some countries. The populace reported in its statistics is limited to conflict- generated IDPs or persons in an IDP-like situation to whom the agency extends protection or assistance. Therefore, UNHCR's IDP statistics do not necessarily reflect the entire IDP population in a given country but only those who are protected and assisted by the

agency. Moreover, under the cluster approach, UNHCR provides support to both IDPs and other affected people, though the latter are not included in these statistics. Hence, UNHCR's statistical data provide a comprehensive picture with neither of global internal displacement nor of total numbers assisted by the agency in such situations.

4. Returned refugees (returnees) are former refugees who have returned to their country of origin, either spontaneously or in an organised fashion, but are yet to be fully integrated. Such returns would generally take place only under conditions of safety and dignity. For this report, only refugees who returned between January and December 2014 were included, though practice operations may assist returnees for longer periods.

5. Returned IDPs refers to those IDPs who were beneficiaries of UNHCR's protection or assistance activities and who returned to their area of origin or habitual residence between January and December 2014. In practice, however, operations may assist IDP returnees for longer periods.[2]

6. Persons under UNHCR's statelessness mandate are defined under international law as those not considered as nationals by any State under the operation of its law. In other words, they do not possess the nationality of any State. UNHCR statistics refer to persons who fall under the agency's statelessness mandate as those who are stateless according to this international definition, but data from some countries may also include persons with undetermined nationality. UNHCR has been given a global mandate by the United Nations General Assembly to contribute to the prevention and reduction of statelessness and the protection of stateless persons. The agency also performs a particular function, under Article 11 of the 1961 Convention on the Reduction of Statelessness, in receiving claims from individuals who may benefit from the statelessness safeguards contained in that Convention and in assisting them and the States concerned to resolve these claims

7. Other groups or persons of concern refers to individuals who do not necessarily fall directly into any of these groups but to whom UNHCR has extended its protection and assistance services, based on humanitarian or other special grounds. [2]

Refugee data
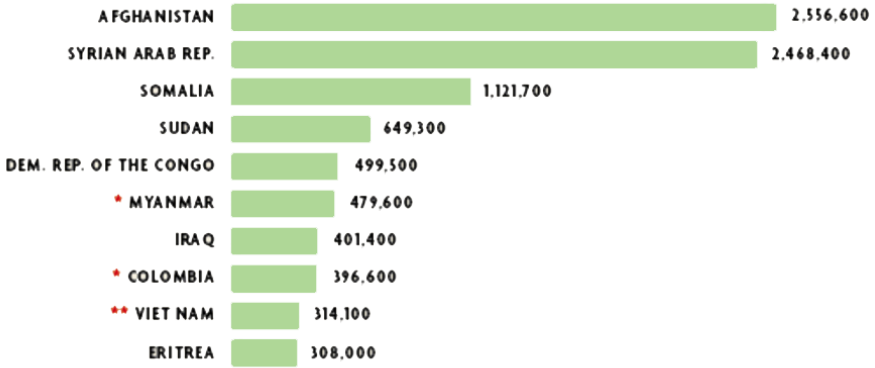
AFGHANISTAN	2,556,600
SYRIAN ARAB REP.	2,468,400
SOMALIA	1,121,700
SUDAN	649,300
DEM. REP. OF THE CONGO	499,500
* MYANMAR	479,600
IRAQ	401,400
* COLOMBIA	396,600
** VIET NAM	314,100
ERITREA	308,000

Q3.Major source countries of refugees | end-2013-UNHCR (2013)

(in millions)

Internally displaced persons

Refugees and asylum-seekers
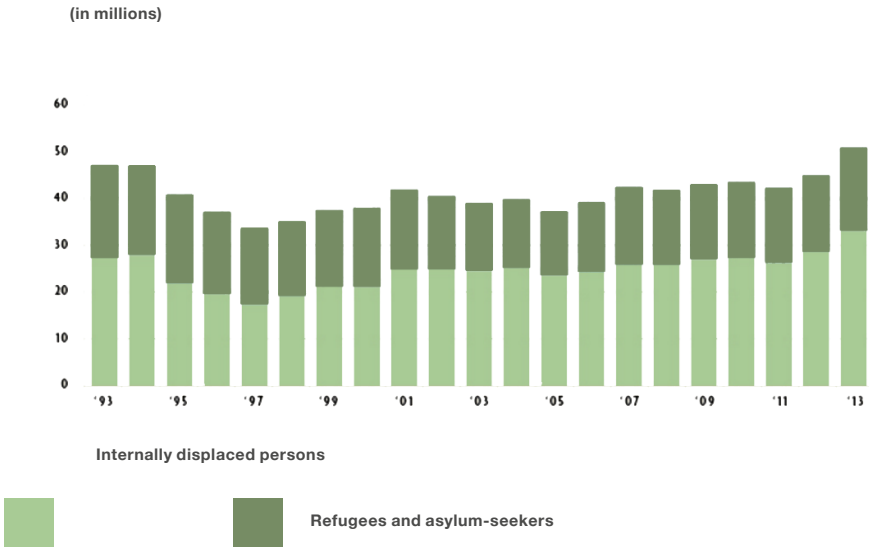
Q4.Global forced displacement | 1993-2013 -UNHCR (2013)

Refugee data analysis

In 2014, refugee data was predominantly collected by governments, UNHCR, and NGOs, three groups that have been the sources of humanitarian statistics for many years. While UNHCR and NGOs collect refugee data predominantly in developing countries, governments tend to be responsible for doing so in many industrialised countries. In general, data collection is a function of the operational role of each agent. For instance, in countries where UNHCR has an executive position, the Office tends to be the leading actor of data collection.

By the end of 2014, UNHCR and governments combined accounted for 82 per cent of all refugee data collection. It is important to reiterate that States have the primary responsibility of providing international protection for refugees, and hence the governments of those States have the responsibility for refugee data collection. However, lack of resources tends to inhibit some countries from undertaking this task. Instead, UNHCR has become the primary refugee data collector in countries where governments do not have the capacity or are unwilling to do so. [6]

In 2014, 173 countries provided refugee data to UNHCR, three more than the previous year. Of these, 133 reported using registration as a data collection method, compared to 114 a year earlier. UNHCR offices in 72 countries used record exclusively as a means of data collection, as opposed to 38 countries where governments did so. Registration alone accounted for 77 percent of all methods used for collecting refugee data in 2014, followed by an estimation of 13 percent. While most countries exclusively used registration, 17 states employed a combination of data collection methods in 2014. [6]

[6] UNHCR Statistical Yearbook (2014)

Year	Women	<18 years	18-59	>60 years
2003	48%	49%	46%	5%
2004	48%	50%	45%	5%
2005	48%	46%	49%	5%
2006	47%	47%	49%	4%
2007	47%	46%	49%	5%
2008	48%	44%	51%	5%
2009	47%	41%	54%	5%
2010	47%	44%	51%	5%
2011	48%	46%	49%	5%
2012	48%	46%	49%	5%
2013	49%	50%	46%	4%
2014	49%	51%	46%	3%

Q3. Demographic characteristics of refugees | 2003 - 2014

Total Refugees in Mid East

Q6. Refugees distribution in mid east - GeoCurrents (2012)

Refugees in Mid East

The main refugee problem lies around the middle east; especially of the Israeli-Palestinian conflict, Palestinian refugee camps are dispersed all around the neighbouring countries.

Refugees are also in the poorest countries, such as sub-Saharan African countries due to issues such as government instability, problems with ethnicity, climate change, droughts, desertification, poverty, and so forth. Where people have no choice but to take refuge in neighbouring countries. These refugees are under the temporary protection of UNHCR.

Also, asylum seekers are located mostly in developed countries as in Europe, Canada, and the USA, because they are those who have made it there but are still applying to stay. These countries giving more asylum seekers due to the less strict rules pose a larger burden, as some areas would experience a rise in violence against immigrants. [7]

[7] WRSC - Refugee and Asylum Seekers

Over three million

1 million~2 million

200,000~999,999

50,000~199,999

10,000~49,999
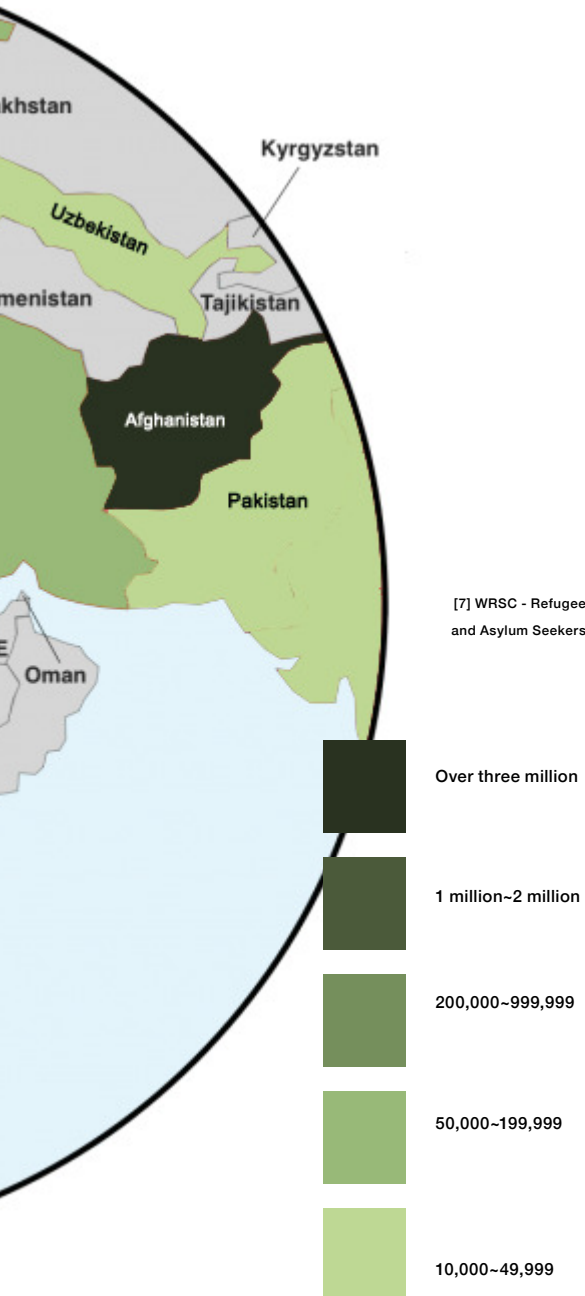
Syrian Asylum Applications in Europe

Norweigen Sea

North Sea

Mediterranean Sea
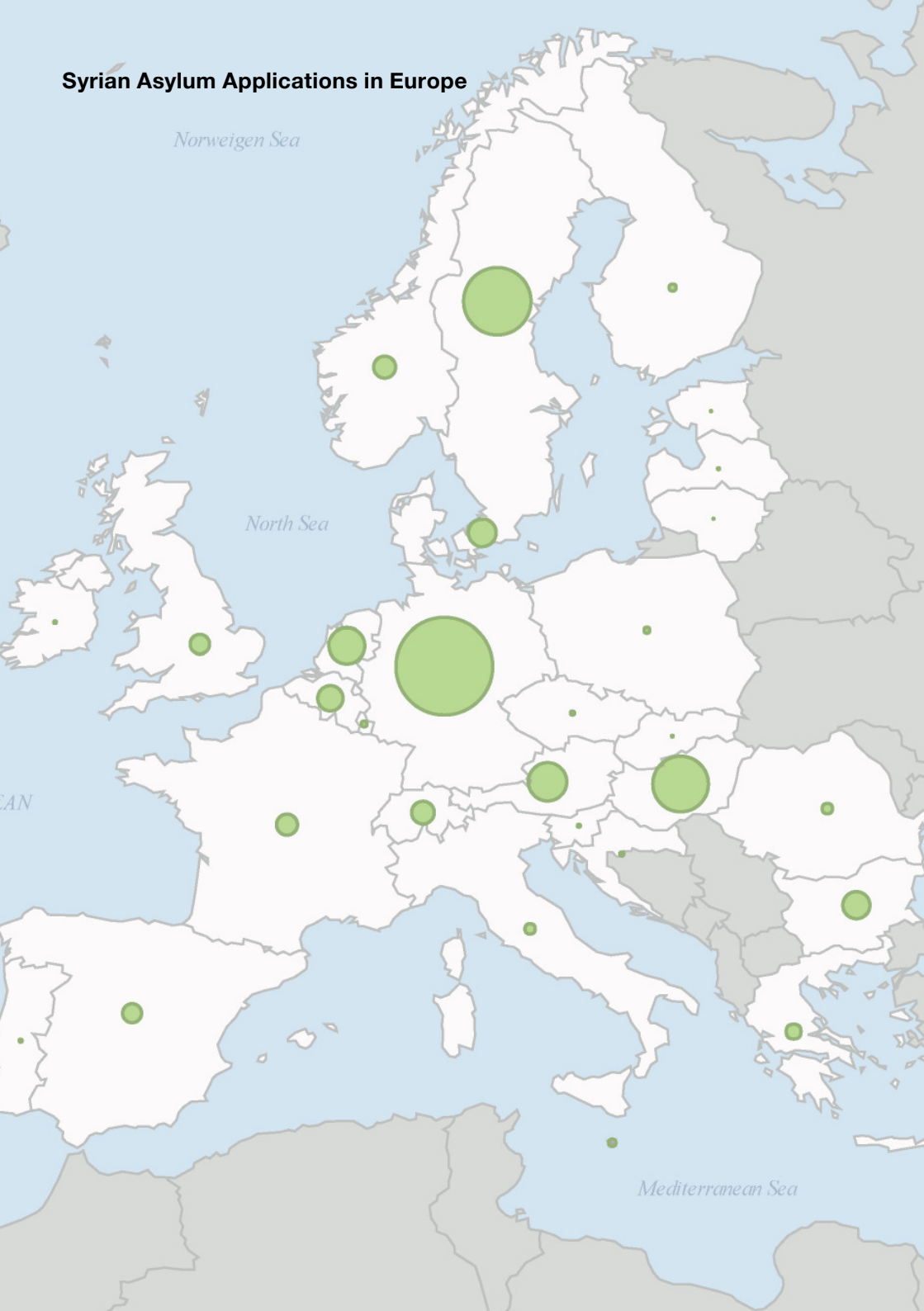
Total Asylum Applications

579,184

between Apr 2011 and Dec 2015

125,606

in 2014 only

Syrian refugees in Europe

The number of Syrians arriving in Europe seeking international protection continues to increase considerably. However, it remains small compared to Syria's neighbouring countries, with slightly more than 10% of those who have fled the conflict seeking safety in Europe.

More than four million Syrians have registered or are awaiting registration with the United Nations High Commission for Refugees, which is leading the regional emergency response.

Every year of conflict has seen an exponential growth in refugees. In 2012, there were 100 000 refugees. By April 2013, there were 800 000. That doubled to 1.6 million in less than four months. There are now 4.3 million Syrians scattered throughout the region, making them the world's largest refugee population under the United Nations' mandate.

The U.N. predicts that there could be 4.7 million registered Syrian refugees by the end of 2016 — the worst exodus since the Rwandan genocide 20 years ago.[5]

Top Countries

Germany & Sweden

Hungary, Austria, Netherlands, Denmark, Bulgaria

All others

15%

30%

56%

r

Refugees

R1. Human rights violations in syria - Ismail, A. (2016)
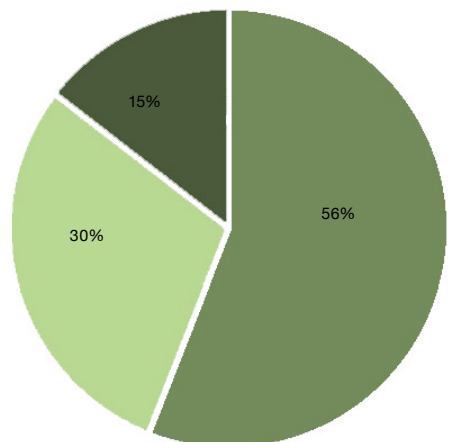
Definition

The word refugee, as defined by the Oxford dictionary, describes a person who has been forced to leave his country to escape war, persecution, or natural disaster.[1]

[1] Oxford dictionary

The causes of refugee crisis

Turkey
954,000 – 1,201,000
Georgia
Up to
280,000
Armenia
Up to 8,400
Azerbaijan
Up to
600,000
Russian Federation
At least 29,000
Serbia
About 225,000
Kosovo
About 18,000
FYR Macedonia
About 600
Kyrgyzstan
Up to
164,000
Afghanistan
At least 492,000
Bosnia and Herzegovina
About 103,000
Cyprus
Up to 210,000
Occupied Palestinian Territory
About 144,500
Libya
Up to 50,000
Chad
About 90,000
Senegal
20,000 – 40,000
Pakistan
At least 758,000
India
At least 540,000
Myanmar
At least 450,000
Mexico
About 160,000
Mali
At least 227,000
Côte d'Ivoire
40,000 – 80,000
CAR
About 132,000
Iraq
At least
2,100,000
Syria
At least
3,000,000
The Philippines
At least 1,200
Sri Lanka
At least 93,000
Colombia
4,900,000 – 5,500,000
Republic of the Congo
Up to 7,800
DRC
About 2,700,000
Lebanon
About 44,600
Yemen
About 385,000
Indonesia
Up to 170,000
Peru
About 150,000
Angola
Up to 20,000
Eritrea
Up to 10,000
Somalia
1,100,000 – 1,360,000
Sudan
At least 2,230,000
Kenya
About 300,000
South Sudan
At least 240,000
Uganda
About 30,000
Burundi
About 78,800

R2. The world map of internal displacement in 2012 - Juliablocher (2013)

Refugee caused by war

An estimated 13.9 million individuals
were newly displaced due to
conflict or persecution in 2014.

Globally-forced displacement has seen
accelerated growth in 2014, once again
reaching unprecedented levels. The year
saw the highest movement on record. By
end-2014, 59.5 million individuals were
forcibly displaced worldwide as a result
of persecution, conflict, generalised
violence, or human rights violations. This
amount is 8.3 million people more than the
year before (51.2 million) and the highest
annual increase in a single year. [2]

Refugee caused by disaster

19.3 million people were displaced
by disasters worldwide in 2014.

The latest figures from UNHCR estimate
that more than 19.3 million people
were forced to flee their homes from
disasters in 100 countries in 2014.
Hundreds of thousands are stuck
in displacement following disasters
that happened years ago. [2]

[2] UNHCR-Global trend, World at war (2014)

War & Conflict

War is a conflict involving the systematic use of weapons and physical force by states or other large-scale groups.

Warring parties generally hold territories, which they can win or lose; and each one can surrender, or collapse, thus ending the war. Wars are usually series of campaigns between two opposing sides involving a dispute over sovereignty, territory, resources, religion, or ideology. [3]

[3] Boom.be

R3. The Israeli War of 1948 - Hanna Licklider (2011)

Natural disaster

The definition of natural disasters is any catastrophic event that is caused by nature or the natural processes of the earth.

The severity of a disaster is measured in lives lost, economic loss, and the ability of the population to rebuild. Events that occur in unpopulated areas are not considered disasters.

Ergo, a flood on an uninhabited island would not count as a disaster, but when it hits a populated area, it is called a natural disaster. [4]

[4] Basicplanet.com-natural-disasters

R4. 2008 Sichuan earthquake - Associated Press (2011)

R5. The refugees during Iraq war - Tabatha Kinder (2014)

Iraq war

Iraq – 2003

Refugees have been a humanitarian issue for Iraq since its war with Iran in the 1980s, but the 2003 invasion resulted in a massive increase in their number.

The UN estimates that today 4.7 million Iraqis have left their homes (around 1 in 6 Iraqis), more than 2 million of whom left the country altogether.

Most settled in neighbouring Jordan, Lebanon and Syria, living without the protection of refugee laws in these countries and, in the case of Syria, facing renewed violence. As a result, some have started to return to Iraq and have been joined by Syrians attempting to escape the same conflict. [5]

[5] The Guardian - what happened history refugees (2013)

R6. Map legend-Iraq

B7. Ruins of houses after Sichuan earthquake

Sichuan Earthquake

China – 2008

The Sichuan earthquake of 2008 was caused by the collision of the Indian-Australian and Eurasian plates along the 155-mile-long Longmenshan Fault, a thrust fault in which the stress produced by the northward-moving Indian-Australian plate shifted a portion of the Plateau of Tibet eastward.

Compressional forces brought on by this shift sheared the ground in two locations along the fault, thrusting the ground upward by approximately 29 feet in some places.

Numerous aftershocks occurred in the days, months, and years that followed, including a magnitude 5.0 event that struck Chengdu in May 2010.

The Longmenshan Fault runs south-west to northeast along the eastern side of the Longmen Mountains and separates the Plateau of Tibet from the flat Sichuan Basin. [6]

[6] Sichuan earthquake of 2008 -
Kenneth Pletcher (2010)

R8. Map legend-China

Tohoku Tsunami

Japan – 2011

The Japanese earthquake and tsunami of 2011, also called Great Sendai Earthquake or Great Tohoku Earthquake,happened on March 11, and was a severe natural disaster that occurred in northeastern Japan on the Honshu island coast.

The event began with a powerful earthquake off the northeast coast of Honshu, Japan's main island, which caused widespread damage on land, and initiated a series of significant tsunami waves that devastated many coastal areas of the country, most notably in the Tohoku region (northeastern Honshu). The tsunami also instigated a major nuclear accident at a power station along the coast. [7]

[7] Japan earthquake and tsunami of 2011-John P. Rafferty (2015)

R11.The Syrian refugees - Ainsley Kendrick (2015)

R12. Map legend-Syria

Syria – 2011

It started with thousands of people protesting on the streets. It has resulted in millions on the move. Syria's civil war has generated the world's gravest refugee crisis in a generation, with close to 2 million people fleeing the country and perhaps twice that number uprooted and homeless within Syria itself.

A year after the largest refugee camp, Zaatari, opened on the Jordanian border, the Guardian collects refugee voices and stories, investigates the way these people live, and asks what more can be done for them.[8]

[8] The Guardian, Syria refugee crisis-World news.

S

Student work: prototypes

Introduction

Building trust in refugee camps. Refugees live for years in a state of permanent temporariness. Emergency and scarcity are major drivers of existing communal building designs. In response, our project aims to develop a series of public buildings prototypes of dignifying aesthetic qualities. These are public buildings that can improve the quality of life and empower communities, despite the limitations of semi-permanent places.
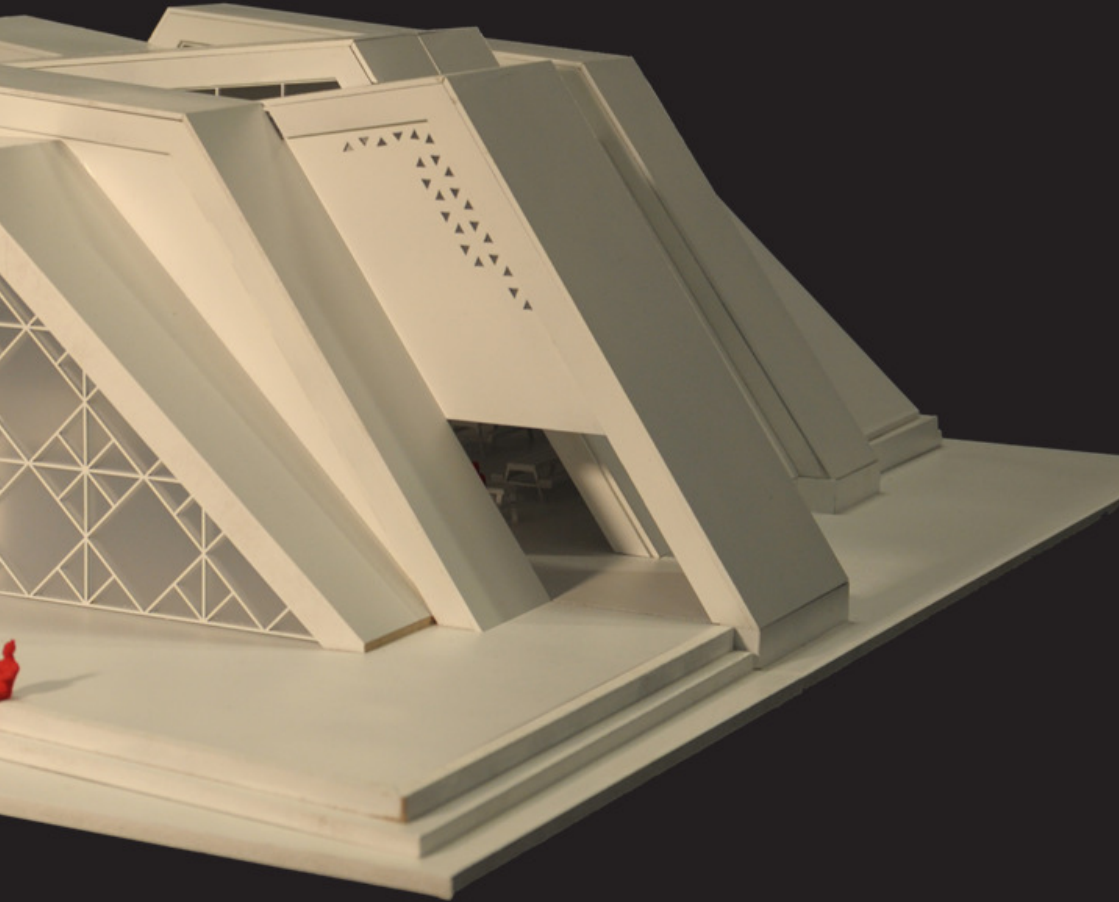
pop-arch system

Pop-Arch is a pop-up school designed for refugee camps. It is constructed out of a foldable, self-supporting origami structure and is made out of identical triangular panels which compress a watertight membrane. Fillable floor panels form the foundation and hold the structure in place. The foldable unit in the centre of the building serves as a learning landscape for the children. Pop-Arch is quick and easy to build in disaster situations.
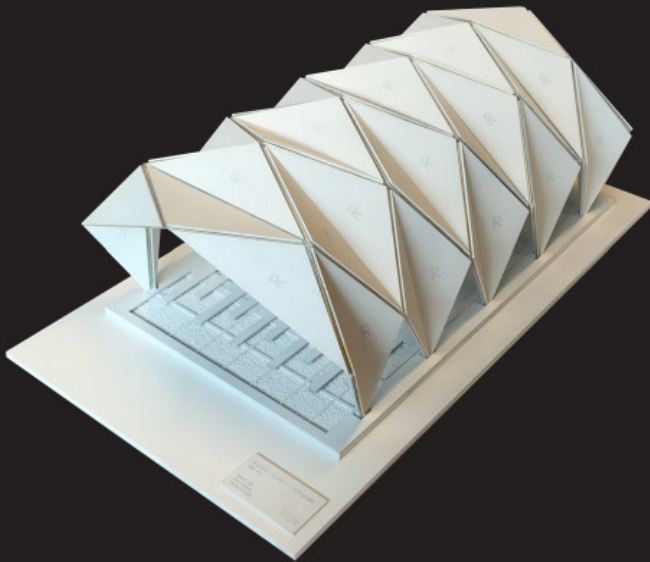
PopArch prototype model, 1:50
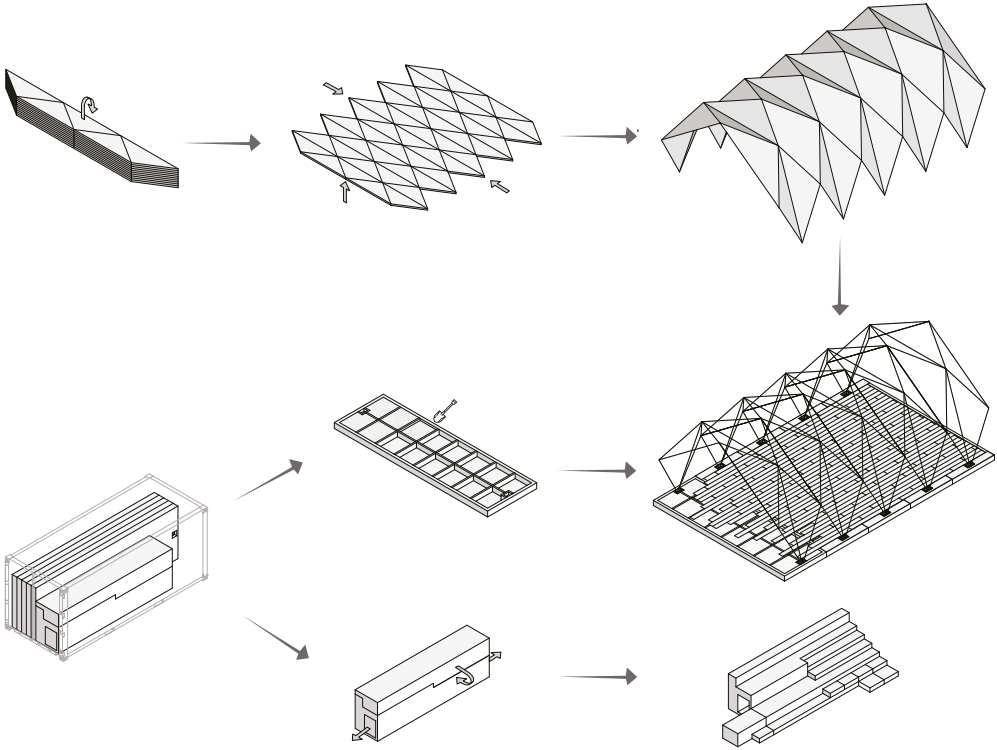
Transport package and construction process

Trifold building system

Trifold is a building system which can be used in crisis situations to set up a public building quickly and efficiently. The system is based on a series of foldable triangles which can be manufactured into different construction elements. With the system trusses, foundation and facade elements can be made in no time. The foldability of the system ensures maximum efficiency in transport. To summarize, with the Trifold Building System a building can be realized quickly and without much prior knowledge. The design which is presented on the table shows a possible application of the system in the form of a ceremony space with community function.

Trifold prototype model, 1:50
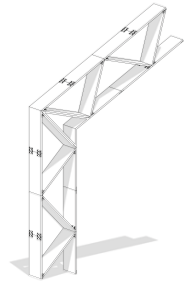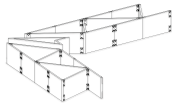
trusses
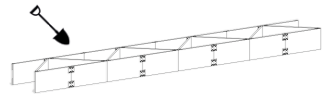
foundation
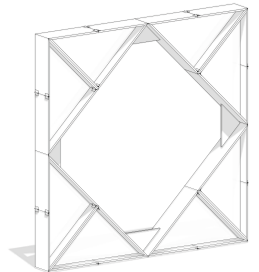
facade elements

Transport package and construction process

BinAir System

How architecture can contribute to bring more dignity inside a refugee
camp in the Middle East. Large common spaces provide more social
coherence and should let them feel more a resident of a new society.
'BinAir' has the aim of being an answer. These stackable bins can be transported
efficiently and with a small toolset mounted into walls, columns, windows,
benches or floors. Subsequently these bins can be filled with local materials to
get the required mass. This model is an outcome of a design for a hamam.
Hygiene is an important issue and a hamam can provide
both hygiene and social interaction.
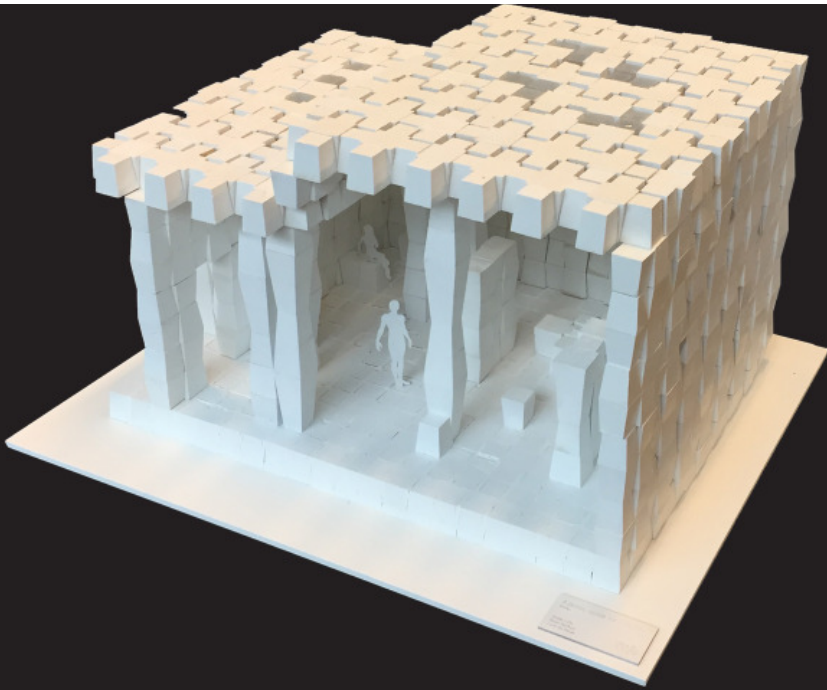
BinAir prototype model, 1:50

Stackable

Fillable bins

Floor system

Transport package and construction process

500mm

500mm

600mm

600mm

500mm

500mm

Grid system
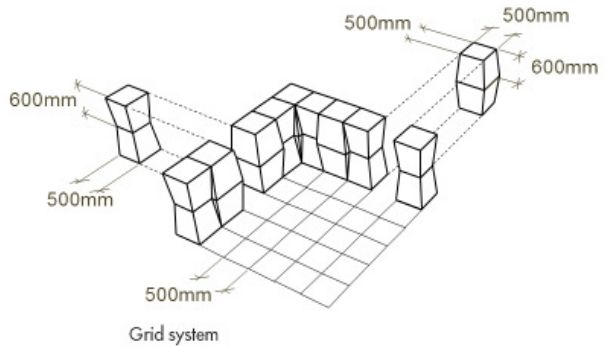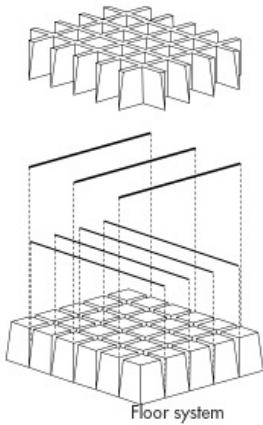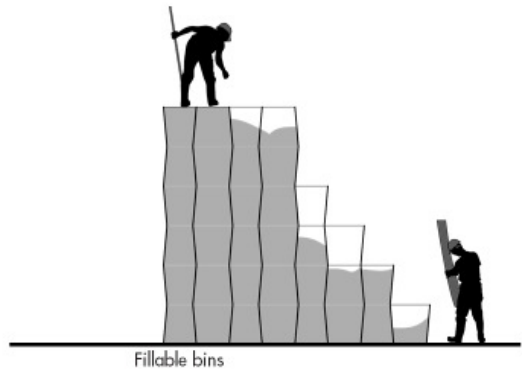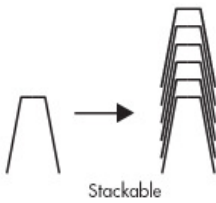
S

Student work: graduation designs

Introduction

This segment summarises the results of the effort of twelve MSc graduation students at TU Eindhoven. The projects presented here show a range of approaches towards designing public buildings and space for refugees. All projects address a programmatic novelty, some of them seek a technological novelty, and two construct a future vision.

Densification in Za'atari

From camp to city

Refugee camps like the scale of Za'atari are becoming more and more (in)formally densified. The hardening and densification between private and public in the camp structure, as well as the lack of regulations, the poorly insulated tents, caravans & cabinets that are also uncomfortable, weather-/noise sensitive with a limited lifespan, affects the refugees that are living in there for years. Many therefore rolling up their sleeves and renovate-, expand or build their house that is becoming a sprawling makeshift camp. These development are also noticed in Za'atari, threatening to become an urban wilderness.

The Multi-layered urban space project is a different approach towards densification. The research question to this end is as follows: "How can refugee camps be densified that provide longer-term solutions, solving the existing problems and manifests participatory design?"
This project aims to become a reference point for the development of a new type of architecture in refugee camps, and respecting the existing fabric. By designing a modular, adaptable, multi-layered building that anticipates on the future needs and changes in the refugee camp. The variable and flexible private and public spaces coming together, merge and change simultane¬ously throughout the years. There are four housing typologies. These are one person apartment, family-, two story apartment and luxurious. The two typologies of public spaces, are active recreation for sport and leisure, and activity area for MOOC lectures, theatre and events where self-development can be fulfilled.

Floorplans ground floor - third floor

Existing situation, during morning

More developed situation, during afternoon with an open activity
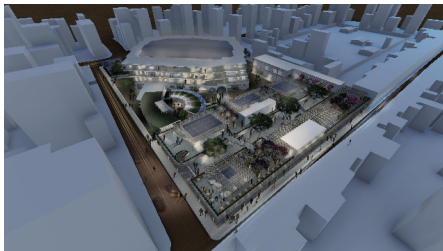
Future situation, during night with performances

BinAir - Kitchen

Main hall of Eleonas Refugee Kitchen Design

STACKABLE BINS | Easy, Self-buildable
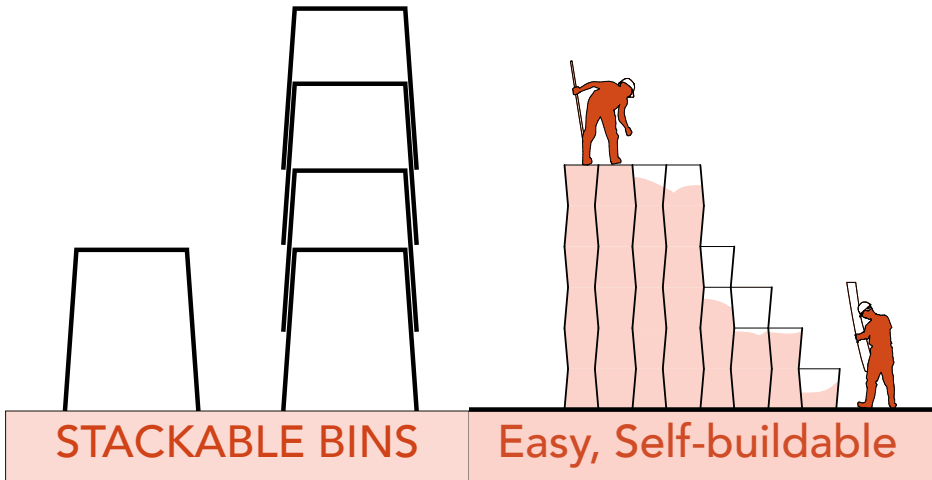
BinAir is a stackable building system, which could be efficiently transported, and being filled on site with sand, stone or any other local material. It is connected with a sliding system perfectly grid oriented. This system is designed to use in emergency situations as an easy, quick, self-built building. With this system, large spaces could be made with a set of simple instructions. This Restaurant for the Eleonas Refugee Camp in Athens is an example.

Grid system

Roof beams
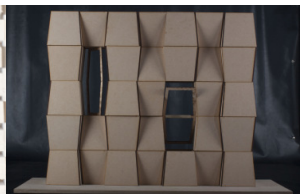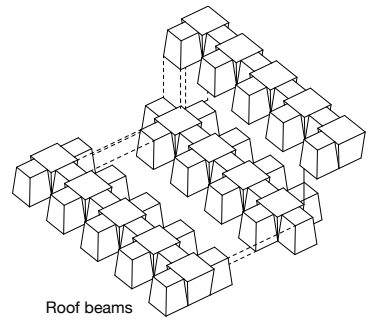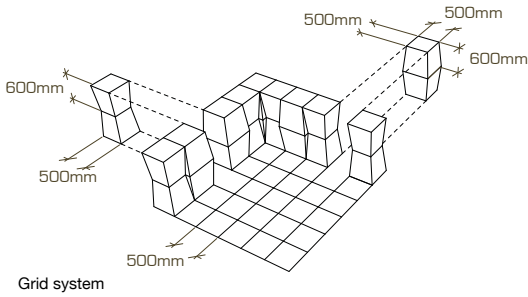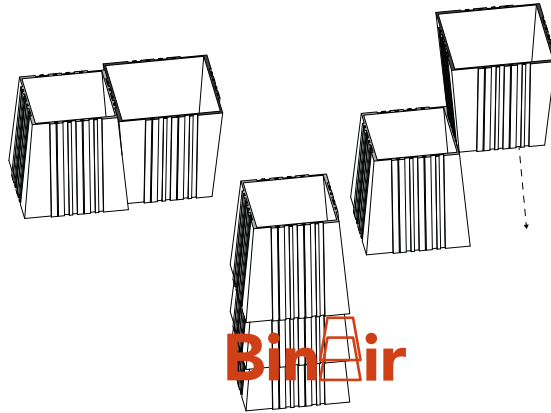
Prototypes of Doors, Roofing and windows

Trifold Market Square
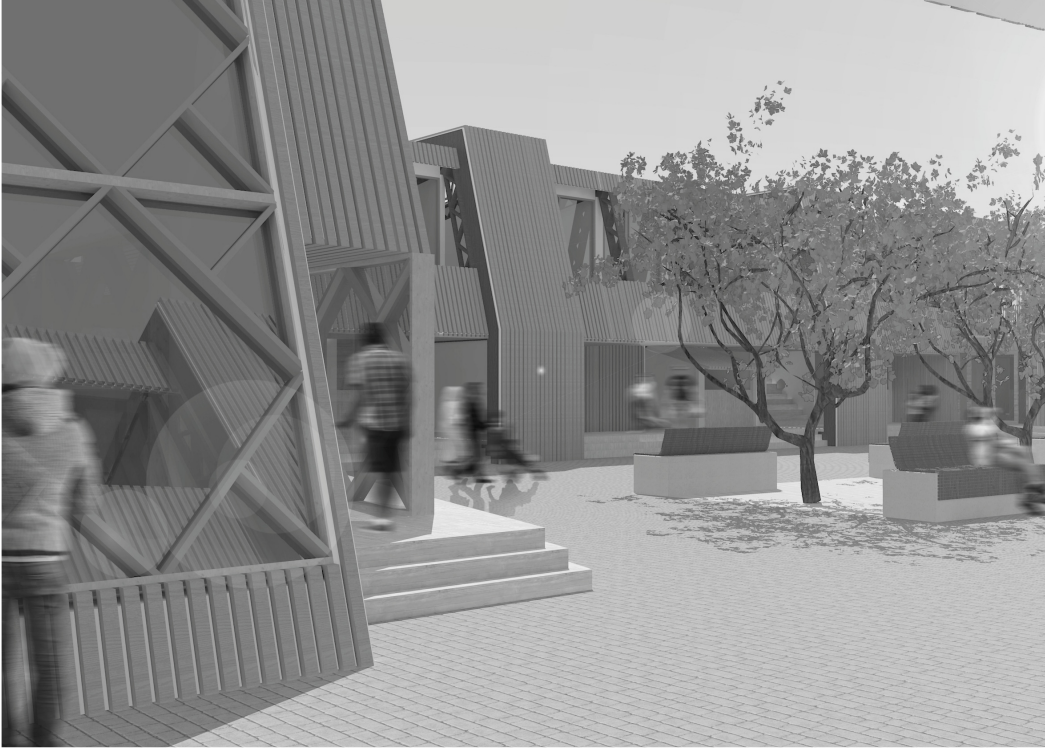
Based on the boredom problem in refugee camps I developed a public market square, which works as a platform to the refugees. It gives the refugees the opportunity to produce and offer their own product. This results in a system where the refugees can benefit from each other's qualities. Second of all will this public market square serve as a place where refugees can escape from the daily chaos in the camp. To create a square where people like to be and feel connected there will be a community space in the form of a ceremony area.

I also developed a building system that is fundamental for the realisation of my design: TRIFOLD BUILDING SYSTEM. This building system responds to the circumstances in crisis situations, such as refugee camps. So it is convenient to transport and easy to build without prior knowledge. This building system has its own architectural language and is therefore really determining for the design.
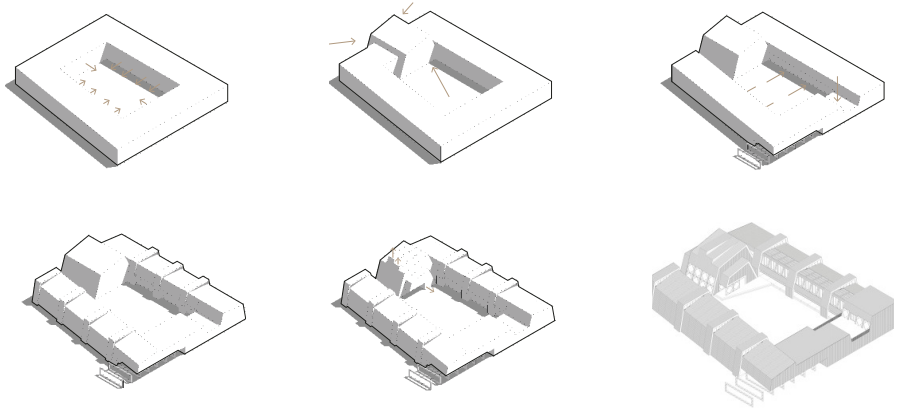
Concept
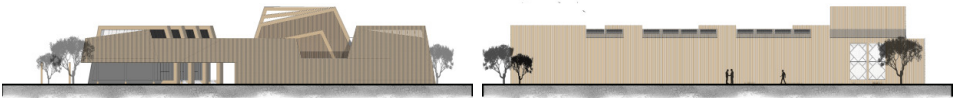
Closed- introvert facades

Sections
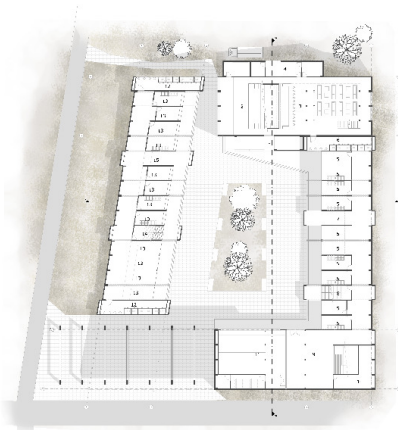
Groundfloor
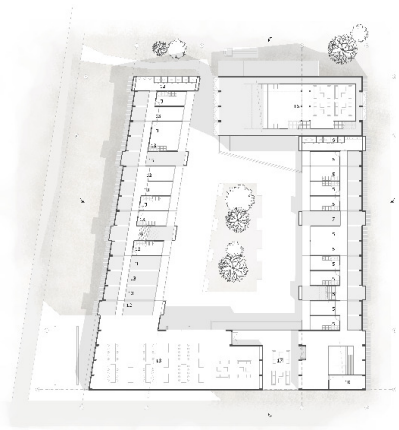
First floor

Pop-Arch

With the ambition to build a school that has the expression of a permanent building, but is quick to construct and can be removed over time, the pop-up school came to life. The conclusion of the catalogue – building level showed, even though schools in camps are reduced to only classrooms, the need to split children into age categories is important for teaching. Because not every child might be at the same level at the same time the children will be split into three age groups. 4-6 years, 7-9 years and 10-12 years old. These clusters are all linked to an outdoor space. An office for teachers is available in the center of the school and provides a broad overview of the playground and its surrounding classrooms.

4-6 Years

7-9 Years

Store

WC

Outdoor space/ playing

WC

Store

Office

10-12 Years

Kitchen

Store

Toilets
Playground
Office
Playroom
Dining hall
Studyroom
Classroom
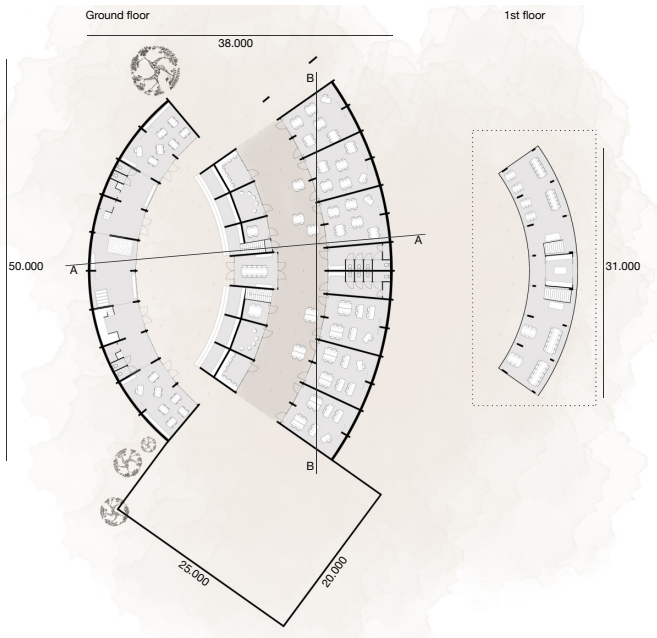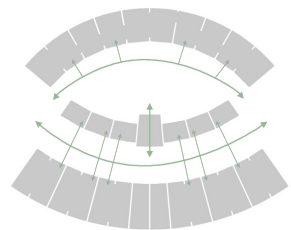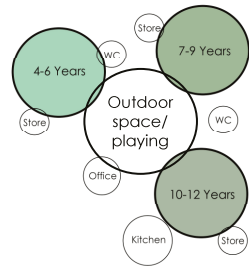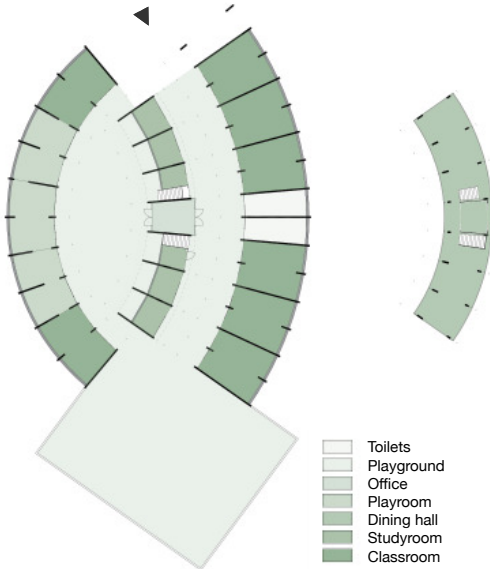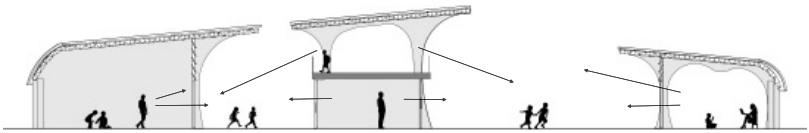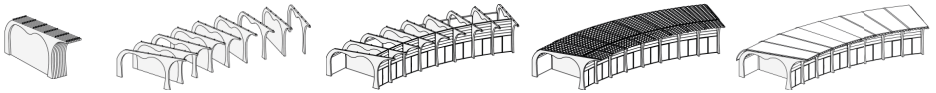
Sports Mosque

"Camps keep refugees alive, but they prevent them from living."
Elizabeth Dunn

Refugees have to deal many years of problems with adaptation to a new life where they end up without own will. Due to circumstances they abandon their lives and often go empty-handed to a safer place to find shelter. Often they end up in refugee camps with thousands of others with the same problem as themselves. By continuous wars most of them stay there on average 13 years and there arises even whole new generations in these camps. Furthermore, a lot of people are not able to work or are not allowed to go outside the borders, which results in boredom, idleness and tensions among themselves. This causes both physical and mental issues and needs to get some attention.

With my Sports Mosque, I offer the refugees a solution both physically and mentally. The refugees are mainly from the Middle East and because of their religion and culture it is not really obvious to have an activity as a sport. Instead of keeping it that way I want to offer the refugees a Sports Centre, which gives them opportunities to get involved with sports. To make it more acceptable and challenging I want to create a synergy between sports and religion.

The concept was developed from the idea that a plurality of different features may be present separately from one another, but still covered by only one roof. A total interaction will be resulted in the use and participation with this building.
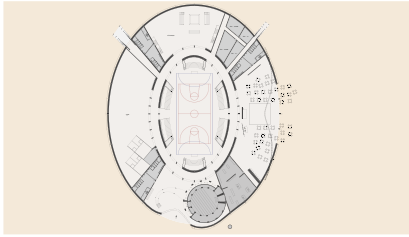
Floorplan

Entrance / Ceremonial Space
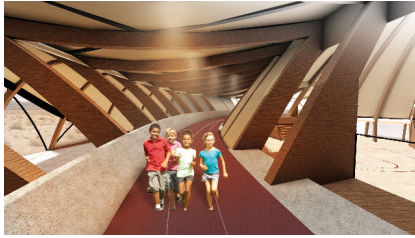
Racetrack

Mosque
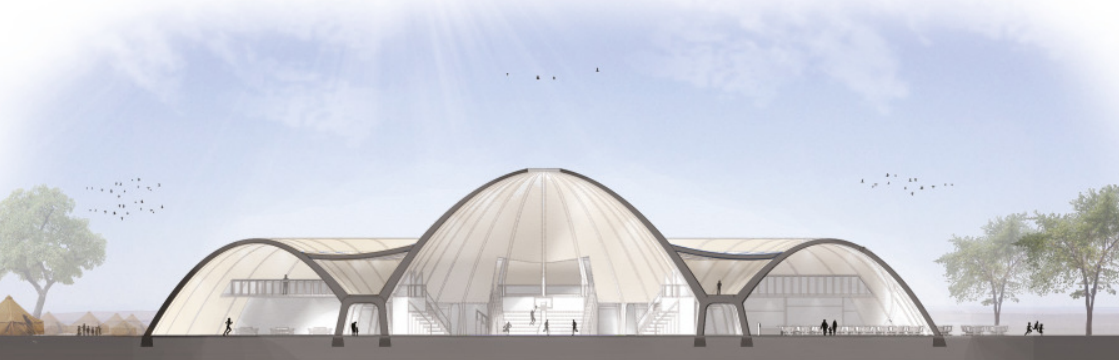
Cross Section

Longitude Cross Section

Refugee Development Center

From emergency to development
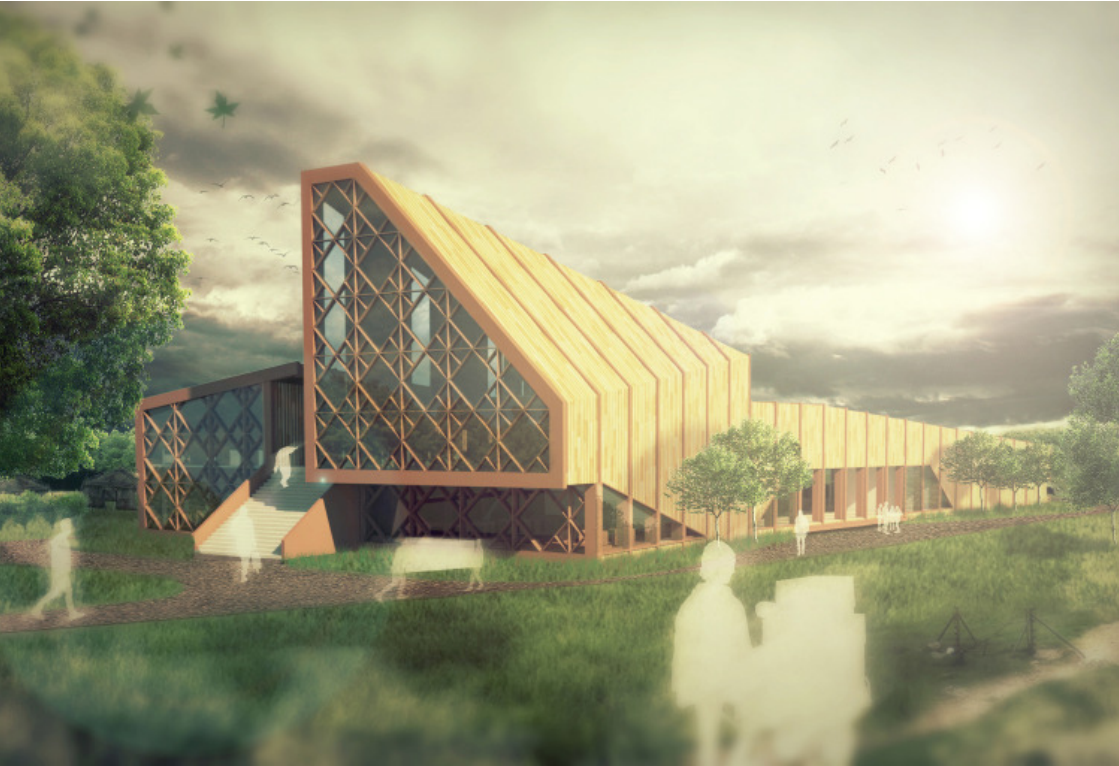
Trifold development center is a design of an evolving building, meant for refugees, with functions which are related to the different phases in informal settlements. At first, the building starts as an emergency unit, which provides sanitation, shelter, food and health care. Over time this building evolves in to a more public building with functions such as libraries, communal spaces and ceremony spaces. By serving the needs of the refugees in these different phases, this building should be able to catalyze the transformation from emergency to development. The building is executed with the trifold building system, a system which is designed during the graduation. The system consists of a series of connected foldable triangles with which floors, wall, roofs and foundations can be made.

Foundation

Trifold standard element

Facades

=

Trifold facade element

Trusses

Trifold portal element
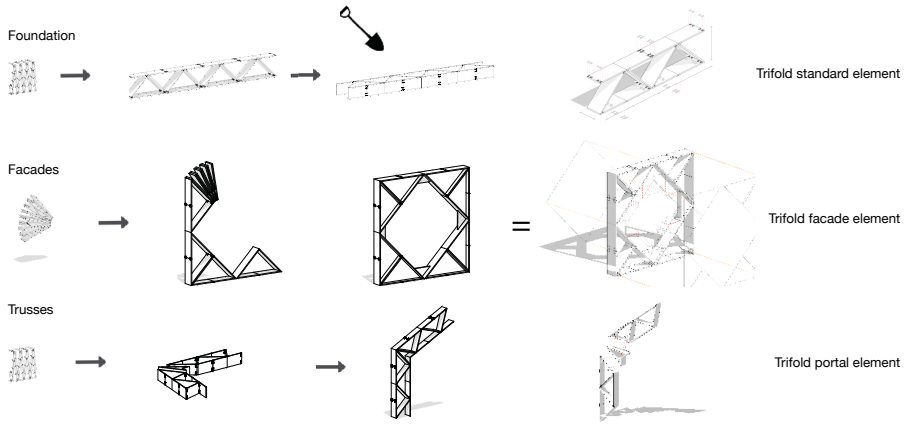
Trifold building system concept

1. Footprint determined by site

2. Devide in layers (extrovert/introvert)

3. Public street trough building

4. Connect both volumes

5. Connections with environment

6. Split levels to increase lighting

7. Connection zones

8. Buildings as an icon

9. End result
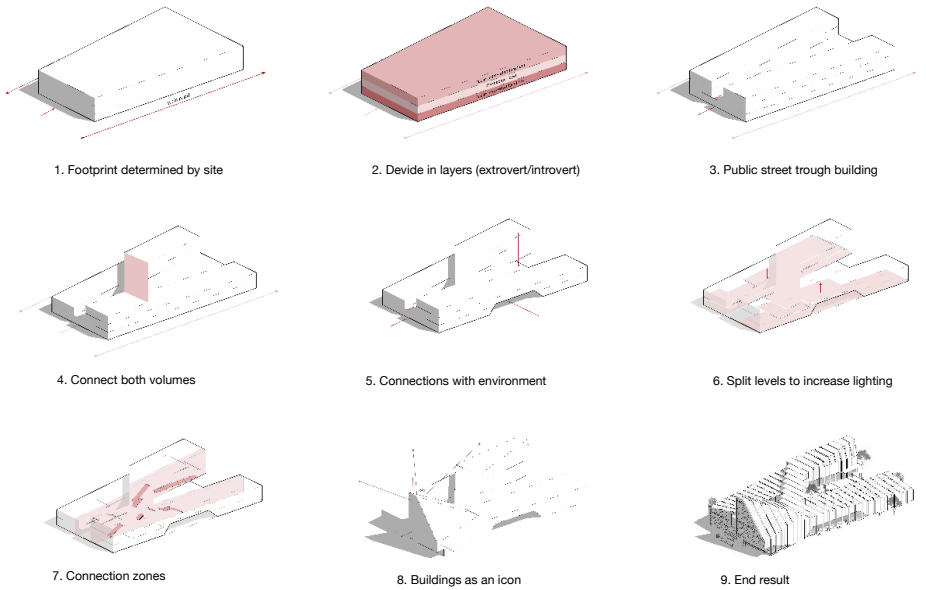
Building design concept

Refugee Development Center

Floor plan of level 0
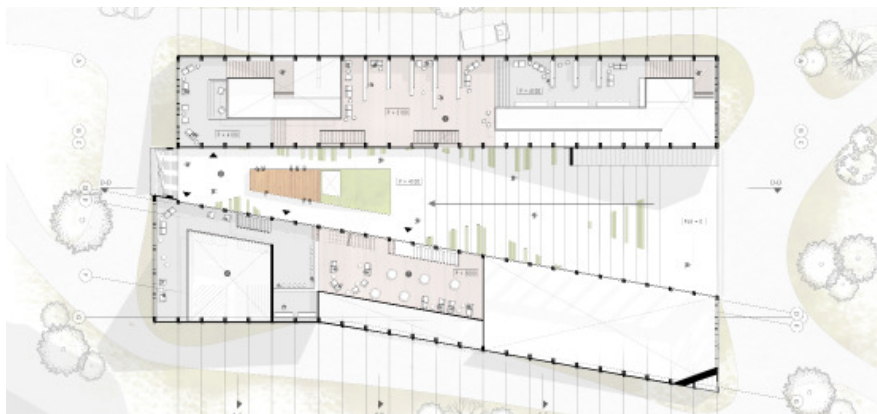
Floor plan of level 1

Floor plan of level 2

Ceremony space
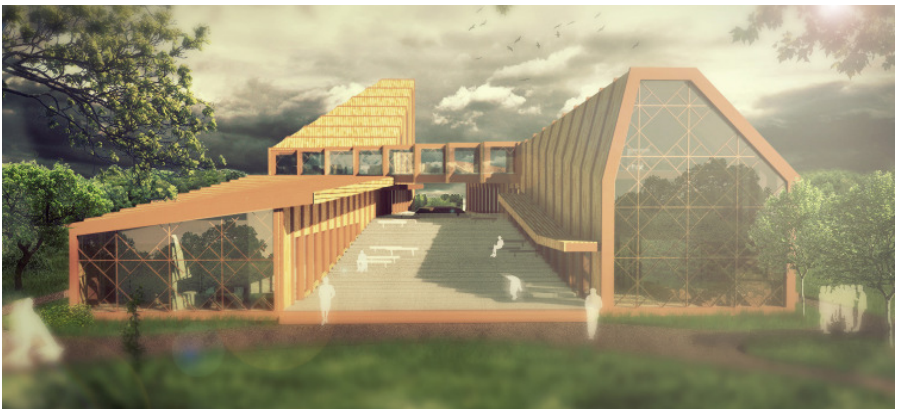
Public street trough building volume

Hamam for refugees

A Temporary Safeguard in a Refugee Camp

Male hot room

With the refugee crisis that is going on now a lots of problems occur inside refugee camps. These issues vary from minor to life treating situations and they occur everywhere. Therefore it is impossible to solve them all. But when looking at solutions instead of only issues an overall opinion of the refugees is that they want to regain their standards that they were used to. This hamam has the aim to become a place where refugees can temporarily escape these daily problems.

The building is constructed with the BinAir building system these stackable bins can be transported efficiently and with a small toolset mounted into walls, columns, windows, benches or floors. Subsequently these bins can be filled with local materials to get the required mass. With this flexible building system the right atmosphere for the large indoor axis, outdoor patios, cleaning rooms and resting spaces will be created.

Reduce problems temporarily in a Hamam

New social connections

HAMAM

Get clean

Temporary rise in Maslow pyramid

Lots of problems, not all solvable
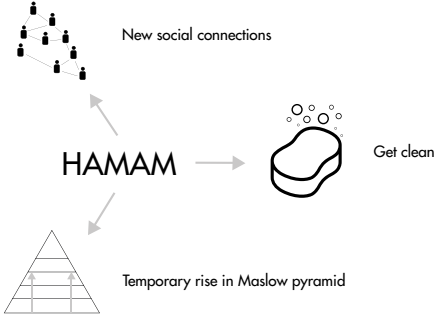
Building concept flowchart
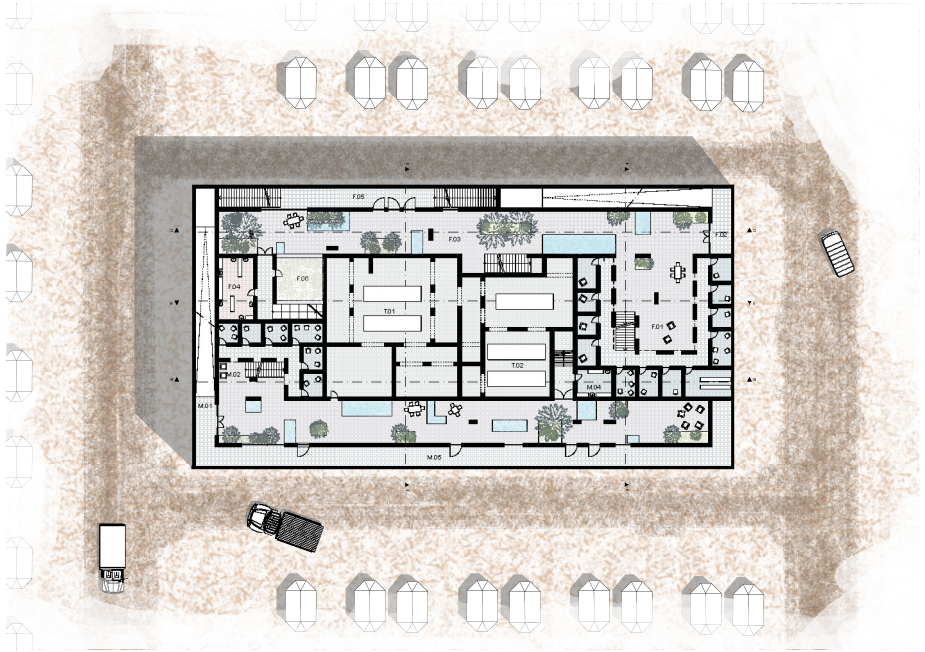
Floor -1 (p-1200)

m
20 12 4 0
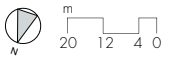
Hamam for refugees
A Temporary Safeguard in a Refugee Camp

Section through central axis

North elevation

m
15 9 3 0
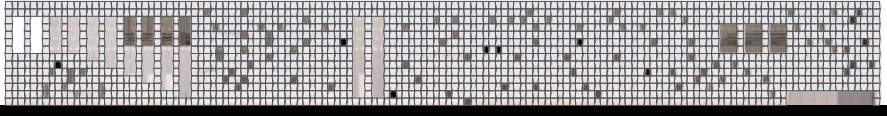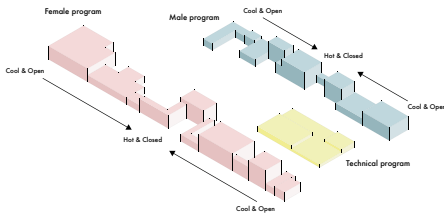
1 | Hamam program translated into volumes
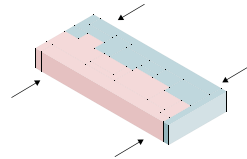
2 | Interlock male and female program
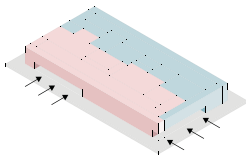
3 | Add entrances
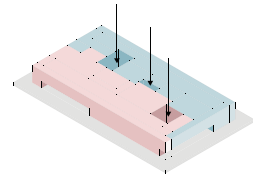
4 | Introduce patios to increase daylight

3D section through the different rooms

Changing room   Warm room

Detail of 1:100 model
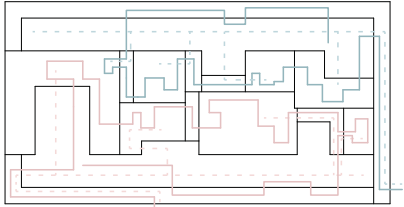
Different routes through hamam
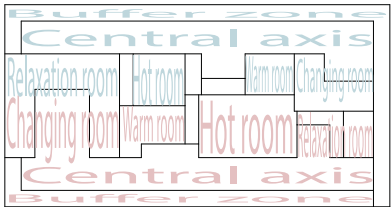
Hamam program
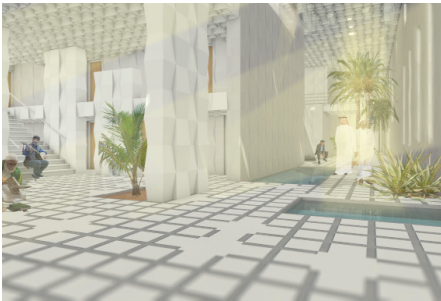
Male central axis

Female buffer zone
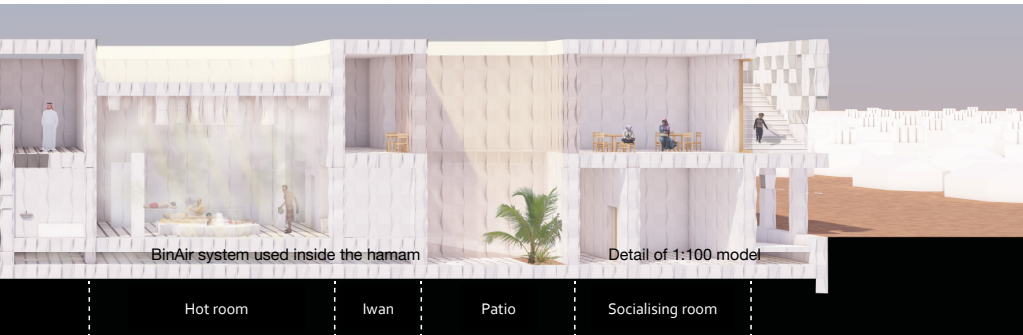
BinAir system used inside the hamam

Detail of 1:100 model

| Hot room | Iwan | Patio | Socialising room |

Hamam for refugees
A Temporary Safeguard in a Refugee Camp

Wall of 1:20 model made with BinAir building system

Hot room of 1:20 model

PRINCIPLE

4 types of bins

Easy to fill with local materials

Stackable

500 mm x 500 mm grid system

WALLS

FLOORS

BUILDING

Connecting profile

Place for adding attachements

Fill bins with local material (e.g. sand)

Plastic

Connecting with connecting profile

Transparent bins

Non-transparent bins

OPTIONS
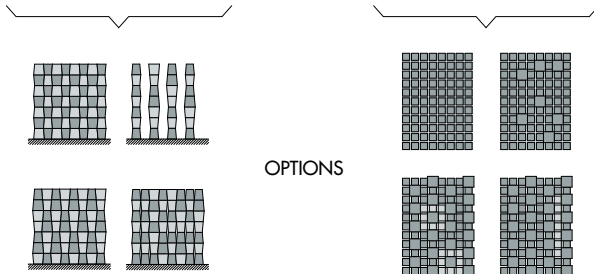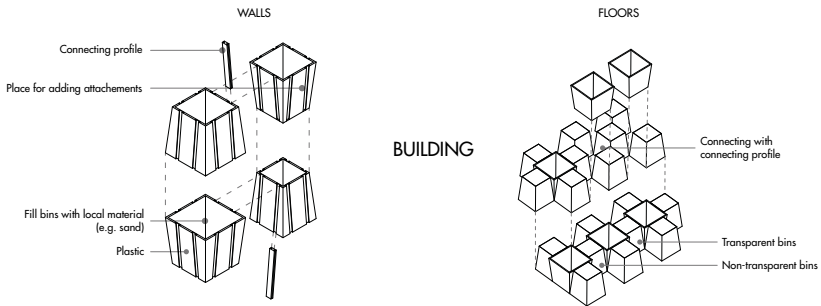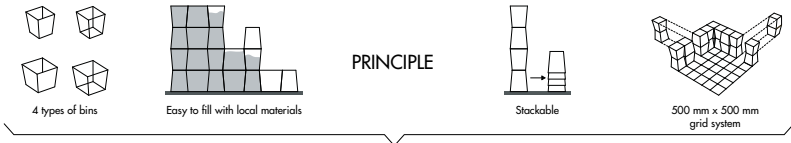
BinAir design flowchart
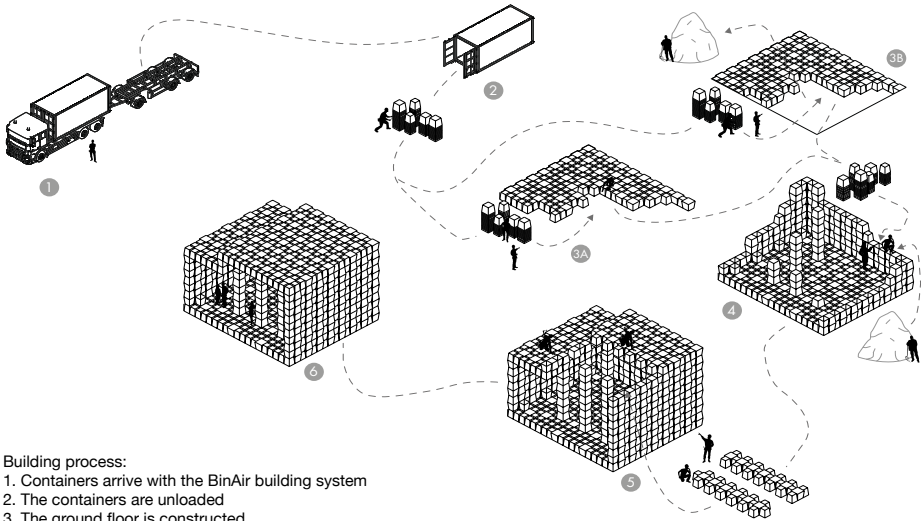
Building process:
1. Containers arrive with the BinAir building system
2. The containers are unloaded
3. The ground floor is constructed
    A. The floor is placed in the sand and the sand is used to construct the building
    B. The floor is placed on the sand
4. The walls are constructed with local material only using simple tools
5. The roof beams are constructed and place on the roof by human force or by a crane
6. The building is finished and ready to use

3D section through buffer zones, central axes and hot room

De Vluchtstad
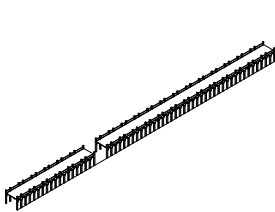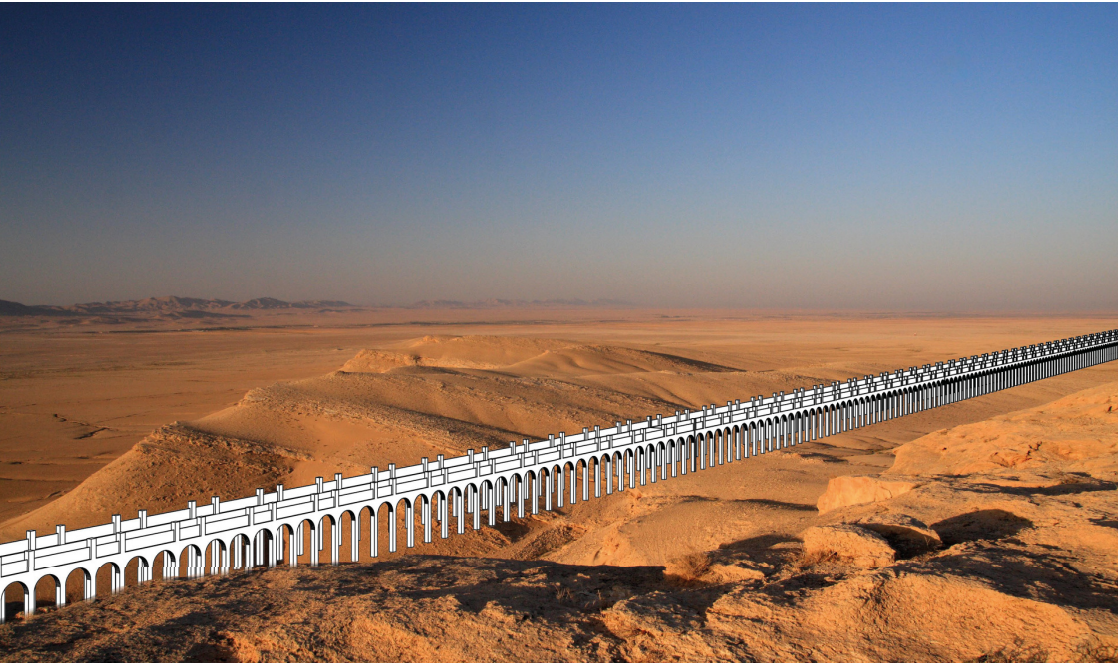
Phase 1 - The Guide
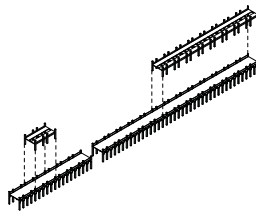
Phase 3 - The Dock
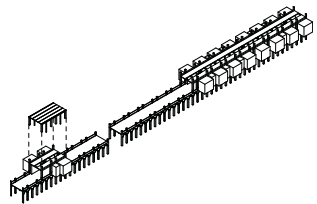
Phase 7 - Self Sufficiency

'De Vluchtstad' is a provocative solution for the worldwide refugee problem. Through the means of a adaptable lineair city a collaboration between different nations is imposed. This lineair city acts as a permanent physical element on a global scale for a permanent problem that is rather looked at as being a temporary one. Asides from offering refugees clarity in finding a place of refuge and allowing them to build and grow in that newly created environment, the lineair city can also be used by non refugees in the future.

Elevation of the lineair city through Istanbul

Level of self building

The Garden of Eden

Multi-layered refugee camp design in Athens city

Basically, my design concept can be explained within one sentence: Constructing building in separate steps with various layers. The construction process is made up of four different steps, which are first phase, transition phase, third phase and the future phase. The first phase is aimed to provide some kind of basic services related to social activity and leisure facilities while the transition phase tends to provide the education and healthcare facilities. After that, the third phase will provide a comprehensive coverage of different public services and facilities for the refugees. While the future phase is served for the sustainable development strategy when the elonas refugee camp is demolished.

First phase   Transition phase   Third phase   Future phase
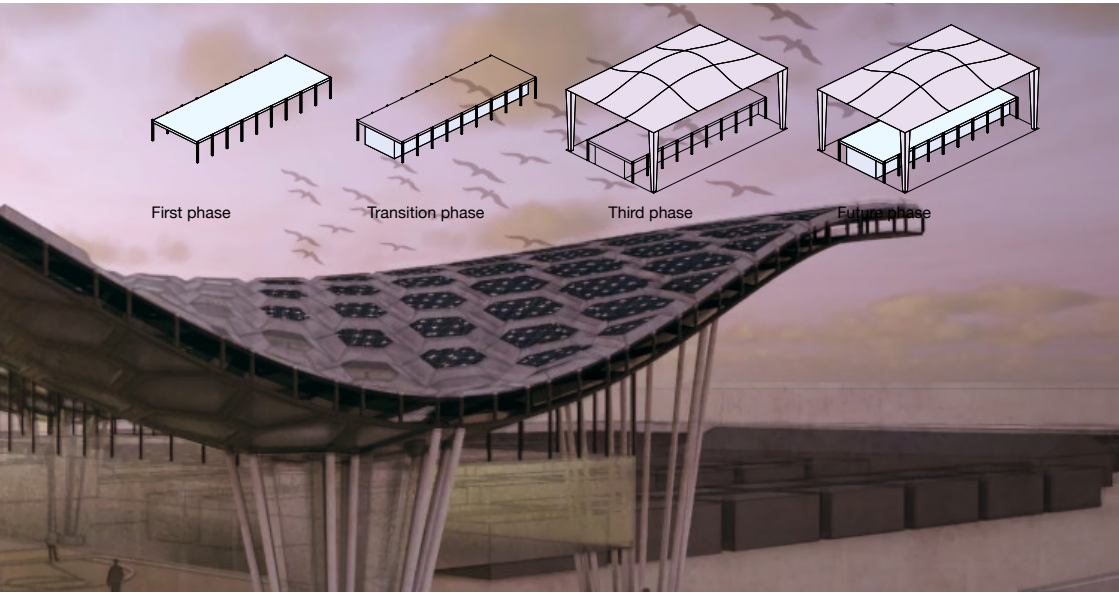
Thirs phase ground floor plan
Scale:1/800
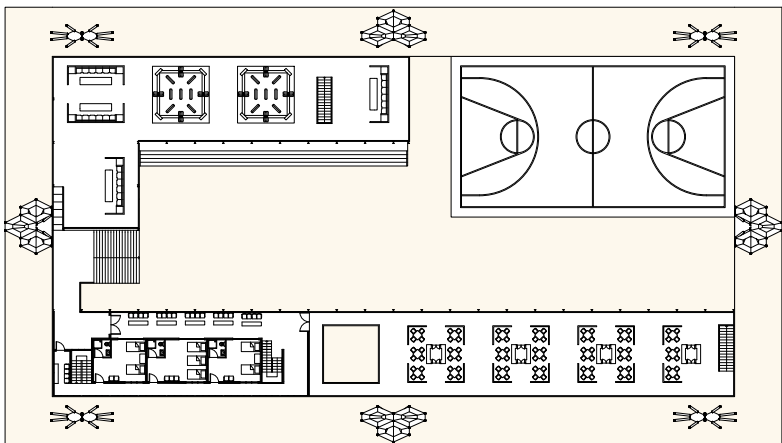
Thirs phase first floor plan
Scale:1/800

LEAV

Pop-up seclusion space

LEAV is a pop-up seclusion space inspired by Origami. It is a silent place where refugees can escape from their everyday chaotic life. It is a place where people can pray. A place where people sink into their own thoughts and look beyond the borders, both figuratively and literally. Whereas the solid appearing outer skin absorbs distractive sounds, the inside reflects the thoughts of those who enter. Its geometric design provides structure and understanding. There is no room for distraction. It is a place which empowers communal strengthening, yet provides the opportunity for total exclusion from the rest. Natural light is the tool that provides comfort.

Enter through a niche

REF-CYLE

A new approach to recycling

Waste materials form a seemingly inexhaustible source for recycling. For Zaatari, the biggest refugee camp in Jordan, a factory for waste recycling was designed. The products from this factory have many applications. For example, for building communal spaces or as compost for raising vegetables.

Interior visualization of the factory

Visualization of the cardboard pavilion
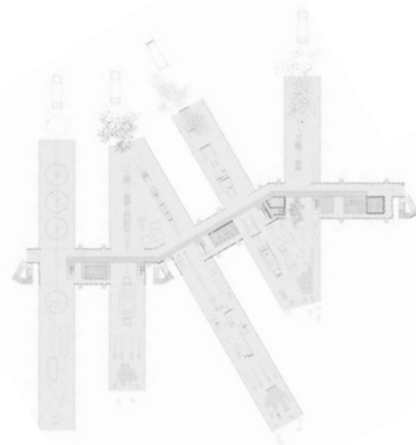
Plan of the first level

Roof plan

t
Typologies

Definition

Typology is a classification according to general type, especially in archaeology, psychology, or the social sciences. [1] In this case, the different shelters are classified into three main groups. These groups are determined by the way they are provided. Subsequently, each group contains the different kind of shelters based on their building method.

On the next pages, a few of the typologies will be explained by an example.

[1] oxforddictionaries-definition, typology

Overview

TYPOLOGIES

main categories	self-made shelters			tents + self-made shelters				
front view								
top view								
side view								
shelter type	cement block house*	sheet metal shelter	shelter from found materials	UNHCR tent mod. 2	UNHCR family tent	UNHCR tent	tipi	foldable tent*
capacity	5 persons	5 persons	5 persons	5 persons	5 persons	5 persons	not specified	not specified
total floor area	20 m²	±10 m²	±8 m²	16,5 m²	23 m²	12 m²	12 m²	12 m²
floor area per person	4 m²	±2 m²	±1,6 m²	3,3 m²	4,6 m²	2,4 m²	not specified	not specified
costs of 1 unit	$307 USD	nothing	nothing	$280 USD	$500 USD	$135 USD	not specified	not specified
costs of 1 unit per m²	$15 USD per m²	nothing	nothing	$17 USD per m²	$22 USD per m²	$11 USD per m²	not specified	not specified
life expectancy	±5 years	±3 months	±3 months	3-5 years	±6 months	±6 months	not specified	not specified
buying costs calculated per month life expectancy	±$5 USD	nothing	nothing	±$8-5 USD	±$83 USD	±$22 USD	not specified	not specified
built-in facilities	shelter stove for heating kitchen toilet	shelter	shelter	shelter	shelter	shelter	shelter	shelter shower
external facilities	shared bathroom	not available	not available	shared kitchen shared bathroom shared toilet	shared kitchen shared bathroom shared toilet	shared kitchen shared bathroom shared toilet	not specified	not specified

T2. Different shelter typologies - Rouw, L. (2016)

building kit*	caravan shelter	abandoned office building*	stacked 40 ft shipping containers*	house*	barrack*
5 persons	5 persons	>1000 persons	12 persons	10-17 persons	12 persons
17,5 m²	18 m²	15000 m²	30 m²	120 m²	200 m²
3,5 m²	3,6 m²	15 m²	2,5 m²	12-7 m²	17 m²
$1100 USD	$2300 USD	none	$1800 USD for only the container	±$80.000 USD	$50.000 USD
$63 USD per m²	$128 USD per m²	none	$60 USD per m²	±$667 USD per m²	$250 USD per m²
±3 years	15-20 years	depends on the building owner	15-20 years	50+ years	20+ years
±$31 USD	±$13-10 USD	none	±$10-7,5 USD	±$134 USD	±$210 USD
lockable doors solar power lights	lockable doors	shelter 1 bathroom for every 250 people	shelter heaters	bathroom running water electricity dining area	shelter heaters shared bathroom electricity running water
shared kitchen shared bathroom shared toilet	shared kitchen shared bathroom shared toilet	not available	shared kitchen shared bathroom running water	kitchen	dining room

* the statistics for this typology are based on average numbers and examples. So the statistics can differ from other examples.
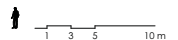
1 3 5   10 m

T3. Shelter in Dabaab Kenya, made from found materials - Zuydam, S. (2011)

DIY

After a disaster has happened or a war has broken out, people can lose their houses, or flee the area. In these cases, people make their shelters from materials that they find and things they take with them. These DIY shelters are the first type of refugee shelters. Because they are built with whatever the people have gathered, there is not a base form. Living in these kinds of tents is harsh because of the poor quality.

T4. Improvised refugee shelter - Robinson, P. (year unknown)

IDP camps

If there is a civil war going on and people flee to a camp in their country, these people aren't characterised as refugees. They will be characterised as IDP's. For this reason, the UNCHR has difficulties in running these kind of camps. [2] The inhabitants are forced to build their shelters and provide their own facilities, as can be seen in the IDP camp Kutum. When there still isn't any sign of improvement people will improve their shelter with cement blocks.

T5. Cement block shelter - Morrow, D. (2014)

T6. UNHCR tent - Court, C. (2015)

UNHCR tent

After an area is designated as a refugee camp, the UNHCR provides the refugees with standard tents. These tents come in different forms and sizes but what they all have in common is that they are just a temporary shelter for about 3 to 6 months. All the activities such as cooking and showering can be done in the shared buildings. You often see that the inhabitants expand their tent with extra sheets of canvas.

T7. Caravan shelter - Sjholsinger (2013)

Caravan shelter

Due to the harsh weather conditions in the desert, the provided UNHCR tents are not durable. So in some of the camps, they replace broken tents with more durable shelters such as this caravan shelter. For the activities such as showering, they have to go to the shared buildings. Besides that, it is a more durable option with solid walls which increase the thermal mass; it can also be closed with a lock. This type prevents accidents like stealing and sexual assaults.

[2] **Typologies - Al-Najjar, D., Shata, J., et al. (2015)**

Building kit

Along with the caravan shelter type you also have the building kits. Because of their minimum transport dimensions, they are cheaper to transport from western countries, where they are often produced. This type has the advantages of both the tent as well as the solid types. The only thing that they lack, if compared to the solid models, is the thermal mass.

T8. IKEA shelter - Schrader, J. (2013)

Foldable tent

A new development in shelter design is the foldable tent. This typology has, as the building kits, minimum transport dimensions, but is meant to be easier to set up. The design of this typology can differ from type to type, but they all contain some folding principle.

T9. Foldable tent - Laylin, T. (2014)

Provided Shelters

Governmental finances

T10. A barrack in Valcartier militairy base - Boissinot, J. (2015)

Barracks

When the refugees leavetheir country searching for asylum in Western countries like Italy, United-States or Canada, they are housed in refugee camps. Some camps consist of barracks. They have to share some facilities, such as the bathroom with other families. Sometimes they even have to share the bedroom with other families. This large housing typology can handle a large group efficiently.

T11. Shipping containers in Calais - Tessier B. (2016)

Shipping containers

Another housing type which has the same effectiveness as the barracks are the shipping containers. Each container can hold one or more families comfortably. The difference between the barracks in Valcartier and Calais is that the showering and kitchen facilities in Calais are in a separate building. [3]

[3] Migrant shelter made of shipping containers opens in France's Calais - Blamont, M. (2016)

Abandoned houses

Abandoned houses are a type of shelter which provides more privacy to people. These houses have their bathroom, bedroom, etc. An example where this is executed on a large scale is the refugee camp in Cara di Mineo. In this abandoned former residential area for US-soldiers, nowadays live more than 4000 people [4]. Besides the excellent facilities, this type is characterised by the ratio of individuals versus surface.

[4] Types - Al-Najjar, D., Shata, J., et al. (2015)

T12. Refugee camp Cara die Mineo - Capurso, F. (2015)
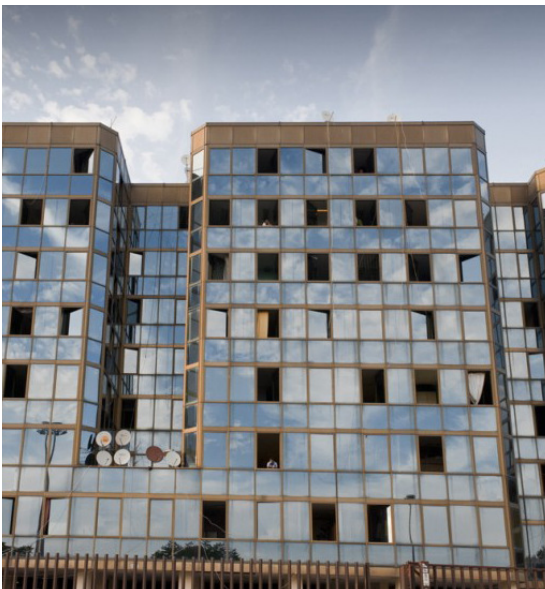
Empty offices

As soon as refugees get their residence permit they have to leave the refugee camp. Because it's hard to find a home when they do not have a job or do not speak the language, they often start living in empty offices like in Pallazzo Salam. This typology of refugee shelter often has poor sanitary and kitchen facilities because the buildings were never meant for living.

T13. Shipping containers in Calais - Intrisano, M. (2012)

Conclusion

T14. By refugees improved shelters - Terry, C. (2014)

T15. Another building kit type of shelter - Karmod (2013)

Different typologies with the same function

Refugee shelters can be divided into three types: self-made shelters, tents + self-made shelters, and the provided houses.

The self-made shelters are the kind that refugees build themselves, this type is often not durable and uncomfortable as a living. The second type is the one with tents that are provided by the NGO's. This type is more comfortable than the self-made one, but it still is of poor quality. To improve this, refugees often develop these tents with self-made canopies, extensions, etc.

If refugees leave their homeland and apply for asylum in western countries they are placed into provided shelters. These shelters are most often solid buildings such as barracks, houses and shipping containers.

T16. Refugee camp Heumensoord, Netherlands - Verschooten, G. (2015)

World War I

Definition

World War One represents the million of Belgian refugees who fled to the Netherlands in the first months of the war. How did the Dutch Government treat these refugees, and what are the traces that we can still see today?

40.000
Military
Refugees

960.000
Civilian
Refugees

Nunspeet

Ede

Uden

To the UK

over 1 million people
escape to the
Netherlands

GERMAN
INVASION
start 4 August 1914
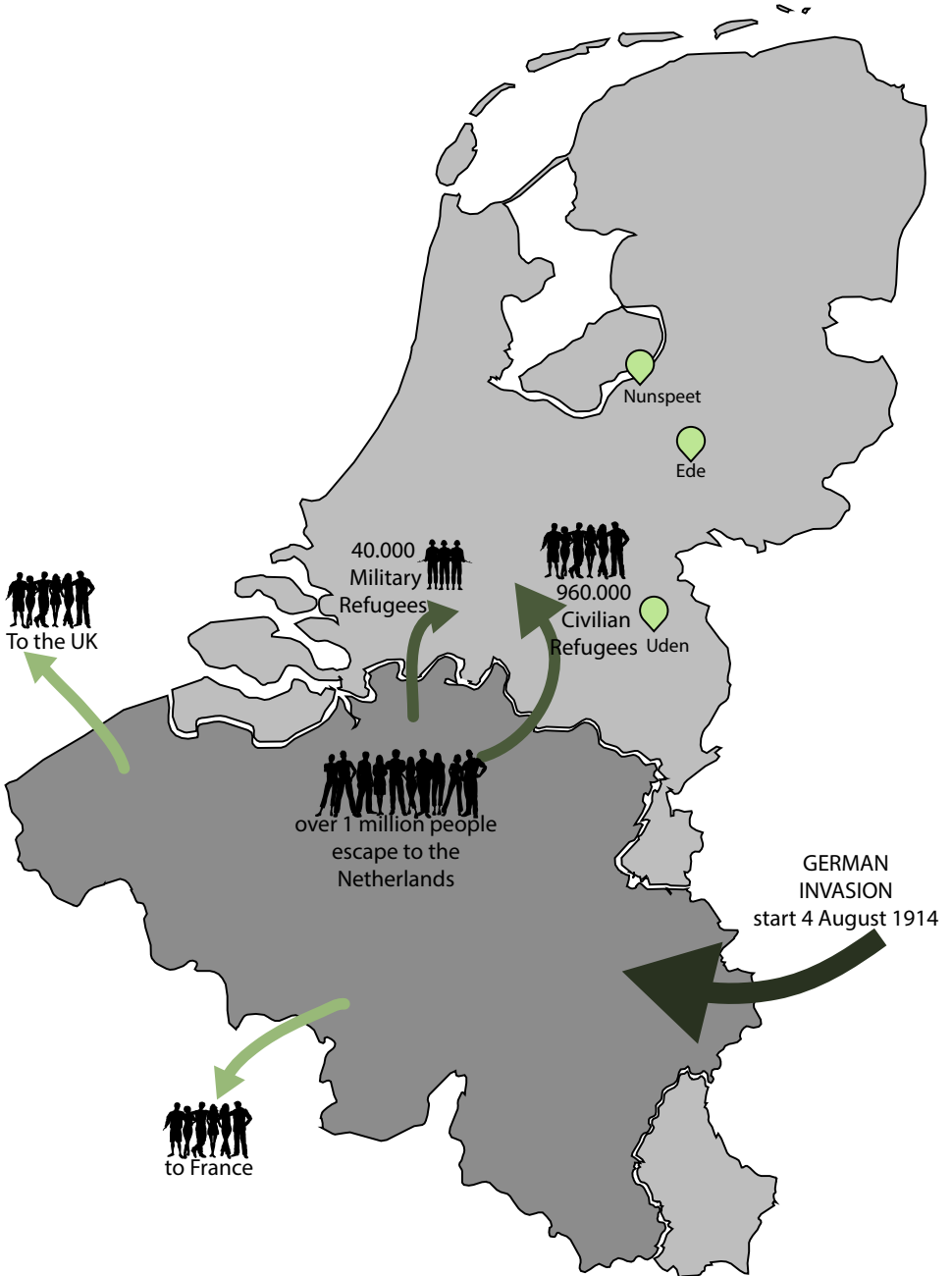
to France

W2. Belgian Refugees to the Netherlands - Bekken (2016)

Germany invaded Belgium at the start of the First World War on the 4th of August 1914. From then on, thousands of Belgians fled to the Netherlands, France and the UK. Focusing on the Netherlands, the Belgian refugees found aid in the Dutch committee in support of Belgian and other victims. This court was later called the Amsterdam Committee. It started as a private initiative but, because of the growing size, it turned into a project that was coordinated by the Central Committee. The number of refugees increased when they got informed of the reports of acts of cruelty by German troops. The largest number of refugees was reached after the besieging and fall of Antwerp on the 10th of October. The number of refugees was then estimated at a million people, of which over 40 000 were military refugees.

The civilian refugees were spread out over the country and handed over to the care of the Provincial Refugee Committees. The soldiers were, if possible, disarmed and interned by law. On the 12th of October the negotiations between the Belgian Government and the German occupiers, for the return of civilian refugees started. The Dutch government did not interfere in these negotiations but with gentle insistence tried to return as many refugees to Belgium. In November 1914 still, 323 600 refugees were registered, and in May 1915 there were only 105 000 refugees. This number had approximately remained the same in the Netherlands during the war. [1]

The Dutch Government were of the opinion that the accommodation of refugees should be a private initiative, but they were afraid of riots and manifestations against the Germans. Possibly 'unwanted' foreigners could be turned out of the country, based on the immigration law of 1849, so they chose to house these people in guarded camps. After the closure of these camps in June 1915, the 'criminal' inhabitants were transferred to a department of Camp Nunspeet that was specially guarded and fenced off with barbed wire.

The construction of the permanent camp Nunspeet was a start of the solution to accommodate Belgians that could not be privately housed. Temporary camps were established at: Bergen op Zoom, Roosendaal, Tilburg, Hontenisse, Baarle Nassau, Oldebroek, Amsterdam, Scheveningen and Veenhuizen. Most of these camps were transferred to Camp Nunspeet.

World War I

The accommodation of refugees in these camps started from mid-November 1914. Rich Belgians and the so-called Pauvres Honteux (silently poor), were allowed to settle outside of these places. The poor refugees were divided into three categories.

A Dangerous or unwanted individuals
B Less unwanted individuals
C Respectably needy individuals

These groups were housed in three main camps in Nunspeet, Ede and Uden. The basics of these camps were the same, but each had its own target group.

Camp Nunspeet was designed for the first two categories, 'the Scum of the earth', and was able to house 13.000 people. Camp Ede was meant to set an example and was designed for category C. This camp could accommodate 10.000 people. After it closed in 1917, the remaining inhabitants were taken to Camp Nunspeet. Camp Uden housed 10.000 refugees from categories B and C. In Gouda a place of refuge was built by the Refugee Committee to house 2.000 refugees.

Each of these three camps consisted of barracks, with a living room and bedrooms, with the addition of other facilities that were present in any other village: church, post office, infirmary, shop, etc.

In March 1915 the Dutch government received a gift of Hfl 325,000 from Denmark (the so-called Danish fund). With this money, workplaces were established in Gouda, Ede and Uden, where the mobile abodes could be put together. At the end of November 1918 preparations were made for the repatriation of the refugees still present in the Netherlands. In January and February 1919 the inhabitants returned to Belgium in special trains paid for by the Dutch government.[1]
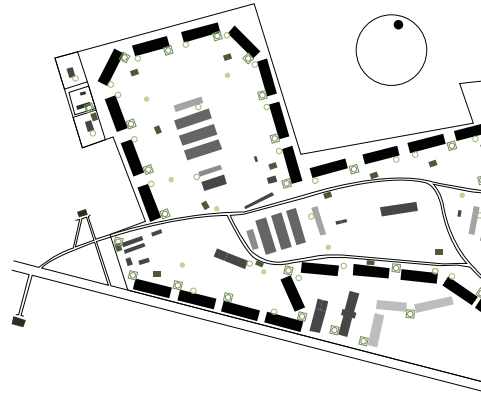
W3. Layout of camp Nunspeet - Bekken (2016)

[1] Internment of military refugees in the Netherlands 1914 - 1918 - Wielinga (2016)

World War I

Camp Nunspeet

Local citizens and Belgian refugees took part in the construction of Camp Nunspeet. It was constructed in 24 days. This camp was divided into four areas, which consisted of several sleeping cabins, dinner cabins, a kitchen, a day care and wash cabins. Each cabin was named after famous Dutch or Belgian people. In the first area, they were named after poets. In the second area, they were named after members of the Belgian Royal family or painters. In the third area, they were named after members of the Dutch Royal family and Marine heroes. In the last area, they were named after members of the Dutch government. Even the dining cabins were named after members of the Dutch Government or governor-general members of the former islands in the Dutch Indies.

There were other facilities in the camp such as a church, medical service, a post office and some schools. This camp maintained it own electricity network and water supply. Sending people to prison was a punishment for bad behaviour. The entire perimeter of the camp was lined with barbed wire. A hospital was built outside this perimeter. The commander of this camp was a former Lieutenant of the Dutch army. While the camp had been constructed to host 13.000 people, the actual amount of refugees that lived there never surpassed 6.530. With the epidemic of 1915, more than 250 children died. When Camp Ede was closed in 1917, the inhabitants of the camp were transferred to Camp Nunspeet. Camp Nunspeet was closed in 1919 and has been demolished.
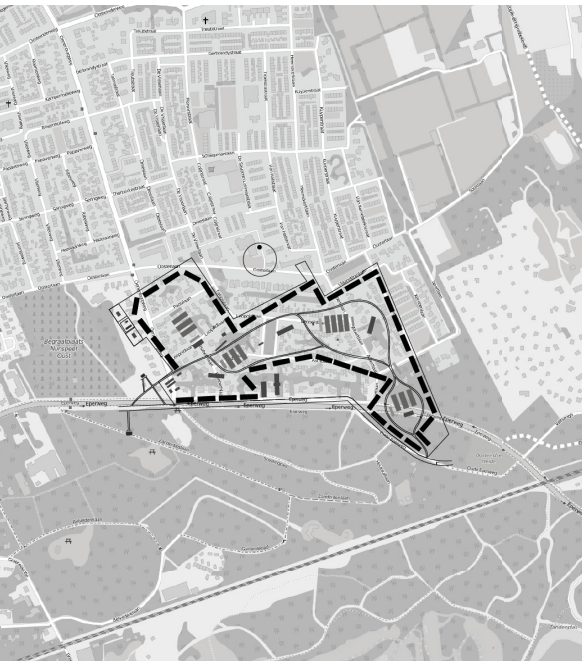
The camp today

In the late sixties of the previous century, a new neighbourhood was built in this location. The former camp is remembered by their street names, named after members of the Belgian Royal family. This area was called by the public

W4. Layout of the camp on current situation - Bekken (2016)

World War I

"The Belgian camp". On the crossing of the Fabiolalaan and Leopoldlaan, a monumental plate is honouring the former Belgian Refugee camp (Image W4).

W5. layout of camp Ede - Bekken (2016)

Camp Ede

The construction of this camp started in late 1914 and could welcome its first inhabitants in February 1915. Between 1915 and 1918 a total of 4.100 Belgian Refugees were housed there. The camp was built as a model, where the newest modern technologies could be put to use, like an electrical power plant and a heating installation. It was built for the members of the higher classes of Belgian refugees. The layout of this camp reminds of a Roman military base, with two main roads crossing in the middle. These roads divided the camp into four quarters, each with its function. One quarter had all the functional buildings, and the others hosted the inhabitants. The other parts consisted mainly of dining cabins, sleeping cabins, a community centre, latrines and a child daycare.

Camp Ede today

After the war, most of the Belgian refugees returned to their home country, but some of them stayed in the area of Ede. The moorland was given back to nature, and that's what it still is today. The location of the former camp on the current situation is shown in the image W6

Camp Uden

Camp Uden could be better considered a settlement rather than a camp. The inhabitants could be identified as citizens of a village with a high level of Belgian characteristics. This place used to have a major, but a member of
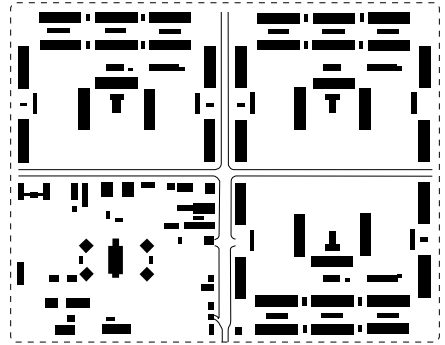
W6. Layout of the camp on current situation - Bekken (2016)

World War I

W7. layout of camp Uden, 1915 - Bekken (2016)

W8. layout of camp Uden, 1918 - Bekken (2016)

the Dutch Government executed the camp control. Together with a staff of civil servants, he was in charge of the organisation of this camp. In this camp the currency was in the form of vouchers. The total inhabitants of this settlement were more than 16.000 people.

Camp Uden today

Nothing has remained of all the ateliers, workshops and drama activities of the typical Belgian culture, which characterized those four years. The only things that still exist are the contours of the Belgian velodrome. Many initiatives are being considered, but the local community does not feel like bringing back this part of Belgian history. The location of this camp is displayed in the image W.10, where the basis of this camp is layered on the existing map.

[3] http://www.vluchtoord-ede.nl/public_html/Locatie.html
[4] http://www.vluchtoord-ede.nl/public_html/Geschiedenis.html
[5] http://www.vluchtoord-uden.nl/Home.html

W9. layout camp on current situation - Bekken (2016)

Belgian refugees per capita in different towns

Refugees / **Inhabitants**

Roosendaal — 50000 / 16716
Putte — 4000 / 1298
Bergen op Zoom — 50000 / 15528
Noorbeek — 1295 / 745
Maastricht — 14000 / 37483
Eysden — 1600 / 2710
Vlissingen — 8160 / 21363
Hulst — 3000 / 3286
Hontenisse — 3000 / 5107
Aardenburg — 2030 / 2036
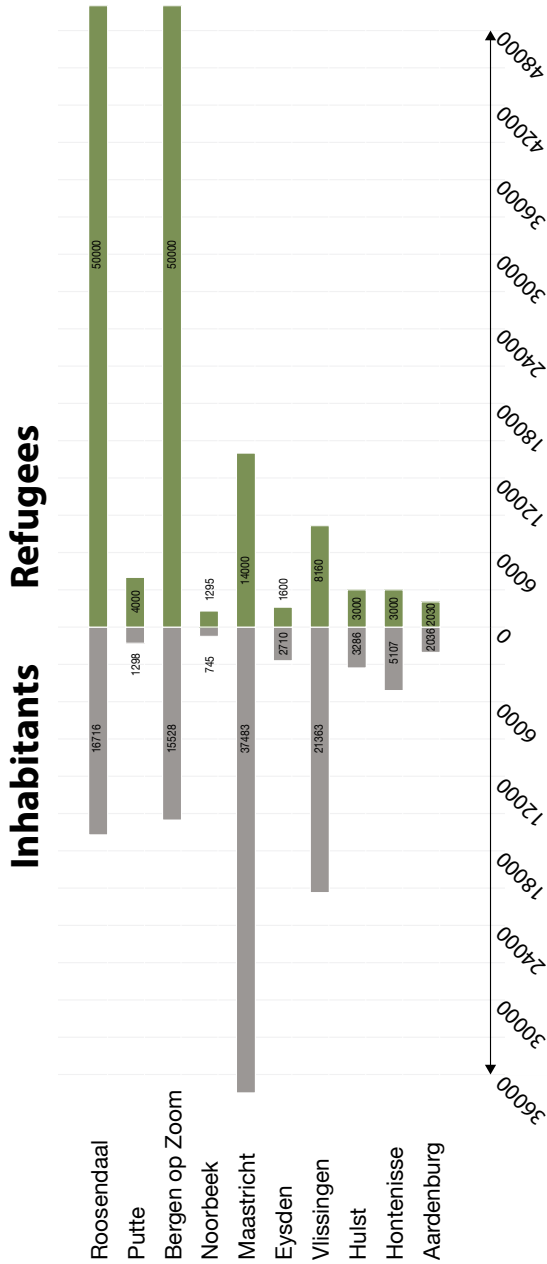
W10. Refugees entered different municipality - Bekken, B. (2016)

	Inhabitant	Refugee
Roosendaal		
Putte		
Bergen op Zoom		
Noorbeek		
Maastricht		
Eysden		
Vlissingen		
Hulst		
Hontenisse		
Aardenburg		

W11. Percentage of Refugee per 1 inhabitant - Bekken, B. (2016)

Refugee Care or Immigration Policy

The Netherlands has been known for centuries for its hospitality towards refugees. Take for example the Portuguese Jewish and several South-inhabitants in 1580, the dissenters of England, and exiled Huguenots. This Liberal approach changed after the First World War, according to records from Hannah Arendt. Refugees became a huge problem because of their mass and international happening. This article is about, how the Dutch Government treated the Belgian Refugees during the World War I period, from 1914-1918. At the start of the war, a few Belgian refugees crossed the border and they could be accepted on private initiative. After the fall of Antwerp, the mass migration had begun. This movement concerned the Dutch Government, and they took control. They provided a spreading of refugees over the entire country and made records about the number each province maintained. The difficulties in policy are described by temporary and definite policy. [6]

[6] Vluchtelingenzorg of Vreemdelingenbeleid - Heuvel-Strasser (1986)

X

XXL

X1. Syrian refugees in large camps - Ahmed, S (2015)

Definition

A view into the world biggest refugee camps. From Kanya to Jordan and from Somalia to Lebanon. This chapter contains an overview of the ten largest camps in the world. The top three are explored in detail regarding demographic characteristics.
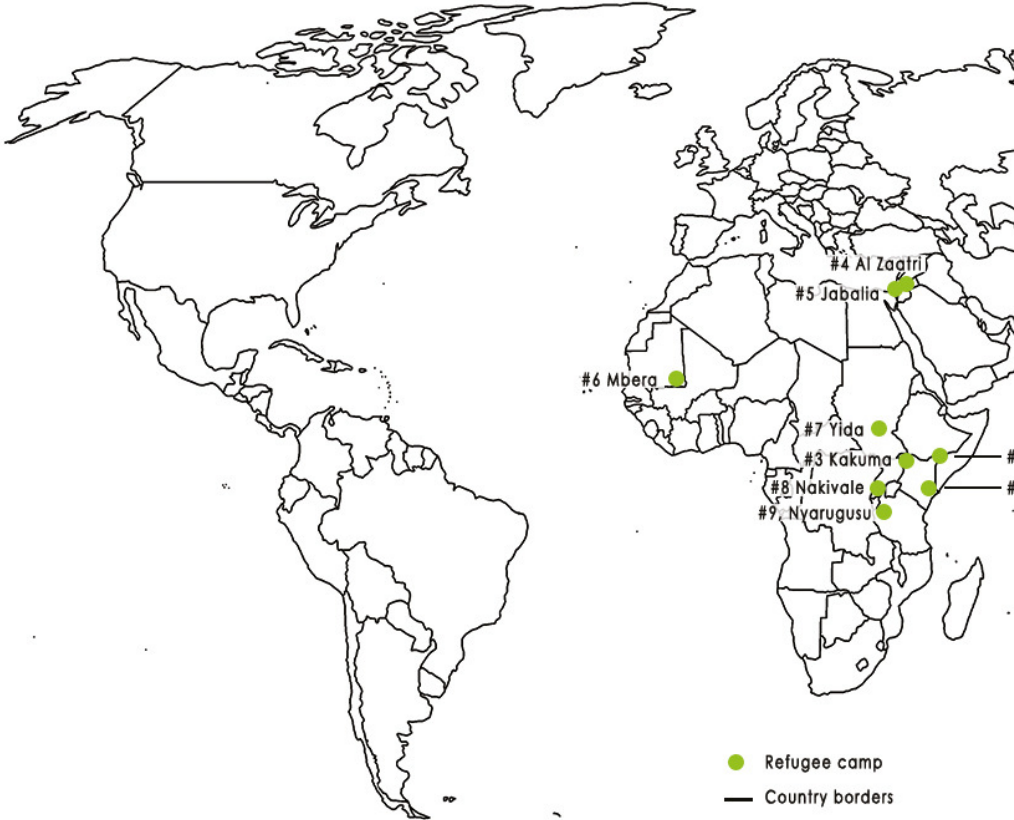
X2. 10 biggest camps in the world - Koenhen (2016)
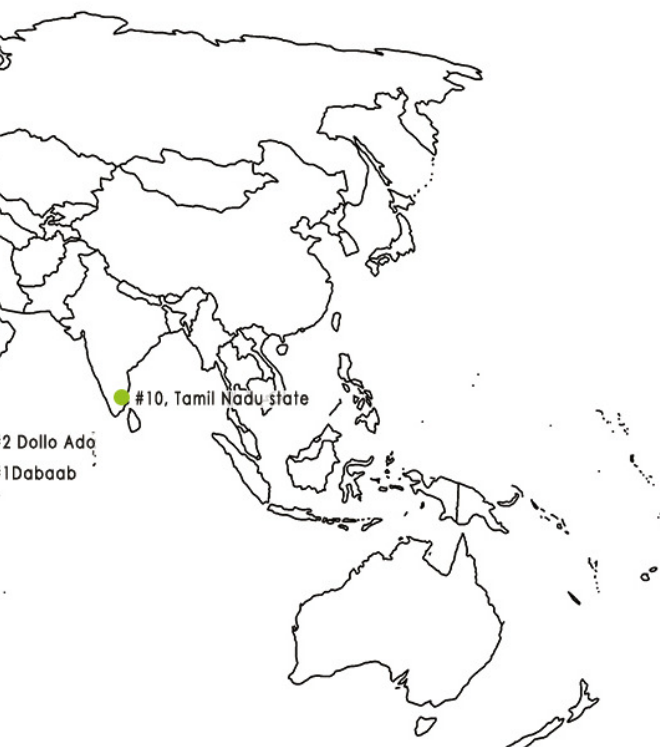
Top 10

1. Dabaab, Kenya
    402.361 individuals

2. Dollo Ado, Ethiopia
    198.462 individuals

3. Kakuma, Kenya
    124.814 individuals

4. Al Zaatar, Jordan
    122.723 individuals

5. Jabalia, Gaza strip
    110.000 individuals

6. Mbera, Maurantina
    75.261 individuals

7. Yida, South Sudan
    70.095 individuals

8. Nakivale, Uganda
    68.996 individuals

9. Nyarugusu, Tanzania
    68.197 individuals

10. Tamil Nadu state, India
    66.770 individuals

[1] Top 10 refugee camps - R. Koenhen
(2016)

#10, Tamil Nadu state

2 Dollo Ado

1Dabaab

1 Dadaab, Kenya

Dadaab

The largest refugee camp in the world presents an agglomeration of five interlinked camps. With more than 400.000 inhabitants, this refugee camp has a higher population than most cities. The camp dates from 1992 and shelters refugees from the neighbouring countries, especially Somalia. Typically Dadaab's inhabitants live in UNHCR tents, made of plastic sheeting. Additionally, the UNHCR provides schools, medical care and other necessities.

[2] Dadaab - Wikipedia (2015)

X3. Aerial image of Dadaab Refugee camp, Kenya - Mukoya (2015)

Female　　　　　**Male**
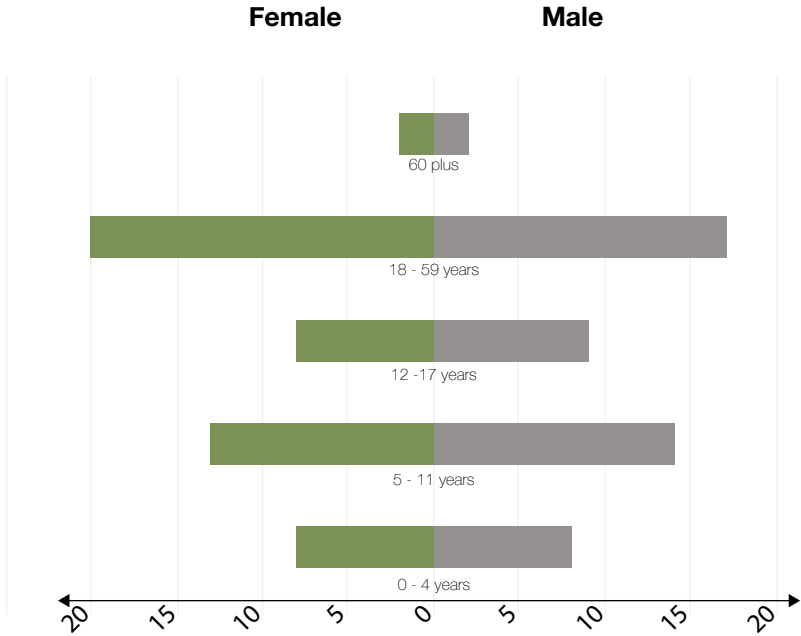
X4. Demographics (age and gender), Dadaab, Kenya - Bekken (2016)

Dadaab	
totaal area	Individuals per square kilometer per 1000 individuals
49,2 Km^2	
totaal area	
331,404	

X5. Population Denisity, Dadaab, Kenya - Bekken (2016)

2 Dolla Ado, Ethiopia
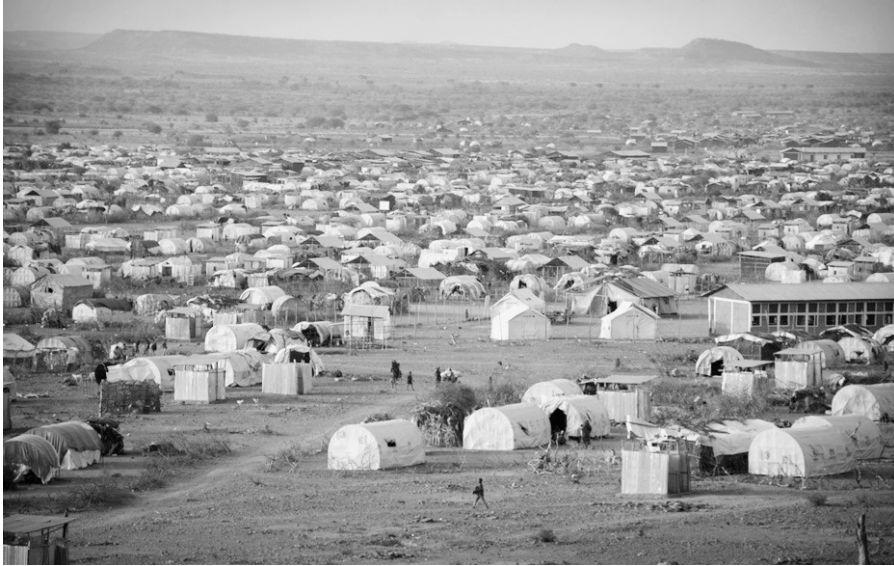
X6. Dolla Ado refugee camp, Ethiopia - Allan (2015)

Dolla Ado

this camp hosts 200.000 Inhabitants, increasing
at a rate of 500 people per week. It is one of the
fastest growing camps worldwide, and a runner-
up regarding population. About 35 percent of the
inhabitants of Dollo Ado are below the age of 18, and
53 percent of the population is female. As Dabaad,
Dolla Ado is formed by an agglomeration of camps.
Initially, Dollo Ado also arose to provide shelter
for Somalian refugees fleeing from their country,
because of the war that has lasted for years.

[3] Somalia displacement crisis -
UNHCR (2015)

Female   Male

60 plus

18 - 59 years

12 -17 years

5 - 11 years

0 - 4 years

20   15   10   5   0   5   10   15   20
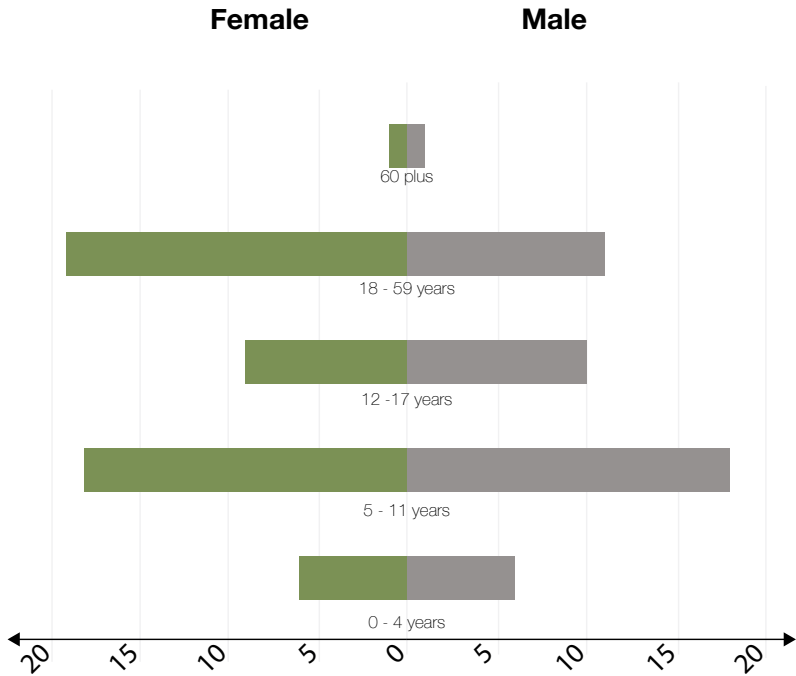
X7. Demographics (age and gender), Dolla Ado, Ethiopia - Bekken (2016)

Dollo Ado	
totaal area	Individuals per square kilometer
	per 1000 individuals
Unknown Km²	
totaal area	
211,364	

X8 - Population Denisity, Dolla Ado - Bekken (2016)

3 Kakuma, Kenya

X9. Kakuma refugee camp, Kenya - Achayo (2015)

Kakuma

124.814 Somalian refugees are sheltered in Kakuma,
a camp set up in 1991, located in the Northern part of
Kenya. The majority of refugees are from Sudan and
Somalia. The camp hosts also refugees from Ethiopia,
D. R. Congo, Burundi, Rwanda, Eritrea, and Uganda.
Numerous people in Camp Kakuma are long-term
refugees, living in hopelessness and desperation.

[4] Dadaab -Wikipedia (2015)

Female　　　　　　**Male**
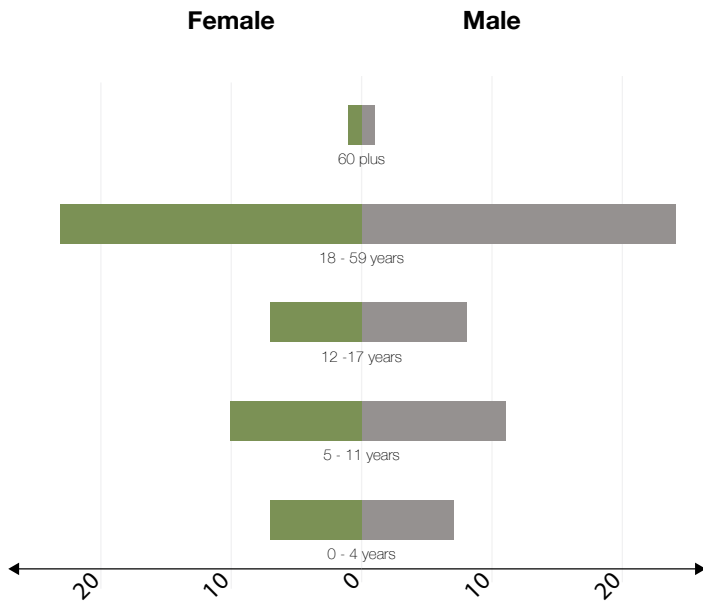
X10. Demographics (age and gender), - Bekken (2016)

Kakuma	
totaal area	Individuals per square kilometer per 1000 individuals
25,89 Km^2	
Inhabitants	
55,050	

X11. Population Denisity, - Bekken (2016)

X12 - Dadaab Refugee camp - Atom (2012)

Too crowded

The population of some camps surpasses the number of inhabitants which some towns would aim at having. The end of displacement is not yet in sight, considering the on-going problems throughout the globe. It may be concluded that the largest camps of the world are located in Africa. Many of these camps are the result of wars and conflicts. Kenya can be viewed as the country that hosts the highest number of refugees from neighbouring territories. The relatively good conditions and the prosperous situation in Kenya offer a suitable retreat for many. The refugee's influx is so large in some countries, including Kenya, that in some cases result in a necessity for measures to limit it. In the worst cases, sending people away from the camps is the only way to deal with overpopulation.

y

Yemen

Definition

Yemen is the Arabic nation, inhabiting a territory near the Gulf of Aden. Since 2011, a political crisis arose into a conflict between different groups in Yemen. The former Head of the state was forced to flee, and a minority group claimed the position. Its former leader now operates from a secret location. Additionally, terrorist groups, such as Al-Qaeda, work from Yemeni ground. Yemen contains numerous internally displaced persons, with one of its IDP camps suffering an air strike in March 2015. Despite this chaos, Yemen is host to several valuable heritage sites, enlisted by the UNESCO foundation.

Y2. Map of yemen - Bekken (2016)

OMAN

Al Maharah

Type of population	Origin	Number of refugees
Refugees	Ethiopia	6,800
	Iraq	3,100
	Somalia	238,000
	Various	2,200
Asylum- seekers	Eritrea	700
	Ethiopia	7,000
	Various	600
Total		258,400
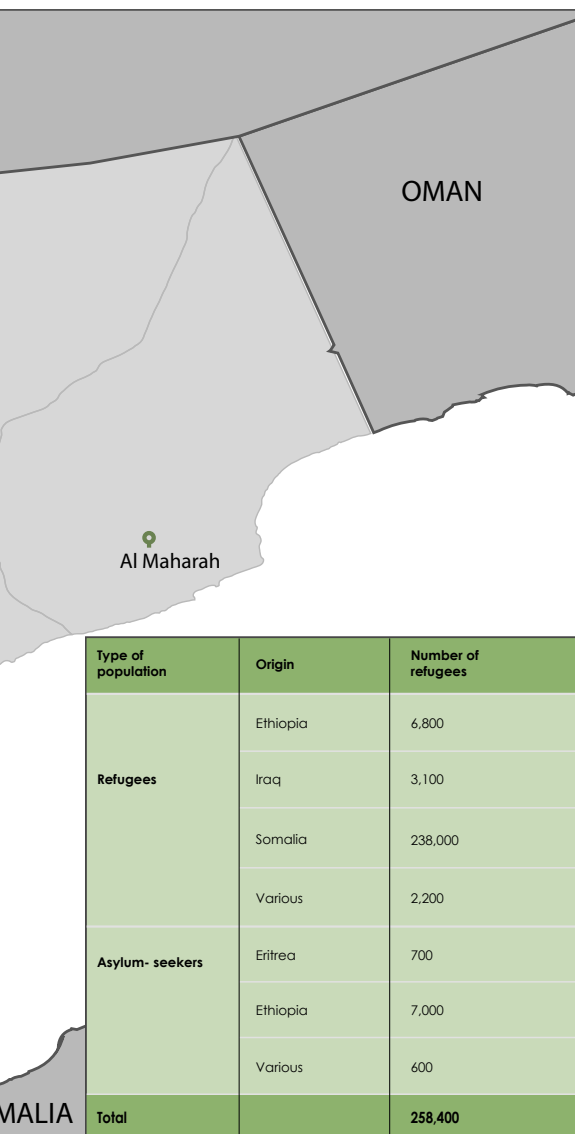
Y3. Origen of Refugees - Bekken (2016)

MALIA

Yemen

Since 2011, the Government of Yemen has been challenged by political instability and insecurity which have further weakened the country's social and economic situation. Yemen is a transit country of mixed migration flows, including asylum-seekers. Yemen hosts approximately 246 000 registered refugees, of whom 95 percent are Somalian. The majority of asylum-seekers are from Ethiopia, representing more than three-quarters of new arrivals in the first half of 2014. Most Syrians in Yemen remain unregistered, while some 2 000 did approach the UNHCR before June 2014. As of August 2014, Yemen has granted temporary protection to Syrians, allowing them to access services available to other refugees. While the number of inhabitants internally displaced in Yemen fell by 20 per cent in 2013, the number increased significantly again in 2014, more than 334 000 people were registered as internally displaced. Despite the challenges, Yemen shows exceptional hospitality towards refugees. They continue to provide land and security for the refugee camp of Kharaz, as well as access for refugees to the public health and education systems in urban areas.

UNHCR Strategy

The UNHCR acts in Yemen to protect refugees and asylum-seekers, by strengthening status determination activities and legal counselling. Detention monitoring and advocacy is prioritised. It has been attempted to seek durable solutions for refugees, including resettlement for individuals who face no alternative, and the voluntary repatriation of Somali refugees. Social and economic integration is to be pursued in the health and education activities, as well as the promotion of opportunities for self-reliance and livelihood.[1]

[1] UNHCR Global Appeal 2015 update - UNHCR (2015)
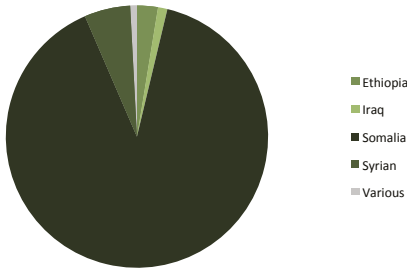
Y4. Distribution of Refugees in Al Mazraq - Bekken (2016)

Ethiopia
Iraq
Somalia
Syrian
Various

Al Mazraq

Both camps are located at about 30 km Northeast of the town of Haradh, in the Northern Governorate of Hajjah. It hosts Yemeni displaced by the conflict in neighbouring Saada Governorate. Mazraq I hosts 8.906 people, while Mazraq III gives shelter to 3.440 people, as of 31 August 2010. The first camp was built on 20 August 2009 and the third on the 27 January 2010. Both camps are a UNHCR initiative, implemented by their local partner - Islamic Relief Yemen (Camp managing partner). Further contributors are the Yemeni Government, UN Children's Fund (UNICEF), World Food Programme (WFP), Save the Children, Oxfam, Médecins Sans Frontières-Spain and local NGOs. The UNHCR, as the leading agency, supports camp management, shelter, non-food items, and protection. It continues to face a funding shortfall of around 44 percent of the total amount required for 2010. In the words of the deputy representative in Yemen, Nabil Othman "In view of funding shortfalls, it would be difficult to respond to the needs of IDPs, Which include some self-reliance activities to sustain and support their livelihoods, the replenishment of shelter and NFIs, summarization of tents, and overhauling the camp to prevent floods,". Further problems include the lack of privacy for families, and especially women, or the inadequate maintenance of camp facilities and the need for additional support of people with specific needs. Lastly, there is a need for capacity-building of governmental institutions to enable them to assume their responsibilities. Getting aid to those who need it the most is a complicated situation in Yemen, especially since the Saudi Arabia-led coalition began a campaign of air strikes in March 2015 in a bid to oust the Houthis from power. This attack has cost the lives of over 5,000 people, including at least 2,300 civilians. In the midst of this chaos, Al-Qaede in the Arabian Peninsula (AQAP) took control of Mukalla from the government forces in April 2016. The World Health Organization had prepared for a cyclone by distributing trauma kits in Hadramaut, as well as petrol for ambulances and diesel to hospitals that rely on generators for their power supply. Dr Ali Sereyah, head of the Ministry of Public Health and Population Emergency Department, asserted that the government had at least four emergency teams ready to fly into affected areas. However, it has not yet received clearance to intervene. All aid convoys and air traffic must be coordinated with the Saudi Arabia-led coalition, so as to avoid unintended civilian casualties.[2]

[2] IDP CAMP al Mazraq - IRIN news (2010)

Y5. Photo of Al mazraq refugee camp - twitter @jamilahanan (30 mar 2015)

Facts [1]

Inhabitants	26,052,966 (2014 est.)
Surface	528,000 km²
Capital	Sana'a
Head of state	Abd. Rabbah Mansur Hadi (2012)
Conflict	Al-Qaeda of the Arabian Pen-insula (AQAP), Houthi-rebels
Refugees	267,173 [2]
IPD's	2,509,062 [2]

Y6. Air strike hit refugee camp - The Times, Tomlinson (2015)
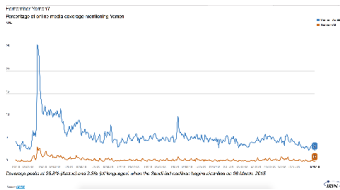
Y7. Remember Yemen, IRIN Slemrod (2016)

Houthi-rebels and AQAP

Yemen had a challenging year in 2015. The country is pushed 'to the edge of civil war', according to the UNs Special adviser's explanation of the recent conflict. The main dispute is between the Presidential Army and the so-called Houthis, operating in the North, attempting to force President Al-Hadi to flee the country in February 2015. Both are opposed by Al-Qaeda in the Arabian Peninsula (AQAP), which has staged numerous deadly attacks and claimed responsibility for the attack on Charlie Hebdo in France. A coalition led by Saudi Arabia responded to a request by Al-Hadi to intervene by launching air strikes on Houthi targets. The U.N. Refugee Camp Al Mazraq was hit by one of these attacks, resulting in approximately 45 deaths and many wounded. The coalition, led by Saudi Arabia, is supplied with British missiles, despite not having UN's support. The rebellion group Houthi as mentioned earlier is also known as Ansar Allah (Partisans of God), who adhere to a branch of Shia Islam known as Zaidism. Zaidis accounted for one-third of the population and ruled North Yemen under a system known as the Imamate for almost 1 000 years until 1962. The Houthis take their name from Hussein Badr al-Din al-Houthi, who led the group's first uprising in 2004 in an attempt to acquire greater autonomy for their heartland of Saada province, and also to protect Zaidi religious and cultural traditions from the perceived encroachment by Sunni Islamists. [4]

Media

US and UK foreign policy have been sharing intelligence with Saudi Arabia for years, considering the Kingdom a stabilising force in the region. With the Houthi attacking its borders, and Saudi Arabia raising the threat of Iranian influence, the West is unlikely to rein in its allies. As for global media, Yemen presents much less of interest, than Syria or Iraq.

[1] UNHCR Global Appeal 2015 - UNHCR (2015)

[3] Facts and Figures - Infoplease.com (2015)

[4] Yemen: Suicide blasts kill dozens in Sanaa and Hadramawt - BBC NEWS (2016)

Y9. Yemen Situation - UNHCR (2016)

Y8. Controlled area by different parties - Bekken (2016)

Heritage

UNESCO's World Heritage Committee recommended Yemen concerning four topics on the World Heritage list, these are both architectural and natural. UNESCO has explicitly specified why these sites were selected and what needs to be done to preserve them.

Historic town of Zabid

Due to its domestic and military architecture and its public program, Zabid makes an outstanding archaeological and historical site. It was the capital of Yemen during the 13th and 15th century. It is located in the Tehama area, in the west of Yemen. This circular fortified town with its four surviving gates was already flourishing when Islam was established as the dominant religion in the region during the 7th century. Zabid's first mosque forms its centre. Zabid has one of the highest concentrations of mosques of all Yemeni towns, some 86 in total. The city is an outstanding example of a homogeneous architectural ensemble due to its narrow closed streets, traditional houses and minarets. This group reflects the spatial characteristics of the early years of Islam. Zabid and its Islamic University played a significant role in spreading Islam. [5]

Old city of Sana'a

Sana'a has been inhabited for more than 2.500 years. It was a major centre for the propagation of Islam during the 7th and 8th centuries. The religious and political heritage is visibly indicated by the astounding amount of 103 mosques, 14 hammams, and over 6.000 houses. All of those were built before the 11th century. Within the city, minarets pierce the skyline, and large green busts (gardens) are scattered among the densely packed houses, mosques, bath buildings and caravanserais. Further on, Sana'a is an outstanding example of architectural homogeneity, thus reflecting the spatial characteristics of the early years of Islam. Its multi-storey buildings represent a response to defensive needs, to provide spacious living quarters for the maximum number of residents, within the security of the city walls. These buildings are a perfect example of exceptional craftsmanship in using local materials and techniques. [6]

Walled city of Shibam

The big cluster of sun-dried mud-brick residential towers of the 16th century rises out of the cliff edge of Wadi Hadramaut and has been described as the 'Manhattan' or 'Chicago' of the desert. Its location is characterised by its coincidence with an important trade route for spice and incenses. [7]

Socotra Archipelago

This site, comprised of four islands and two rocky islets is 250 km long and is located in the north-west of the Indian Ocean, near the Gulf of Aden. It is of worldwide importance because of its biodiversity with rich and distinct flora and fauna. [8]

[5] Zabid - http://whc.unesco.org/en/list/611(1993)

[6] Sana'a - http://whc.unesco.org/en/list/385 (1986)

[7] Shibam - http://whc.unesco.org/en/list/192 (1982)

[8] - Socotra Archipelago - http://whc.unesco.org/en/list/1263 (2008)

Z

Za'atari

Definition

Za'atari is an enormous refugee camp in Jordan,
situated East of Mafraq. The camp is gradually
evolving into a permanent settlement.
On March 26 2015, the camp's population
was estimated at 83.000 refugees.[1]

Refugee data

Total people of concern	79.558

Male (50%)		Age		(50%) Female
9.7%		0 - 4		9.2%
11.6%		5 - 11		10.9%
7.4%		12 - 17		7.1%
20.1%		18 - 59		21.2%
1.2%		60 +		1.6%

200k

Jul '13   Jan '14   Jul '14   Jan '15   Jul '15   Jan '16

2014   2015
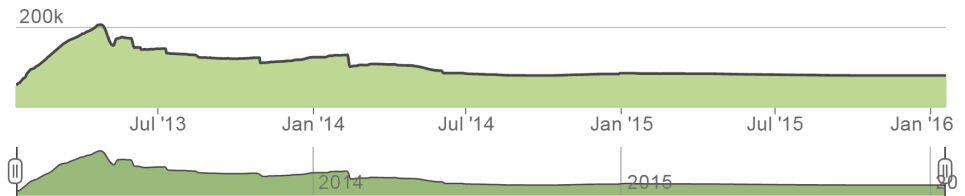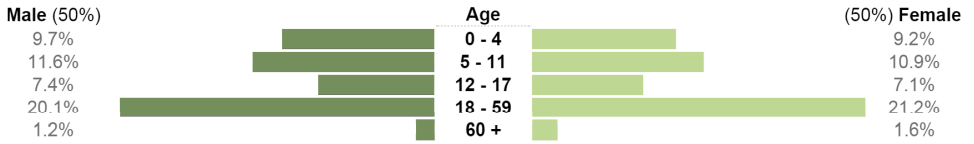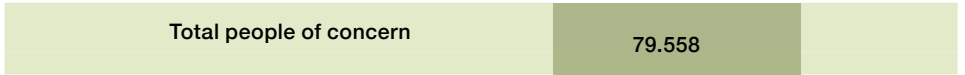
Z1. Demographic data of refugees - UNHCR (2016)

Z2. Urban map of Refugees, Za'atari- Norimitsu Onishi(2012)

Introduction

Za'atari is a refugee camp in Jordan, located 10 km East of Mafraq, which is gradually evolving into a permanent settlement. It was initially founded, on July 28 2012, to host Syrians fleeing the violence of the ongoing civil war that erupted in 2011. On March 26 2015, the camp population was estimated at 83 000 refugees. The temporary settlement was established on 29 July 2012, amid massive inflows of refugees from Syria. Since the opening of the camp in July 2012, the camp population has repeatedly demonstrated.

More than half of the population are children, presenting challenges not only in the providing of schooling and restoring abruptly-halted education in Syria but also in investing for the future. One out of three kids is not attending school. There are also some 9.500 young people in the camp, aged between 19 and 24, who need skills training and, like their older counterparts, also need livelihood opportunities. Some 5,2 percent of these were enrolled in universities in Syria but had to drop out due to the conflict, while just 1,6 per cent successfully graduated.[4]

Initially, there were struggles with providing electricity for lighting as well as mobile phone recharging, which is essential given that it is the most effective way of staying in contact with families back in Syria, and elsewhere. At the time, the primary concern was the lack of sufficient food supplies and good accommodation. It may be asserted that it is due to the challenges faced by the community that the camp has seen an increasing number of reports of crime, including prostitution and drug-dealing.

[2] Syrians at Zaatari camp: 'We can't live here forever'-Stephanie Ott (2015)
[3] Wikipedia-Zaatari refugee camp
[4] UNHR - Jordan's Za'atari refugee camp turns three, challenges for the future of thousands living there

Due to a maximum capacity of 60.000 refugees, in March 2013, a second camp was built 20 kilometres East of Zarqa, in the Marjeeb Al Fhood plains. As a whole, more than 4.015.000 refugees are registered in the region, neighbouring Syria, including some 629 000 in Jordan. [2][3]

Distribution
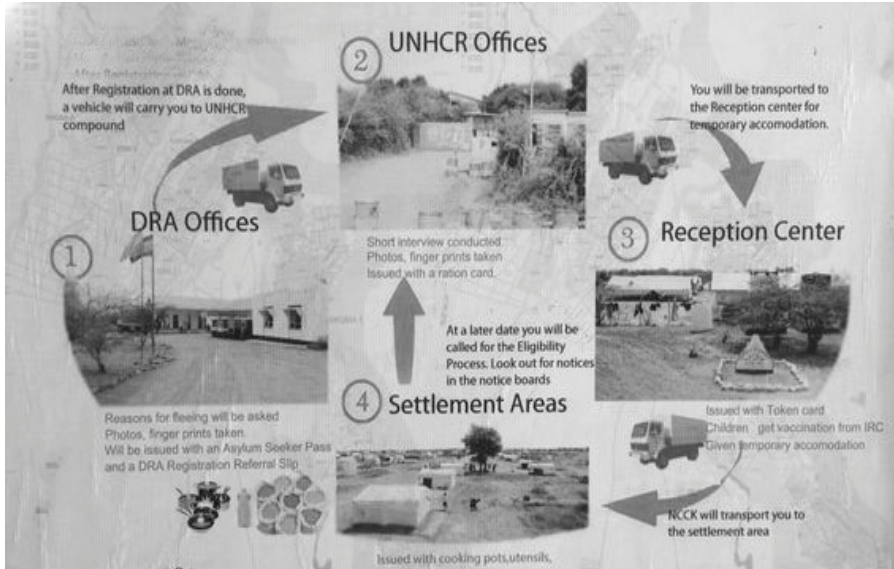
Z3. The distribution of refugees after arrival

Z4. Distribution of water at private connections. All distribution points in Za'atari can be found in the letter O(rganistation).

Throughout Camp Za'atari, there are 6 major distribution points. Those are located in districts 4, 6, 7, 8, 10 and 11, where refugees can collect food and non-food items.
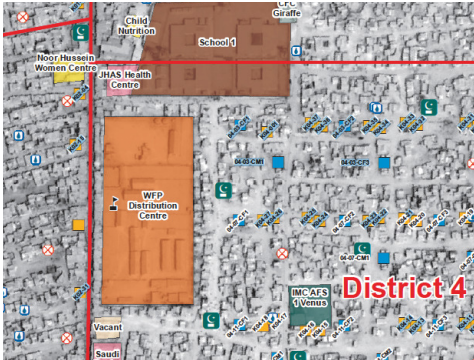
Z5. District 4, december 2015

Z6. District 6, december 2015

Z7. Districts 8 and 9, december 2015

Z8. Districts 10 and 11, december 2015

NGOs

Camp Management:
UNHCR (United Nations High Commissioner for Refugees)

Core Relief Items (CRI):
ACTED (Agency for Technical Co-operation and Development)
IRD (International Relief & Development)
JEN (Japan Emergency NGO)
NRC (Norwegian Refugee Council)
UNHCR (United Nations High Commissioner for Refugees)

Child Protection:
FCA (Finn Church Aid)
IMC (International Medical Corps)
IRC (International Rescue Committee)
Mercy Corps
NHF (Noor Al Hussein Foundation)
UNFPA (United Nations Population Fund)
UNHCR (United Nations High Commissioner for Refugees)
UNICEF (Noor Al Hussein Foundation)

Education:
Children without borders - KnK
FCA (Finn Church Aid)
IRD (International Relief & Development)
Mercy Corps (MC Jordan)

Community Services:
NHF (Noor Al Hussein Foundation)
UNHCR (United Nations High Commissioner for Refugees)

Food Security
SC (Save the Children)
UNHCR (United Nations High Commissioner for Refugees)
WFP (World Food Programme)

Coordination:
UNHCR (United Nations High Commissioner for Refugees)

Gender-Based-Violence
IRC (International Rescue Committee)
NHF (Noor Al Hussein Foundation)
UNFPA (United Nations Population Fund)
UNHCR (United Nations High Commissioner for Refugees)
UNICEF (Noor Al Hussein Foundation)

Health
IMC (International Medical Corps)
IRC (International Rescue Committee)
JHAS (Jordan Health Aid Society)
MdM (Medecins du Monde)
MoH Jordan (Ministry of Health – Jordan)
NHF (Noor Al Hussein Foundation)
SC (Save the Children)
UNHCR (United Nations High Commissioner for Refugees)
UNICEF (United Nations International Children's Emergency Fund)

Mental Health and psychosocial Support
IMC (International Medical Corps)
NHF (Noor Al Hussein Foundation)

Nutrition
UNHCR (UN High Commissioner for Refugees)

Protection
ACTED (Agency for Technical Cooperation and Development)
IMC (International Medical Corps)
IRC (International Rescue Committee)
IRD (International Relief & Development)
LWF (Lutheran World Federation – World service)
MercyCorps
UNFPA (United Nations Population Fund)
UNHCR (UN High Commis-

sioner for Refugees)
UNICEF (UN International Children's Emergency Fund)
UNWOMEN

Registration
UNHCR (United Nations High Commissioner for Refugees)

Reproductive Health
UNFPA (United Nations Population Fund)

Shelter
NRC (Norwegian Refugee Council)
UNHCR (United Nations High Commissioner for Refugees)
UNOPS (United Nations Office for Projects Services)

Water & Sanitation
ACTED (Agency for Technical Cooperation and Development)
JEN (Japan Emergency NGO)
OXFAM
UNHCR (United Nations High Commissioner for Refugees)
UNICEF (Noor Al Hussein Foundation)

[3] http://data.unhcr.org

Education

Disclaimer: The above graph displays total achievements against targets for each indicator. The cumulative totals for this period have been adjusted to prevent double-counting within the same indicator.
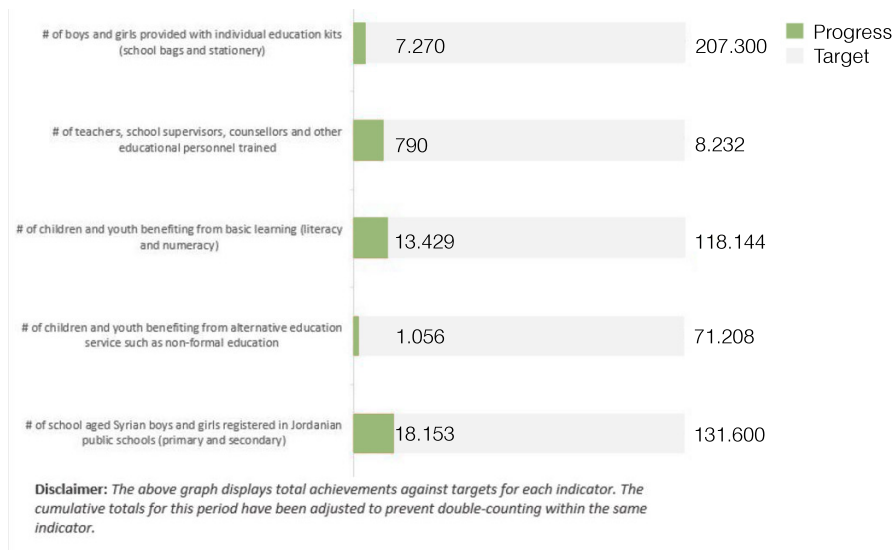
Z9. January 2015 - March 2015

Disclaimer: The above graph displays total achievements against targets for each indicator. The cumulative totals for this period have been adjusted to prevent double-counting within the same indicator.
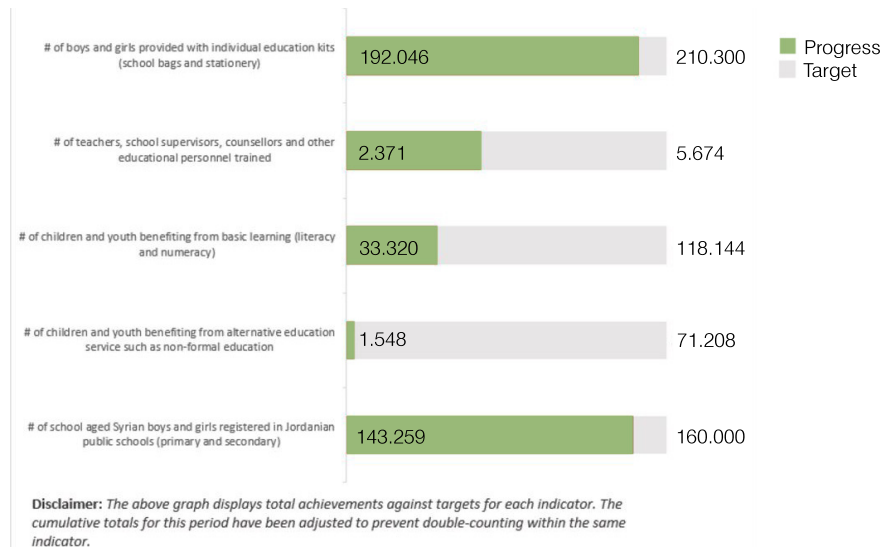
Z10. January 2015 - December 2015

No lost generation

Five years into the conflict in the Syrian Arab Republic, the situation is only becoming more severe, and there are no signs that the conflict is abating. As of November 2015, 10,8 million Syrians were internally displaced or had become refugees, including those over 4,3 million Syrians currently living in Egypt, Iraq, Jordan, Lebanon and Turkey. Children account for more than 51 percent of the refugee population. Jordan is hosting 630.000, and almost 80.000 of them are living Camp Za'atari, where 55,9 percent of the people are under the age of 18.[3]

In 2016, under the inter-agency Regional Refugee and Resilience Plan (3RP), a humanitarian response was combined with efforts to build medium- and long-term resilience of affected individuals, households, communities and institutions in refugee hosting countries. UNICEF is supporting the coordination of the No Lost Generation initiative to scale up and improve the quality of education, child protection and youth/adolescent programming across the five countries, Turkey, Lebanon, Jordan, Iraq and Egypt.

According to the Ministry of Education, 18.780 children are enrolled in school in Camp Za'atari in 2013/2014. However, despite the pre-war figures of 97 percent of first age children and 67 percent of secondary-age children attending school in Syria, the assessment found that 48,4 percent of all school-aged children in Za'atari camp are out-of-school. Furthermore, 38,6 percent of school-aged children in Za'atari camp are currently not attending any form of education (formal or informal), and 28,3 percent have never attended any education in Za'atari camp (September 2014). [4]

More than a year later, in November 2015, 145.458 Syrian students accessed formal education in schools within camp and host community. Children in camps continue to receive education in 32 schools (24 in Za'atari, four in EJC, four in Azraq).

[3] 2016 Humanitarian Action for Children - UNICEF.
[4] Joint Education Needs Assessment - UNICEF.
[5] Childrenofsyria.info

This significant improvement was possible through donations collected by UNICEF, supported by the European Union and the governments of US, Germany (through KfW) and Kuwait. [5]

Security

Z11. Military force in Za'atari camp for security task - Jordan Pix (2014)

Z12. Jordanian security guards enter the Zaatari Refugee camp - Mohammad Hannon (2012)

Security problem in Camp Za'atari

According to the Jordanian government, nearly one-third of the 3 million Syrians, who are now refugees, are in Jordan. This estimation differs from UNHCR's acknowledgement, in September 2014, of 646.000 registered "persons of concern." Za'atari, which opened on July 28 2012, is home to about 100.000 of those refugees.

Over 80 percent of Za'atari residents could be classified as "vulnerable": 56 percent are children (boys and girls under 18), and 25 percent are women aged 18 and older. Some 15 babies are born every day in the camp. Protecting these people in the camp - and their livelihoods - is paramount. While Za'atari has become synonymous with chaos and violence, especially in Jordan, legal complaints and formal reports of assault, including sexual and gender-based violence, are extremely hard to come by, as are exact figures about the number of violent incidents. Despite widespread fear of violence, refugees are not reporting such incidents to the Jordanian police for a variety of reasons, not least of which is that the camp is a newly established conurbation without a durable, formalised security apparatus. Jordanian Lt. Gen. Husayn al-Majali told Julie Bindel of Standpoint, "There are assaults, burglary, and homicides in Za'atari. It's a town. These things happen." The lack of information, combined with statements like this one from a senior member of the formal security apparatus, raise fundamental questions about who is in charge of policing and how the safety of this new community is being safeguarded.

At the official level, the work required to secure, host, house, feed, care for, educate and otherwise support the refugees is an internationally coordinated effort, based on a 1998 agreement between UNHCR and the Jordanian government. More than 50 UN agencies and national and international NGOs fall under the leadership of UNHCR, which supervises the camp administration and management. The Jordanian Ministry of the Interior is in charge of the camps through the Syrian Refugee Assistance Department (SRAD) and the Jordanian police. [6]

[6] MERIP - Denis Sullivan , Sarah Tobin, Security and Resilience Among Syrian Refugees in Jordan (2014)

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[5] South Africa - Wikipedia
[6] United Nations University, 2015
[7] IDMC » Global Figures - Council, 2016
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15%
56%
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At this point in history, we face the largest ever migrant crisis, with over 60 million displaced due to conflict and climate change. A variety of solutions has been developed to cater to primary housing needs but long-term public and community facilities need more attention as an important means of creating an environment of hope and dignity.

This has been the reason to explore the theme of public buildings in refugee camps and to develop an architectural instrumentarium to design prototypes of so-called "Public Buildings for Refugees". In an extensive year-long research, existing camps of different kinds around the world have been studied to understand the spectrum of architectural typologies of buildings that could empower the lives of inhabitants in temporary, semi-permanent and permanent settlements. Altogether, these studies have been assembled in book: The Catalogue. The Catalogue is accompanied by a complementary book, The Dictionary, where research regarding a wide range of refugee-related topics and student-designs for public buildings for refugees has been indexed.

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