

The Refugee Camp as a City

Researching sustainable shelters



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1 Introduction

Syria's civil war unleashed one of the worst humanitarian crises of our generation. Since the conflict started in 2011, millions of Syrians have been murdered or forced to flee their country.

Syrian families are encountering hazardous conditions to survive inside their country. According to United Nations Refugee Agency figures, over 4.8 million people have fled the Syrian conflict, entering as refugees in the bordering regions of Turkey, Egypt, Lebanon, Jordan and Iraq (UNHCR, 2016). Most of them decide to finally escape after seeing their neighborhoods devastated or their relatives killed, hoping to make a new home in the adjoining countries.

Though more hopeful, the journey to the border means running the same risk as staying: families walk for kilometers through the darkness of the night to avoid being killed by snipers or caught by the regime soldiers who will force young men to fight for their forces.

But what do those who manage to escape find after this risky journey? Provisional rooms, mud-floored tents and makeshift shelters that those displaced millions try to call home can make families feel trapped, cramped and far away from any feeling of home. The lack of resources such as clean water, sanitation or electricity can make life even more challenging in these settlements.

The aim of this paper is to focus on the analysis of the nature and the quality of the shelters where refugees are forced to live in and the way families build their day-to-day life around these 'temporal' structures. To do so, Za'atari refugee camp, in Jordan's desert will be more deeply studied, considering its social and

urban organization and investigating possible approaches to improve refugees' quality of life.

2 Literature Review

2.1 International law about refugees

It is known that '*refugees are among the most vulnerable group of people in the world*' (UNHCR, 2011). Although a question must be answered first: who is a refugee and what are their rights under international law?

Through the course of World War I, millions of people left their home countries aiming to find protection in other regions. Governments acknowledged this massive migration of those who were the first refugees of the 20th century, by formulating a series of international agreements to provide travel scripts for them. Since then the number of forcibly displaced, expatriated and/or resettled people has increased drastically. In response to this dramatic fact and in order to ensure the adequate treatment of refugees, the international community came up with a set of protocols, laws and conventions to protect their human rights. (UNHCR, 2011)

In July 1951, a diplomatic conference passed *The 1951 Convention Relating to the Status of Refugees*. These documents specified who is a refugee and the kind of legal protection and social rights they are rightfully permitted to receive.

It defines a refugee as '*a person who is outside his or her country of nationality or habitual residence; has a well-founded fear of being persecuted because of his or her race, religion, nationality, membership of a particular social group or political opinion; and is unable or unwilling to avail him— or herself of the protection of that country, or to return there, for fear of persecution (Article 1A)*'. (UNHCR, 1967)

But what rights do refugees have under the 1951 Convention? According to it, refugees deserve at least the same standards of treatment as any other foreign nationals in a certain country and, in most of the cases, equal treatment as nationals. (UNHCR, 2011)

The main principle of the 1951 Convention is the 'non-refoulement' obligation (Article 33), which refers to the prohibition against returning an asylum-seeker to their country of prior residence if doing so would cause their '*life or freedom [to*

be] threatened on account of his race, religion, nationality, [or] membership of a particular social group or political opinion'. (UNHCR, 2011)

Other rights incorporated in this Convention are '*the right not to be expelled, except under certain, strictly defined conditions (Article 32); the right not to be punished for illegal entry into the territory of a contracting State (Article 31); the right to work (Articles 17 to 19); the right to education (Article 22); the right to freedom of religion (Article 4); the right to access the courts (Article 16); the right to freedom of movement within the territory (Article 26); and, the right to housing (Article 21)*' (UNHCR, 2011). However, this last one is not always achieved in the most humane conditions.

United Nations High Commissioner for Refugees, known as UNHCR, plays the role of the 'guardian' of the 1951 Convention, which specifically states that governments are expected to cooperate with UNHCR to ensure that refugee's rights are being respected.

2.2 Situation and refugee law in Jordan

Jordan has the highest rate of refugees per number of citizens in the world, with around 700,000 according to The UN Refugee Agency (UNHCR, 2016). However, references to asylum seekers and refugees are a narrow point in its laws, as Jordan did not take part in the Refugee Convention of 1951.

Can a country as Jordan, that has not signed the 1951 Convention, deny the admission in their territory to a person seeking protection? A refugee pursuing asylum must not be prevented from entering a country as this would play against the principle of non-refoulement that is considered a rule of customary international law. As such it is unavoidable by all States, regardless of whether they have accepted the 1951 Convention. In accordance with this, Jordanian Constitution stipulates that: '*Political refugees shall not be extradited on account of their political beliefs or for their defense of liberty (Article 21)*' (Barnes, 2009).

In practice, several matters are usually cited over Jordan's non-signatory status including the politically and socially complex yet still undetermined Palestinian refugee problem, the lack of capacity to host refugees, and the popular feeling against refugee integration who are accused of stealing jobs, increasing rents, overcrowding schools and draining the already poor resources (International Labour Organization, 2015) .

Those complaints could somewhat explain the introspective character of most Jordan camps, as Za'atari or Azraq settlements, located in the middle of the desert, which seems above everything conceived to prevent refugees from running away or accessing public utilities.

The only refugee-specific regulation in Jordan is a 1998 Memorandum of Understanding (MoU) between UNHCR and the government, which makes the UNHCR's obligation to determine the refugee status of asylum seekers in Jordan and provide them with protection (Bidinger, et al., 2015). However, not recognizing the refugee status by Jordan government involves no legal meaning under domestic laws, and so asylum seekers who are registered with UNHCR are not given residency which, in practice, limits their capacity to seek lawful employment (International Labour Organization, 2015).

2.3 UNHCR Refugee Protection Protocol regarding to camps

According to its procedure, once an emergency is unleashed, UNHCR immediately reacts by starting the negotiations with local authorities in order to find the proper location to settle a camp. The criteria is designed based on security, accessibility and an optimal geographical position, with access to water and the most favourable ground possible to set the tents.

These 23-square meters easy-assembly tents are airlifted in huge amounts and have capacity for 5 people, which translates to less than 5 square meters per person. They are set up in blocks in order to place the amenities in an organized way. During the construction, it is essential to order the camp with the main purpose of creating a safe place. For instance, in order to stamp out sexual aggressions to women, unlighted paths towards the toilets must be avoided. Fighting against danger is also a reason to locate health care centres, schools and elderly and women protection services inside the camp (ACNUR, 2016).

In Jordan, UNHCR-registered refugees living in camps obtain humanitarian assistance and shelter, as well as a number of basic goods, such as bread, cooking fuel, water and electricity; these last ones seemingly subsidized by the government (Bidinger, et al., 2015) (UNHCR, 2015).

2.4 Za'atari refugee camp

About two thirds of the almost 5 million refugees are squatting in Jordanian cities and villages, but the problems are more serious in Za'atari camp, the first official refugee settlement in Jordan. It is the most concentrated colony of refugees; approximately 79,500 Syrians live there in row after row of white tents or trailers. Life there becomes an endless cycle of clearing dust from the arid desert and waiting in lines to get food and water (UNHCR, 2016).

2.4.1 Refugee Organization Structure

The camp was settled on July 2012 and now occupies over 500 hectare in the northern Jordan border, 12 km away from the city of Mafraq and around 76 km from the capital, Amman. (UNHCR, 2015) The rectangular shape of the settlements is divided in 12 districts, each one of them structured around a main street which runs from northwest to southeast. These 'avenues' are crossed by 90° angles by a set of smaller streets that form a grid of quadrangular cells where all living spaces are supposed to be allocated in a systematic way.

Each one of the districts has a large number of bathrooms and public kitchens, plus several mosques and points for help and support ruled by several NGOs and associations. Za'atari has four hospitals and refugees have constructed a vast, unregulated marketplace, with corrugated-tin stalls where they sell food, ice cream, portable washing machines, heaters and used clothes. (UNHCR, 2015)

Regardless of this organized plan, the streets were becoming a mess mainly due to the fact that refugees did not respect the initially assigned spots. Families move from one street to another in order to live closer to the people they know well or those ones from their city or community in Syria (Ledwith, 2014). The truth is that even if they try to set a previous plan, the relationships between people were not taken into account, rendering the city planning more or less useless and creating its own organizational system: residents from each street choose one leader for the representation of the whole group.

Nowadays, the dust from the formerly barren desert seethes around the camp. Except the main one, most of the streets are packed dust which makes fighting against this dirt an everyday issue for refugees. In order to implement the hygiene, UNHCR is planning to pave the whole camp. (UNHCR, 2015)

2.4.2 Winter preparation

Every winter, Jordan reaches temperatures that can be below zero degrees with heavy rains and snowstorms expected. Most of Zaatari's residents have been living in the camp for more than two years and have therefore encountered several winters there. This period of the year involves dealing with snowstorms that usually cause shelter damage, block roadway access in the camps and complicate everyday living conditions.

Refugees complain about the difficulties to resist the harsh weather, risking their lives and exposing themselves to diseases, cold and hunger for those ones living in tents.

In response, UNHCR has carried on research aimed to analyse the camp residents' winter needs, including sustainability of current shelters for winter and the types of repairs needed. From the people living in Zaatari, almost 70% reported that their family's shelter is inadequate for winter (UNHCR, 2015). They have experienced flooding, caused in most of the cases due to leaking rooves rather than to inundation through the doors or the base of the structure (UNHCR, et al., 2015).

The scarcity of the shelters' construction materials makes it even more complicated to face the dropping winter temperatures. Heaters are, at first sight, the most effective response to the cold. However, almost half of the population do not currently possess any kind of heaters, and for those owning one in many cases it is not functioning (UNHCR, et al., 2015).

In response, from the 350 million Euros UNHCR 2015 Budget for the Refugee Program, they are allocating some of the resources to the distribution and fixing of heaters and to initiatives that aim to reinforce the resistance of the shelters, with particular attention to preventing rain and snow leaking from the roof (UNHCR, 2015) (UNHCR, et al., 2015).

Moreover, UNHCR is also taking actions to check the safety of electricity connections in the camps in order to reduce the risk of electric shocks and fires caused by uncovered wires in wet winter conditions. (UNHCR, et al., 2015)

3 The camp as a city

Za'atari has turned into an enormous network of disorder, a jungle of humanity. Electricity is pirated. Food rations are shamelessly resold right in front of distribution hubs. The camp has simultaneously become, school and play — life — for those displaced people and children of Syria.

Rapidly expanding refugee camps 'are the cities of tomorrow', said Killian Kleinschmidt, an experienced professional on humanitarian aid who has participated during 25 years in various camps' operations with the United Nations and the UNHCR (Kleinschmidt, 2015).

Analysing Za'atari camp in this sense, one can agree that Kleinschmidt is right in his approach: the settlement is becoming a spontaneous 'do-it-yourself' city, in which real metropolitan issues such as the development of neighbourhoods, a burgeoning economy or gentrification are present (Kimmelman, 2014). The refugees have even come up with an address system in order to organize themselves.

With an increasing number of 80,000 registered living there, Za'atari's civilization is pushing towards a proper urban structure (UNHCR, 2016). Urbanization is a fact that happens even in desperate spots: people tend to make the spaces where they live their own, leaving their mark wherever they reside.

The unstoppable rising of forced migrations has led to debates about the need to deal with camps as more than temporary centres, more than 'waiting rooms' with tents where 'fleeting' population wait for an average of 17 years, a whole generation (UNHCR, 2016). Refugee settlements are considered by advanced-thinking aid labourers as urban incubators, communities that can expand, flourish and even contribute to the host nations if they are thought from the beginning as places to address those regions' long-term necessities, rather than turn into drags on those countries.

Such thought is driven by the facts: Syrian families, running away from the war and with no immediate path to peace, have no other choice but to face never-ending exile in sites like Za'atari, where refugees are promoting local economy in order to serve their primary needs.

4 The Role of Architects in Urban Shelter Design

As said before, even if Za'atari is thought as a temporary place and it is not constructed with the proper structure, organic urban development is irrepressible. As in any other camp, growth will happen anyway, whether it is encouraged or not. It is part of the human nature. So as urban planners the primary deal is to rethink if refugee camps should or should not be planned, and if so, how to do it in an efficient way.

However, the idea of redesigning the urban organization of a whole camp is a large-scale project that, as individuals, we are unable to address. Due to the high expenses it would cost, this planning in already existing camps would not be feasible in a foreseeable future. It sounds like an utopia.

Nevertheless, that does not mean that as architects or designers we should sit idly. If focused on a smaller scale, changes can be more affordable in the near future. 'Surely we, as architects, must have something to say and offer in regards to one of the most basic human rights: shelter' says architect Jeannie S. Lee, head of EVA design studio which focus its work in social and humanitarian-aid architecture (DeZeen, 2016).

As this refugee crisis is a global matter too big for NGOs and governments alone, design turns into the last problem-solving discipline. Nowadays, there are some examples of designers and architects that are using their creativity to come up with ideas to conserve human dignity in refugee camps.

4.1 IKEA Better Shelter

In order to avoid the shoddy canvas tents, which by no means could create the feeling of home to the ones living there, the IKEA Foundation alongside with UNHCR has developed the 'IKEA Better Shelter'. First launched in 2013, these shelters are a shed-liked construction made out of thermally-insulated polymer panels that become attached to a steel structure.

The shelters come flat-packed in cardboard packages which decreases the expenditure sent to transportation. After its 4-hours assembly, it deploys in a 17.5-square-metre enclosure, creating a space for 5 people as well but two times larger than the traditional canvas ridge tents (BetterShelter, 2016). From a cost-effective point of view, as life in refugee camps tend to last longer than expected, one of the

most interesting aspects of this prototype is the fact that the structure allows to be upgraded in time, for instance by replacing the panels for walls or a metal roof.



Photo by Better Shelter.org

Most of the ongoing tents used in camps typically last around six months before the weather has an impact on them and, therefore needs to be replaced, even though they are a fast answer to the necessity for emergency shelter. Even if the initial price is \$1,150, almost three times more expensive than a conventional tent, Ikea`s solution still appears to be quite cost-effective considering its 3-years longevity (Koc, 2015).

Energy supply is indispensable in order to reach basic human protection and dignity, both essential ethical goals of humanitarian aid. This energy is completely necessary to provide cooking, lighting, heating, clean water and at the same time is the base for every type of income-earning activities. However, 90 percent of displaced people living in refugee camps lack access to electricity, in part because financing for those services is inefficient (Leach, 2015).

Taking this into consideration, IKEA Better Shelter seems to be also cost-effective in this aspect: solar panels included are able to provide enough electricity to light the shelter in the nights or to charge electronic devices. Thermal comfort is aimed to be reached by an aluminium fabric located in the roof that reflects the sun in the warmest hours and keeps heating during the nights (BetterShelter, 2016).

4.2 RE:BUILD Low-Cost Construction made out of Sand

The condition of refugee usually lasts more than expected (the average time spent as a refugee is 17 years as reported by UNHCR (UNHCR, 2016). This means that we should invest ‘in advance’ in longer lived disaster-relief solutions in order to achieve long-term responses to the actual refugee flood.

As said before, UNHCR is introducing less temporary prefabricated housing like IKEA’s flat pack homes. Despite all its positive qualities, any local solution that does not require the complex logistics to be manufactured or imported seems more reasonable.

Cameron Sinclair, head of Architecture for Humanity, together with Pouya Khazaeli, a local construction expert, have come up with a more efficient and sustainable idea to construct homes, schools or any other facilities in camps by the use of locally found materials like soil and gravel. Without any water or electricity needed to be built, one of the strengths of this design lies in the fact that it can be assembled directly by refugees with no previous knowledge of construction. This unskilled workforce means that buildings can be disassembled and re-built somewhere else by the refugees themselves, without waiting for someone’s else help. ‘By engaging the refugees as paid laborers we ensure that they once again feel in charge of their own destiny’ Sinclair says in an interview by Fast Company magazine (Peters, 2015).

The simple construction technique allows one to construct anything from a modest house to a larger-scale facility like a school, arranging the layout according with the current refugees’ needs. Working hand in hand with refugees makes it easier to adapt the design to the local patterns, getting away from the risk of importing impractical solutions.

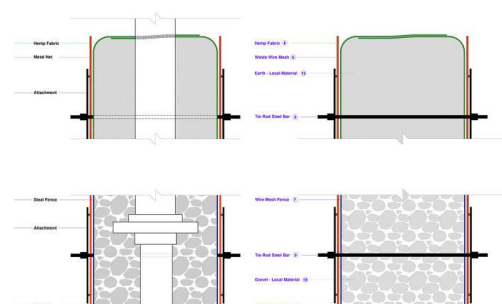


Photo by Fast Company Magazine

The design is based on sandwich metal frames filled with gravel or soil that execute the function of natural and economical insulation and on solar panels capable to supply the energy for the building (Peters, 2015). In conclusion, a completely cost-effective and sustainable response concern with the social and economical reality in refugee camps.



Photo by Fast Company Magazine



Photo by Fast Company Magazine

4.3 Recycling tents by NCR

At a time when the decreasing funding fails to cover the scale of needs, finding innovative ways to support refugees has become an important issue for humanitarian aid.

Since Zaatari camp opened in July 2012, according to the Norwegian Refugee Council (NRC) around 70,000 tents have been distributed to newly arriving Syrian refugees. As the initially used emergency tents have been increasingly replaced with more permanent prefabricated shelters, the NRC has disassembled, collected and redistributed thousands of tents no longer in use, each one of them valued at 400 Euros (Yamin & al-Masri, 2014) (ACNUR, 2016).

However, it is a reality that due to excessive use and damage suffered there is a huge amount of tents that could not be reused. This otherwise futile material has been transformed by a NRC's project, led by a Jordanian engineer, in innovative solutions, not only to save money but to improve the quality of life in this refugee camp.

As it is known, children are one the most vulnerable groups of displaced people. On many occasions, the effort to protect them forgets the fact that, as kids, they have to play. Zaatari camp has a lack of space dedicated to children. In response to this issue, the project carried through by NRC is developing a full set

of playground material with the metal tents pipes and UNHCR fabrics: swings, a merry go round, a seesaw and swinging horse.

NRC projects also looks at the 10 percent of Syrian refugees in Jordan that are estimated to have physical disabilities or war injuries. As many of them struggle to be self-sufficient to move around the camp, the researchers have developed a prototype of a special-needs tricycle made out of metal pipes to transport their items. Considerable prototypes of regular household items such as coat racks, wardrobes, beds or baby strollers have also been created (Yamin & al-Masri, 2014).

Innovative projects like this are a win-win in that it not only saves money for the contributors but also gives employment to Syrian workers, who find ways to help their community. This project is proof that the role of designers and architects thus calls on their problem-solving skills to investigate new ways of boosting as much as possible the quality of life of those unfortunate enough to be stuck in refugee camps.



Photos by NRC Norwegian Refugee Council

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