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Douglas L. Steidl, Dean, College of Architecture and Environmental Design
THE INTERRELATIONSHIP BETWEEN BUILT ENVIRONMENTS
AND DISPLACED PEOPLES’ BEHAVIOR

A THESIS SUBMITTED TO COLLEGE OF ARCHITECTURE AND ENVIRONMENT DESIGN
OF KENT STATE UNIVERSITY
IN FULLFILLMENT OF REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARCHITECTURE

BY NASEEM BARADARAN FALLAHKAIR
FALL 2014
Dwelling is more than the materials from which it is made, the labor that has gone into its construction, or the time and money that may have been expanded on it; the dwelling is the theater of our lives, where the major drama of birth and death, of procreation and recreation, of labor and of being in labor are played out and in which a succession of scenes of daily lives is perpetually enacted.¹

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I would like to gratefully thank Professor Fleming for his guidance, understanding, patience and support during my graduate studies at Kent State University.

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I also like to thank my brother, for all his unending encouragement and support in the moments of queries.

Naseem

November 2014
### Acronyms

<table>
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<th>Acronym</th>
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<tr>
<td>ESC</td>
<td>Emergency Shelter Cluster</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UN/OCHA</td>
<td>UN Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>UN Habitat</td>
<td>UN Human Settlements Program</td>
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<tr>
<td>UNHIC</td>
<td>UN Humanitarian Information Center</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
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1 Introduction

1.1 Background and Rationale

Displacement of people’s settlements is a part of human experience. Fleeing, disaster or violence is among the least desirable aspects of the human condition, and remains among the world’s most difficult challenges.

According to Guardian Press, the number of refugees passed 50 million for the first time since the second World War. The United Nations High Commission for Refugees (UNHCR) also releases number of refugees every June, in an annual report. By June 2014, the number of forcibly removed refugees was 51.2 million. Based on UN definitions, a refugee is someone who fled her or his home and country owing to “a well-founded fear of persecution because of her/ his race, religion, nationality, member in a social group or political opinion,” according to United Nation 1951 refugee convention.

The emergence of organizations such as The United Nations (UN), UNHCR World Health Organization (WHO); and the great increase in number of temporary and permanent shelters; from planned camps to self-settled camps; show the need for studies on displaced people and their needs. The interrelationship between shelters and peoples’ behavior and the mental well-being of displaced communities holds environmental psychologists attention, meanwhile efforts have been made by many architects to design shelters in these environments, a majority of them focused on the construction of these shelters, not people’s and communities’ behaviors in these built environments. Most of the architects and designers consider these shelters as single units but they fail to consider people and their physical and behavioral operations.

From 2011, civil conflicts arose in parts of Middle East in what has been called “The Arab Spring”. In the spring of 2011 conflicts arose between the Syrian government and some political groups, which lead to a civil war, and many people left the country. In March 2013, UNHCR announced that the number of refugee fleeing the Syrian conflict had reached the one million mark. Since that time, the refugee exodus has continued, the largest numbers of people fleeing to Lebanon, Jordan, Turkey, Iraq and Egypt. Responding to this emergency, the Assistant High Commissioner for Operations (AHCO) requested the Policy Development and Evaluation Service (PDES), to lead a review of UNHCR’s response to this refugee emergency, focusing on Jordan.

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On the other hand, in recent years, many designers have come up with innovative designs for transitional shelters, but dealing with cost, weight, volume, land rights, and political barriers make it difficult for organizations in charge to implement them. One of the biggest refugee agencies, UNHCR, is mostly working with Stanford University and Ennead Architects in New York City to design and build transitional and permanent housing in responsive to post disaster situations.

Political, organizational and economic factors are at play in choosing the appropriate types of housing for displaced populations. There is a need for organizations and architects to study and consider human behavior in these built environments. Refugees are affected by different factors; losing their homes, leaving their home country or victimized by political or tribal violence, they may have already attained mental and behavioral damages, and they need care to heal traumas of those damages and circumstances. Behavioral scientists have studied the effects of built environment on displaced people.

UN, UNHCR and other humanitarian organizations performed much research on the refugees housing issues. UNHCR promotes exchange of information among policy makers, researchers, humanitarians, planners and architects. But architects focused mostly on the construction of shelters and failed to consider other aspects of it such as cultural sensitivity.

According to Syam Rachma Marcillia and Ryuzo Ohno’s article on refugee camps and their residents’ adjustments; “Housing reconstruction cases without cultural sensitivity resulted in rejection.”4 Housing displaced population without considering their culture will result in rejection and misbehavior. Creators of these environments must consider inhabitants previous life style, dwelling and their cultural and behavioral identity.

By studying and analyzing images of refugee camps, I realized that residents of camps adjust their physical and behavioral life to their current housing and environment to sustain and protect a feeling of security and attachment to their new environment.

1.2 Intent and Objectives

This study intends to examine the inter-relationship between shelter and the behavior of displaced communities. This study is an attempt to complement other existing research and efforts to help designers to identify problems and address solutions in the built environment to improve mental health at refugee camps.

The objectives of this study are:

- Examine the role of shelters in people’s behavior at refugee camps
- Analyze existing conditions

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4 Learning from Residents in Self-built and Donated Post Disaster Housing after Java Earthquake 2006, Syam Rachma Marcillia and Ryuzo Ohno, June 2011, ASEAN Conference on Environment- Behavior Studies
Introduce and examine physical environment features to facilitate some behaviors

1.3 Research Questions

The research questions guiding this study are:

- How do people adjust their culture and behaviors to their new environment?
- What are behavioral and cultural adjustments of Syrian refugee camps?
- Is there any sense of place, place attachment and place identity at Syrian refugee camps?
- What are the resident’s emotional and cultural relationships to the physical settings of camps?

1.4 Methodology

To respond to the research questions, case studies in Syria were examined; Syrian refugee camps were selected because of the number of Syrian refugees, (more than two million people), and also the author’s familiarity with Middle Eastern culture. An inductive approach to the study was selected to understand shelter environment and examine refugee’s behaviors and daily activities in shelters. The inductive approach helped the writer to build up an evidence base through analyzing current conditions of shelters in the case study.

The study is based on secondary sources. To establish a conceptual basis and background, a broad range of literature review was undertaken covering a wide range of theoretical approaches to environmental psychology and shelters after disaster.

Sources of literature included academic books, papers, articles and literature from humanitarian organizations like UNHCR and Red Cross.

The writer also did a number of creative visual explorations of current conditions at Syrian camps. Visual analysis and studies based on images of current situations of refugee camps shed light on people’s cultural and behavioral adaptation to the new place. These visual explorations represent the dynamic phenomena of the relationship of people and place. It also represents quality of dwelling in camps and their everyday life. This is a creative approach to explore a place, in this case a refugee camp based on visual analysis on every day experiences in the camp.

These illustrations demonstrate contradictions between Syrians everyday life at camps and their cultural background and heritage, which lead to a Procrustean fit.

I looked at the current situation at Syrian camps with the lens of “Procrustean fit”, which will be explained later. Syrians are battling to make these camps fit their culture and behavior.

In this study, I explore physical setting as well as residents’ behavior at Syrian refugee camps to interpret the emphasis of flexibility of the built environment on residents’ activities and satisfaction.
1.5 Limitations

Through this study I confronted limitations. One of them was not being able to travel to Syrian refugee camps, which I tried to solve, through using primary sources. Syrian refugee displacement is a relatively recent occurrence, so there is little research on long term impact of shelters on Syrian refugee behavior. Human behavior and reactions to built environment is a complex subject, the vast study of human behavior is beyond the scope of this research, but a focus on research specific to refugee experience will inform this research. Imagining over four million refugees is overwhelming. To explore and investigate patterns and conditions of life and refugees’ behavior in these conditions, I imagined a family, their things, and their choices. I looked at everyday items used by refugees at camps. I sought images of current situations from primary sources like Red Cross and UNHCR. For the writer, these explorations were like watching a scene in a movie, in which you have to imagine the rest of the scene yourself, and explore what is not shown. I had images of current conditions at refugee camps; each image framed part of a scene, I wasn’t able to see the rest. In my understanding and perceiving the refugee’s everyday life through images, filmic imagery had an important role. Filmic imagery is understood through Henri Bergson’s conception of virtuality; when he mentions: “The interest of a living being lies in discovering in the present situation which resembles a former situation, and then in placing alongside of that present situation what preceded and followed the previous one, in order to profit by past experience.”

1.6 Structure of the Study

This study begins with an introduction of transitional shelters and provides the reader an overview of current trends and issues of refugee camps and shelters. It reviews the literature in the area of human behavior and built environments (Section2); it will introduce two studies that have an important role in the area of cultural sensitivity and human behavior in the built environment. These studies create a base for this research, and identify major issues of current thinking and approach to temporary shelters and the relationship between shelters and wellbeing and behaviors of refugees, Section 3, will begin with philosophical background of dwelling and theory of Procrustes and Procrustean fit.

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5 Matter and memory, Edited by Henry Bergson, New York; The Macmillan Co. 1913, P.323
In section 4, case studies of transitional housing are introduced to give the reader an idea of recent designs and let the reader compare them with the recent research on built environment and human behavior.

Section 5, begins with the introduction of the context, reason for choosing the context, the history of refugee camps in the context.

In section 6, includes the author’s creative visual investigation and exploration of the current refugee camp situations, the purpose is to discover and examine daily life of refugees and their behavior at camps. The research identifies key lessons from existing camps and provides recommendations for future responses.
2 Literature Review

Many studies survey and investigate the built environments’ effect on human beings’ behavior. Most were written by environmental psychologists and social and behavior sciences fields. Two papers on environmental psychology and built environment influenced the approach to place attachment and place identity roles in severe circumstances; Altman and Low, 1992; Proshansky, Fabian and Kaminoff, 1983.

Proshansky and Altman’s research, directly influenced this study. There is a study of post disaster housing, which was presented by Syam Rachma and Ryuzu Ohno in ASEAN conference on environment-behavior studies in June 2011. This is a study to understand the importance of cultural background on designing shelters, they performed field studies and interviews to evaluate satisfaction and dissatisfaction of victims regarding their shelter for their post disaster recovery. This research highlights the role of social behavior in post disaster dwellings and in severe circumstances. This study indicates the importance of culturally sensitive design and flexible designs for the reconstruction of disaster zones.

The second study in the area of environmental psychology is ‘Place attachment in foreign settlement’, carried out by Ceren Bogac from Eastern Mediterranean University at January 2009. This study examines issues arising from Turkish relocation of refugees to Cyprus. The writer gathered data from interviews and questionnaires to analyze peoples’ place attachment in forced relocation.

2.4 Terms (Definitions Related to Post Disaster Reconstruction)

- Transitional Settlement:

  ‘Transitional Settlement’ is a new term, defined through the shelter project peer-review process to mean ‘settlement and shelter resulting from conflicts and natural disasters, ranging from emergency response to durable solutions’. 6

  Transitional shelters support families in making their own decisions through structures designed and constructed in cooperation with the families. Using material for more than

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6 Oxfam, Shelter Project, University of Cambridge, Transitional settlement, displaced populations, Tom Corsellis and Antonella Vitale
one purpose or relocated from a temporary site to a permanent location. The materials used in transitional shelters can be resold for capital or recycled into a permanent house.

- **Shelter Sector:**
  The term ‘Shelter Sector’ has been applied to the practice of responding to the settlement and shelter needs of refugee only.\(^7\)

- **Recovery**
  The restoration is improvement of facilities, livelihoods, environments and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.\(^8\)

- **Trauma**
  According to the Merriam Webster dictionary trauma is defined as; a. a very difficult or unpleasant experience that causes someone to have mental or emotional problems usually for a long time; b. a disordered psychic or behavioral state resulting from severe mental or emotional stress or physical injury; c. an injury (as a wound) to living tissue caused by extrinsic agent.

- **Place Attachment**
  Brown and Perkin claimed:” After the development of secure place attachments, the loss of normal attachments creates a stressful period of disruption followed by a post- disruption phase of coping with lost attachments and creating new ones.”\(^9\)
  Refugees lost their home besides maybe losing loved ones, the process of losing a home and getting attached to a new place is a complex process, which transitional shelters influence.
  “People’s past experiences, whilst acknowledging their involuntary relocations, play a major role in their feeling of attachment to a particular place.”\(^10\) Each refugee has her/his own experiences and memories, so they have a strong bond to the place where these memories form. Physical

\(^7\) Oxfam, Shelter Project, University of Cambridge, Transitional settlement, displaced populations, Tom Corsellis and Antonella Vitale

\(^8\) Ibid

\(^9\) Brown and Perkins, 1992, P. 279

\(^10\) Journal of Environmental Psychology, January 2009, Place Attachment In a foreign Settlement, Ceren Bogac, P. 272
characteristics of shelters play a great role in people’s attachment to the refugee camps, since all the experiences happen and shape in the physical environments.

• **Livelhood**

Ways in which people manage their lives in order to access the resources, such as food, water, clothing and shelter, they need individually and communally.\(^\text{11}\)

• **Relief**

Provision of assistance or intervention during or immediately following a disaster to meet the life preserving and basic subsistence needs of those people affected.

• **Resettlement**

Actions necessary for the permanent settlement of persons dislocated or otherwise affected by disaster to an area different from their last place of habitation.

• **Shelter**

Habitable covered living space, providing a secure, healthy living environment with privacy and dignity for the groups, families and individuals residing within.

• **Place Identity**

“Place Identity is a physical world socialization of the self”, Proshansky says. He mentions “Place identity is a potpourri of memories, conceptions, interpretations, ideas and related feelings, about specific physical settings, as well as types of settings.”\(^\text{12}\) Place attachment makes us feel safe and forms our character. People spend all their life to design and make their home, to have a safe space and show their character and identity, losing that home causes trauma.

How do refugees adapt themselves to shelters that don’t match their identity and background. “There is a difference between a house and a home, Moore (2000) has explored the process through which homes develop meaning. The process of transforming a house into a ‘home’ is a

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\(^\text{11}\) Transitional Settlement Displaced Population, Tom Corsellis and Antonella Vitale, University of Cambridge, Shelter Project, Oxfam

\(^\text{12}\) Proshansky et al, 1983, Page 57-60
continuous process, which develops in parallel to accommodating the social and physical relationships with that place."  

- **Humanitarian Spaces**

Merriam Webster defines humanitarian as a person who is promoting human welfare. Humanitarian space, both location and distance, is a space which can promote human welfare and reform. A much used term, its real meaning remains somewhat unclear. Erik Abild claims: “The most often credited source of the term is Rony Brauman, a former president of Médecins Sans Frontières (MSF), who used it in the early 1990s (Barnes 2009, Beauchamp 2008, Givoni 2008, IASC 2008, Lie 2008, Torrenté 2006, Thürer 2007, UNAMA 2009, von Pilar 1999, Wagner 2006). Brauman described it as a space for humanitarian action” *where we are free to operate.* This is in line with what today seems to be the most commonly used meaning for the term, namely "operating environment" (ECHO 2004) or “agency space” (Leader 2000), distinct and separate from any political aspects or influence.” In Abild’s writing the most influential statement for this study is the part that defines humanitarian space as where people are free to operate.

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13 Eastern Mediterranean University, Department of Architecture, Salamis Yolu, North Cyprus, Journal of Environmental Psychology, January 2009, Place Attachment In a foreign Settlement, Ceren Bogac, P. 272


15 NEW ISSUES IN REFUGEE RESEARCH, Creating humanitarian space: a case study of Somalia, Erik Abild, Refugee Studies Centre, University of Oxford
3 Philosophical Perspective on place and People’s behavior

To understand people’s behavior in space, phenomenology is a functional base. “Phenomenology focuses on the meaning and experiences of places via a descriptive, qualitative discovery of things in their own terms.” Heideger’s concept of dwelling is more than orders and built environments, he believes that dwelling is a way of existing.

Yi-Fu Tuan writer of ‘Space and Place: The Perspective of Experience’, claims: “Every human construction, whether mental or material- is a component in a landscape of fear because it exists to contain chaos.”

Among other things, phenomenology explores concepts of quality in dwelling.

“Simply to survive, a faith in the trustworthiness of the space we occupy seems essential. Culture reinforces that faith.” Yi-Fu Tuan, by this statement, claims space, culture and human being’s survival have inseparable relation.

“Cultures differ in the ways they define space, but define it they must. The minimum requirement for security is to establish a boundary, which maybe material or conceptual and ritually enforced.” Here, with another statement, Tuan ties security, culture and space together. And he believes that we should define a space, and each culture defines a space differently than the others. His discussion bring this question to mind that do temporary shelters match to their residents’ cultures, and how this will affect their behavior in the space?

Phenomenologists define dwelling as a way of man’s existence in the world, which comes from a specific type of setting. Phenomenologists use examples of house and home to define notion of dwelling and people’s relationship to places: “The notion of dwelling highlights the contrast between house and home. It connects a more active and effective relationship of individuals to the physical, social and psychological spaces around them.”

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17 Landscape of fear, Yi-Fu Tuan, P.6

18 Landscape of fear, Yi-Fu Tuan, P.205

19 Landscape of fear, Yi-Fu Tuan, P.206

From a phenomenological point of view, people’s relationship to places is dynamic.

Seamon mentions: “‘the world ‘relationship’ suggests a dynamic process, whereby different ‘worlds are drawn together in a lasting way’”21 The character of peoples relationship to places is dynamic, each person creates her/his own connection to the place where she/he is living, that connection is dynamic and it changes over time.

Place attachment is dynamic as well; it changes in accord with people. “A dynamic view of relationships to places also allows for an exploration of how places hold meaning through both negative and positive experiences, since both contribute to the development of a person through the life course.”22 This argues that negative and positive experiences of a person in a place shape people’s connection to place and their characteristics.

On the other hand, to design for displaced people, due to all the changes and catastrophes they went through, they need to inhabit their new environment; they need a place which can provide their needs. Abraham Maslow, an American Psychologist, defines a hierarchy of human’s needs. He describes humans’ instinctive needs by priority. The original hierarchy he characterizes is:

- Basic physiological needs such as food, shelter, and sleep.
- Safety needs such as security, stability, and order.
- Social needs such as love, belonging, and friendship.
- Esteem needs include acceptance by others, a sense of achievement, and independence.
- Cognitive needs such as intellectual fulfillment and knowledge.
- Aesthetic needs include harmony, balance, and beauty.
- Self-actualization is the goal of human development and occurs when a person meets his or her full potential. Self-actualized people are joyful, empathetic, giving, and fulfilled.23

Maslow defines his hierarchy to have a value system for psychologically healthy people. He believes there are certain needs and desires that are the same among people. All humans need to eat, sleep, feel safe and in higher levels of his hierarchy, all people like beauty and self-actualization. So the unique aspect of Maslow’s approach is that he believes there are mutual values and needs among different human species. Maslow’s theory is biologically based, but also the concept of common and generic species values should integrate with variations in human needs.

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23 Maslow, Abraham H., Religions, Values and Peak Experiences, Ohio State University Press, Ohio, 1964
Humans’ relation to their environment also contains concepts of fit and fitness. To define fitness in space, Procrustes theory is helpful.

In Greek mythology, Procrustes was an inn-keeper/thief who offered travelers a place. After the travelers were in his place, he would tie them to an iron bed. If they were shorter than the bed he would stretch them, and if they were taller than the bed he would cut their hands or legs, so they fit the bed. Today, Procrustean bed refers to a set of situations that everyone is forced to follow.

In my approach to explore Syrian refugee camps, these three theories were influential; theory of phenomenology, since it is an exploration of a place which is a phenomenon which includes people experiencing their new environment, people losing their emotional bonds with their previous homes and making new emotional bond with their new environment through experiences of loss and disaster, and also refugees qualities of dwellings and meaning in their lives; second theory of Maslow’s hierarchy, to explore human’s basic and mutual needs; and third, theory of Procrustean fit, to investigate the idea of culturally fit spaces for refugees.
Context

History of Refugee Camps at Syria

“Over 2 million people have fled Syria since the beginning of the conflict in 2011. This is one of the largest refugee exoduses in recent history, with no end yet in sight.”

24 UNCHR, 2014 Syria Regional Response Plan
Hosting Country

Jordan

According to UNHCR reports, the government of Jordan is accepting Syrian refugees with hospitality and even without visas, but the number of refugees is putting a lot of pressure on Jordan’s infrastructure. Right after the beginning of the fleeing from Syria, many parties and NGOs started housing construction.

“Jordan has shown enormous hospitality towards Syrian refugees. As the number of refugees continued to increase, the government insisted upon the establishment of camps, to which the vast majority of new arrivals were required to go. Today, close to one third of Syrian refugees in Jordan live in camps, with the remainder in the host community.”

Jordan’s main refugee camp is Zatari, which accommodates approximately 130,000 refugees.

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“In 2013, Jordan received a massive number of refugees. In total of 250,000 Syrian refugees were welcomed by Jordan between January and October 2013, at an average of 26,000 per month.”\(^\text{26}\)

Zatari manage by GOJ, appointed Syrian Refugee Camp Directorate (SRCD), with the support of UNHCR. It’s the world’s third largest refugee camp.

### Syrian refugee population planning figures until end of 2013

<table>
<thead>
<tr>
<th></th>
<th>Syrian refugee population as of 16 May 2013</th>
<th>Projected Syrian refugee population by end of December 2013</th>
<th>Additional population in need included in the RRP</th>
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<tbody>
<tr>
<td>Lebanon</td>
<td>474,461 (registered with UNHCR: 379,264)</td>
<td>1 million</td>
<td>80,000 Palestine refugees from Syria (PRS)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>49,000 Lebanese returnees from Syria</td>
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<td></td>
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<td></td>
<td>1.2 million Lebanese in hosting communities</td>
</tr>
<tr>
<td>Jordan</td>
<td>473,587 (registered with UNHCR: 390,371)</td>
<td>1 million</td>
<td>500,000 host community nationals</td>
</tr>
<tr>
<td>Turkey</td>
<td>347,815 (registered with the GoT: 317,430)</td>
<td>1 million</td>
<td>N/A</td>
</tr>
<tr>
<td>Iraq</td>
<td>147,464</td>
<td>350,000</td>
<td>50,000 host community nationals</td>
</tr>
<tr>
<td>Egypt</td>
<td>66,922</td>
<td>100,000</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,520,301</strong> (including 10,052 registered in North Africa)</td>
<td><strong>3.45 million</strong></td>
<td><strong>1.88 million</strong></td>
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### Needs, Vulnerabilities and Capacities

Based on UNHCR reports, majority of refugees have difficulties to obtain their basic needs. Jordan is one the five countries that host most of the refugees; Lebanon, Turkey, Iraq, Egypt and Jordan. Lebanon and Jordan are the two countries that host the highest number of refugees. High numbers of refugees set pressure on host countries’ infrastructure. UNHCR, in it’s annual report on Syrian refugees 2014, informs that providing adequate shelter for refugees is critical in Jordan, while other basic needs and services, including

\(^{26}\) 2014 Syria Response Plan, UNCHR Publication, P. 207
food, access to clean water, health care and prevention of sexual and gender-based violence must be provided for arrivals from Syria.

Facts and Figures

“In 2012, Syria had a population estimated that 22,530,746 people and by April 2014 it reached 22,087,048 and based on United Nations reports, 5,000 people flee Syria every day.”

Women and children make up three-quarters of the refugee population.

The vast majority of refugees are dependent on aid, arriving with little more than the clothes on their backs.


Syrian Refugee Camps

“The initial response of host countries to the Syrian refugee influx was one of great
generosities. Despite the fact that they have not signed the 1951 Refugee Convention, host
governments largely promote a positive protection environment, granting access to territory,
registration and public services. Yet, as the influx has continued, infrastructure and services for
health, education, shelter, water and sanitation have faced increased pressure.”

UNHCR in its annual report mentions; “There is an urgent need to decongest Za’ tari camp. A
spatial analysis is under way which will result in an improved allocation of functions within the
overall camp layout. This process is accompanied by a reinforcement of the camp management
as well as a renewed focus on the living habits and social structure of the communities and the
creation of community teams actively involved in the camp redesign. The provision and access
to adequate shelter will also benefit from the restructuring.
The limitation of appropriate community participation in camp development also had a
profound effect on the performance of the emergency shelters. The refugee community had a
limited sense of ownership over the relief items distributed. In many instances acts of
vandalism or insufficient care and maintenance resulted in the destruction of shelters and
prefabricated units.”

Architects & Transitional Shelters

The following reviews shelter products currently in use in crises.

1. Inter Shelter

This type has been used in many countries such as Japan, Alaska and United States.

Designed by Craig Chamberlain. Chamberlain incorporated the latest composite technology
from aerospace industry to make it light weight. It is made with structural fiber glass which is
fire resistant.

This unit like other examples of its type is lightweight and can be assembled in a few hours by
three untrained people.

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28 A real-time evaluation of UNHR response to the Syrian refugee emergency, July 2013, United Nation High
Commissioner for Refugees, Policy Development and Evaluation Service

29 Syria Regional Response Plan, United Nations Publications; January to December 2013, P. 192
The units have a life expectancy of over 30 years based on manufacturer information.\(^{30}\)

Area: 196 square feet  
Cost: $7,000.00  
Locations: Japan, Alaska, Australia, USA

These shelters are cheap and fast to build. They enable organizations to provide transitional housing for a high number of people in a short amount of time. Designers and manufacturers used innovative solutions to make them cheap and environmentally friendly. They provide for the basic needs of occupants; a shelter to sleep, cook and eat.

They have dignity and provides safety for occupants. Countries in which, they have been used are among advanced countries like Japan and the United States.

What is lacking in this type of shelters is community and social activities of their occupants. There is no thought of shaping shared spaces with these units. They are mostly a final product of an invention, but not a procedure of shaping habitation and community.

\(^{30}\) http://www.intershelter.com/emergencies.html
Looking at these shelters brings comparison of Maslow’s hierarchy of needs and Procrustean fit theory to mind. They provide common needs of the species, but they don’t seem to represent any cultural values and needs.

These units can be modified by the users, so they are decent in providing for the basic needs of their occupants, and they have a communal table for a family to use, but I am wondering is there any shared and communal spaces between different units.

2. Palette House Shelter

The palette house designed by I-Beam is made of recycled wooden shipping palettes. The design was used in Somalia and Kosovo. I-Beam sought a design that was initially transitional and then may become permanent.

Area: 16’ x 16’ (Each unit needs 100 palettes)

Location: Somalia & Kosovo

Cost: $500.00

Designer and manufacturer of palette house as well, considered mutual values of species in his design. It is another, design that is reminiscing of Maslow’s hierarchy of needs. It fulfills basic needs, such as safety and dignity, but it doesn’t represent any cultural adaptivity.

Palette house again is a final product not a process of inhabiting. It doesn’t represent any thought of community and shared spaces among occupants and neighbors.
Organizations & Transitional Shelters

1. Centre Pole tent for cold climates.

Description

This significant design feature of this tent is its high walls, providing ample headroom.

Climate

Originally developed by UNCHR over a number of years for cold climates with it’s thick cotton canvas and covered openings.

Material Involved

Cotton or poly cotton canvas, Centre pole galvanized steel, painted steel. Side poles bamboo & cables.

Approx. Weight

120 Kg

Dimensions

Generally 4m X 4m. A double-poled version of 6m X 4m is also used. Larger versions are possible and have the form of a traditional military marquee.\(^3\)

Although there are many types of innovative units designed by different designers and groups, the common kinds that are using by organizations in charge at disaster zones are tents. Tents are cheaper and easier to install and uninstall.

\(^3\) [www.shelterproject.org](http://www.shelterproject.org), p.14
2. Canvas Ridge Tents

Description

Canvas ridge tents are currently used by many agencies as emergency relief standard. These tents come in both warm climate and cold climate versions.

Material Involved

Cotton or poly cotton canvas, poles galvanized steel, painted steel or in some cases bamboo.

Approx. Weight

75-120 Kg depending on weather it is a single or double fly tent, with or without a cotton liner.

Dimensions

These tents are generally 4m X 4m or 3m X 4m

Agencies

This is the standard relief tent for many agencies. UNCHR, UNICEF and World Vision.32

The other advantage of using tents at camps, is that they don’t cause land issues. Since one the big problems of hosting countries and disaster zones is land rights. Tents do not need land right but any construction like the innovative examples of previous section, need to deal with land rights.

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32 www.shelterproject.com, p. 13
What already exists at refugee camps

After studying different aspects of built environment that play an important role on human beings’ behavior and concepts of space, and also studying some of the innovative designs for shelters, and examples of transitional housing used by different organization in different countries and climates, I would like to provide an overview of the current refugee camps to the reader of this study.

• Zatari Refugee camps, Jordan, 2013

These are some of the containers that brought to Zatari refugee camps.

Area: 28 Sq m
Cost: $2,000
Weight: 3200 kg
These containers are Syrian homes, which although they are superior to tents in some aspects; they do not show their occupants’ silhouettes at night, they have better insulation for cold and warm weather and keeping them clean is easier compared to tents- but they are single units that do not consider shaping communities and shared spaces for social activities. They are prefabricated units and occupants do not have any role constructing them so it will decrease their sense of ownership and attachment to their new places. They do not reflect the refugees’ culture, as you look at additions refugees added to their containers; creating privacy and entrances with pieces of fabric they have available (Image 29) or using back of the containers as their covered backyards, so residents have made adaptation.
Image 46 is an interior view from containers, and image 48 shows inside a tent at Syrian refugee camp.

Sleeping pattern, cooking pattern and other daily activities’ pattern are the same in both tents and containers.
• Syrian Refugee Camp, Lebanon

This is an image from a Syrian refugee camp in Lebanon; the residents of the shelter tried to bring in objects like a tree and a bird cage to make it look like home. Objects like a tree and a small bird cage make a place feel more like home. There are simple features that can provide for people to make a place homey for them.
This image is from refugee camps in Lebanon; the only evidence of people living in this area are the cords and washed cloths on them.

Refugees do not participate in making them or installing them, and designers and manufacturers of these shelters did not look at them as places which are shaping communities, as places people are going to inhabit. One could not find mutual values and features of the hierarchy Maslow talks about, or cultural and background considerations in these types of shelters. One cannot find aspects that create feeling of place attachment for the occupants of these units.
Social and Personal Behavior in Syrian Dwellings, Culture & at Refugee camps

Social behavior is one of the important cultural factors in Middle Eastern dwelling and Syria. A house is representative of a society and its culture.

Traditional Middle Eastern housing consists of “court yard-house”. Court yard- houses consist of private spaces (bedroom) and public spaces (guest room), kitchen and a court yard in the middle.

There is a sequence of Middle Eastern culture and family and social construction in court yard house layout. It consists of front and back sections. The front side is where social interactions happen, and on the inner part is where they sleep or pray. There is a privacy for the inside parts of the house, and it is created with layering.
The court yard

Courtyard houses remain in many traditional houses in Middle Eastern. They are common in hot and dry climates, creating privacy for their occupants and defining a territory for their residents and their introversive life pattern.

I want to highlight influential features of courtyard houses in the Middle East. Since courtyard houses’ morphology is one the best ways to look at Middle Eastern everyday life pattern and their social, individual cultural norms.

- It’s lay out is appropriate for hot climates; with maximizing shading.
- Main entrances designed in a way, that who is at the front door cannot see private spaces in the house.
- Plants and water features help to cool the environment and also they are symbols of heaven in Islamic culture.
- In Syrian culture, family and women gatherings have an important role in their family ties. They usually have family gatherings on Thursday nights in their court yards and women’s gathering in their private part of the house.
- The Rawaq is an important part of Middle Eastern houses, it is a covered space like a gallery that connects a series of aligned rooms; This is one of the aspect that one could see clearly in Syrian refugee camps; they created some type of covered galleries in front of their shelters, to create privacy for their families.
- The Iwan is an important covered open space, it is located on a platform; at north façade so it gets summer breeze. Iwan is a place in court yard houses for evening events and family gatherings.
- In court yard houses, windows face inside the courtyard rather than street to create more privacy.

The following images show and compare Syrian’s previous and current lifestyles at refugee camps.

I looked at current conditions of camps and found out how they inhabit their transitional shelters and then put an analogous condition of the same activity in their previous lifestyle.
Looking into images from camps and comparing them with the images from their previous lifestyles; one sees that they are seeking their previous life styles in their new dwellings.
When people inhabit a place; they need to socialize with their neighbors. In sadness and happiness, people want to get to know their neighbors and share experiences and their feelings with them.
Sexual and gender violence is an important issue in Syrian refugee camps at Jordan.

“In 2013, reports revealed an increasing prevalence of forced and early marriages in IDP communities, where families have resorted to it as a negative coping mechanism due to general insecurity and lack of conflict or in collective shelters are among those who have been largely affected. In the present circumstances, families believe that early marriage is a necessary means of protection for their daughters in the current situation.”33

Women have to cover completely to get out of the tent to do the simplest activities such as hanging cloths on the cords and cooking.

Most of the population in Syrian refugee camps are children and women, because men are fighting in Syria. All refugees have to struggle for their daily life, and women have another struggle due to their sex. They spend most of their time to protect themselves from different kinds of abuses. Most of them feel unsafe to leave their homes; they even do not feel safe inside their places due to domestic violence.

33 A year in review, Syria Report, UNCHR, 2013. P.132
Syrian courtyard houses have inward design; everything happens around interior courtyard. There is an entrance and public places in front of the house which separates outside from inside. But how about transitional shelters; do they match this public-private and veiled lay out?
How does this lay out match their culture? Do the providers of these type of housing know who are the people that are going to inhabit there?

Next image show how the users of these transitional shelters tried to make some adaptation so they match their lifestyle.
Overview of Analytical Drawings

Analytical Visual Studies

Visual analysis and studies based on images of current conditions of refugee camps shed light on people’s cultural and behavioral adaptation to the new place.

These investigations show that both private and public spaces are needed. After exploring the current situations of refugee camps and doing analytical investigations, I concluded that the residents have to adjust their physical and behavioral activities, to maintain their previous lifestyles. This is the Procrustean fit of their lives to their ready-made shelters.

Drawings show the contradictions between intended usage and actual usage that is happening at camps. They reveal residents cultural needs and how they adapt their physical and behavioral activities to adjust to their previous private and social background.

The exploratory drawings on Zatari refugee camps represent dissatisfaction of residents where they were unable to change the condition of their tents, and they aren’t able to perform certain activities inside or outside the space; since there are certain activities in each culture that need to happen even in constrained situations.

My drawings highlight the fact that each culture has its own values, and personal/social behaviors which are coming from its background, these values are always reflected on their feeling to their space and dwellings, as well as on their behavioral adjustments.

Definitely in the sensitive transitional period of post disaster survivors it is important to consider private and social behavior although it is a constrained situation.

A flexible built environment would contribute to recovery process in the transitional period, since residents are able to change their place considering their own values and cognition of the space.

These drawings investigate the relationships among built environment, culture and activity patterns through observations of the refugees’ adjustments to their social and private interaction with their environment.
Metal cables of the tents shape a space between tents. Images from the current camps show that adults and children based on their height and body measurements make use of this in-between spaces. In my drawings I explored how being or not being these metal cables affects on the behavior and movements of adults and children at refugee camps.

With these cables there is already a space between the tents that refugees use it as their shared space. Sometimes women use them to dry their washed cloths on them, sometimes children use them to jump and play with them.

At same time I thought how their existence might change peoples movement; with their presence mostly people make a zig-zag move to get from one space to another, but if they weren't there this walk would be a straight line.

May be it kind of creating security at the back of their tents too, since if a stealer wanted run away, these cables make it difficult for him to run; But if a fire happens, then running away would be difficult for residents.

I was exploring how people inhabit these in between spaces, the way an adult sits underneath these cables clearly is different than the way a child sits in between these cables, and they evoke a different feeling to an adult than to a child.
In this drawing I explored tents from outside during night and day.
During night, residents shadows from inside completely reveal activities of the inside, which
doesn't match an Eastern Muslim culture.
During day time, you could only see beige tents which reveals dust and dirt due to weather dust.
By looking at the night shadows from the tents, you can tell a story of life during nights at camps.
You can see residents silhouettes and what are they doing inside their place.
This is something that might be interesting in other culture but not a Middle Eastern culture
which due to the religion and tradition is a close and veiled culture. In the images you can see
how refugees covered their tents from inside with cloth pieces, to improve privacy.
Movement in between cables

It is interesting how colors of tents change children and adults. Movements in between stars may be without chores moments. Now tent & tent where linear but with recent entrance, it is more linear. May be tent creates a fun pathway, or may be they are obstacles. What ever way has I. First way are different, the children and adults.
These drawings explore adults and children movement between tents, considering their height and width. Their body affects the way they inhabit and use the space.
The yellow lines and squares are adults and children average measurements. It is clear that the way adults and children walk, sit or even feel these spaces are different. My interpretation is that these spaces are more appropriate for children bodies rather than for adults bodies and it also creates a playful sense for them because they have to jump or walk in a zig-zag pattern to be able to move between cables. It is easier for them to play, walk and sit; while walking is more difficult for adults because they have to bend.
I also considered disabled children or adults, who are unable to move between these cables.
I interpret the space with higher heights in the tent as a more constant and practical space. Although maybe spaces both durante tenta are open for innovation and having silent moments, since I can find any separation between different rooms in that space.
Different parts of tents have different heights, the height difference creates different feeling inside the tent. The parts which are shorter creates a more cozy feeling and also make it more private. It might motivate sadness or happiness. Parts with shorter height also might create a spot for sleeping, and the parts with longer height are proper for other activities, such as family gathering and praying.

By looking at this image, one realizes that those young children are able to move in the tent easier than their older sister, while movement of the father is more difficult based on his body dimensions.
Looking into image, made me think how this family set their dining table and how they remove it. Family gathering and dining together is a tradition in Middle Eastern culture. Considering adults height and tents height and setting this dining table, made me think of shortening and stretching in Procrustean Fit.

Looking into image, there is a column at the center of the tent, which they had to set this dining cloth around it.

This column is needed to keep the tent standing but thinking these people should eat, pray and sleep around it, makes one think if there was another lay out of tents for this culture.
How tents provide a space for a Muslim family to pray. 

Praying is a sacred activity that Muslims do 5 times a day. In Islam it is a necessity to pray 5 times a day, it is not an optional act. So Muslim family prays 5 times a day, if all the family members are at home, they pray together. It is recommended in Islam to pray in a plural way. Considering the need and desire to pray after crisis and in constrained situations for Muslims to calm down, having a spot where they can pray together sounds needed.

Images show that this is not enough space for them to pray together in their traditional style. There is a heater and a column in the middle of the tent, that make it difficult for them to pray together.
Looking into this transitional space, I drew a sleeping pattern on it; thinking about the Middle Eastern culture, one realizes this lay out doesn't match their culture. It is not normal for even the mother of a family to sleep with sleeping gown in front of her children, especially if they are boys. And if they have an adult girl in the family it is more difficult to sleep in this pattern or change clothes with her brothers and father.

I think sleeping pattern is one of the important aspect of inhabit process in a place which this image shows that it does not match the Religious and traditional values.

When one wants to provide dwellings for displaced people, it is worth knowing people and their culture who are going to inhabit in it.
Concept of Checker Tag.
Its metamorphic concept is a testament to its permanence. It is today as the most powerful integration of traditional forms and symbols put together by man.
These drawings look into Middle Eastern cities plan and compare them with Zatari’s plan. Thinking how Middle Eastern cities are designed to embrace their culture and hierarchies of privacy, also it provides shaping communities and safety, meanwhile in Zatari’s refugee camp, the linear design, make it difficult to create locality and community. Thinking about security in linear design it's easier to run away after doing a crime compare to core and circular design.

Looking into Zatari’s refugee camp, brings Levittown concept and lay out, in mind. Levittown has designed by William Levitt and his family in 1948. It was a solution for immediate need of housing in post war years (1948). It consists of small, detached and single family houses for middle class families. It was a start for suburban housing in United States. Before Levittown, suburban was for elite families and expensive houses.

Levittown comes from rational setting of Roman. Roman setting is a beneficial way to control the land and big number of people. William Levitt and brought the idea of suburban life for middle class and poor families. Looking into Levittown, one realizes that important aspects of Levittown was shaping community in suburbs.

I compared, three different lay outs and settings in 3 different times; traditional urban settings in Middle East, Levittown in US (1948), Zatari refugee camp in Jordan (2014). Traditional cities in Middle East, had a core layout, which was the best lay out for their introvert culture.

Looking into Levittown and what happened to it during years, it supposed to be a community for growing number of middle class in the States, but now one can barely find houses that look alike, people changed them based on their own tastes and needs.

Zatari’s lay out looks like Levittown for people coming from a completely different culture. Zatari has a grid like setting with containers that are exactly the same, but we can see that refugees changed the outside and inside of their place base on the way they want to inhabit in them.
Cables which keep tents to stand, form a type of in between spaces. Although they are obstacles for convenient movements around the tents but users of the shelters turned them into shared spaces which allow activities like socializing and playing or the kids and women. 

Looking into daily activities that are happening at these spaces among the cables between tents, highlights the important role of shared spaces in shaping communities and in inhibiting in a place.

Women use these spaces to wash and dry their cloths, cook and at the same time chat with their neighbors. Children play with their friends.

With the simplest thing, which cause trouble for the movement of older or disable people, a shared space formed, that people use it in a way to fulfill their daily needs.
In Middle Eastern culture, people don't enter inside their places with shoes, it has religious and cultural reasons. Looking into Syrian camps shows that this aspect of their inhibiting a place back ground has a very high value in their culture; that they will fulfill it even the a constrained situation like living in a tent. Refugees create form of an entrance outside their tents with cement blocks to put their shoes there and at the same time prevent dirt and dust to go inside their places.

Image 19 shows that even in this shared tent, where they stay until they register their names in the refugee camp and get their transitional shelter, they created a small entrance where they can put their shoes.
I want to end this section with a quote from a Syrian refugee woman; Aysha Al Husseini, she explains what she misses the most. She says she misses the smell of home. The olives and grapes that grew outside her house, the apples, the rich earth; these are the smells of Syria, she says. The smells she longs for most since becoming a refugee.34

After exploring Syrian refugees everyday life and transitional housing through drawings, and looking at the places they are living, by the lens of Procrustean fit, I noticed what they are missing the most, is what they had in their previous life, and what they experienced as a home; one could name it memory or cultural background; they could be as simple as smell of fresh apples or as spaces to pray in the way they have to in their religion.

Fitness is a complex concept. Even in the most personalized designed spaces, people need to alter to fit into them, in severe circumstances like crisis, it is more difficult to achieve and provide even almost fit places for refugees to be able to fit their new place. Even though, looking at additions and changes that Syrian refugees made in their new places, one will notice that to create place attachment and place identity, facts that are from environmental psychologists like Proshansky, point of view, are important to provide for displaced people; there are needs and values that have to consider while creating space for survivors of a crisis.

Humans always seek environments that fit to her/his culture, activities and behavior. By looking into images of refugee camps, you notice that these camps do not fit the users. Refugees stretched to fit these shelters. Shelters do not match their prior behaviors, people’s usage of their space and dwelling.

Syrians are trying to adopt the shelters to their culture and their previous daily life pattern; they are trying to separate private from public space, they are trying to create veiled cooking spaces for their women, simple needs and values they want to be able to inhabit there.

My explorative drawing of current situations at camps shows that these shelters are not flexible to change. Syrians are battling to make these camps fit into their culture and behavior.

people to adapt to homes that do not support their cultures’ values and expected social processes (Altman & Gauvain, 1981; Gauvain, Altman, & Fahim, 1983)."\textsuperscript{36}

Syrian refugee camps as explored, do not match their residents’ culture and they are not designed dynamic or adaptable enough such that occupants can bring their culture and personality in them.

\textsuperscript{36} Journal of Environmental Psychology, January 2009, Place Attachment In a foreign Settlement, Ceren Bogac, P. 269
Lesson Learned From Investigatory Drawings

Social Interaction in Syrian Camps

At refugee camps, there are shared and social spaces that are shaped incidentally and intentionally. One could see, refugees use the space between their tents, shaped by cables of tents, to socialize; women to do their daily activities like cooking and hanging their washed clothes on the cables and at the same time to chat with their neighbors; or children to play with each other.

Flexibility of Shelters

Looking at shelters and adjustments refugees made to their shelters to match their culture, usage of space and daily life activities, I attempted to show and highlight in my drawings that flexibility and potential to customize a shelter is one of the most important features, small things but have big influences in inhabiting a place; like where to pray, where to sleep and where to enter or where to store. For instance, refugees created small entrances for their tents or containers, to separate public-private spaces to match their introvert culture. If shelters could be flexible enough people could be able to adjust it to their life pattern of their daily life, sleeping pattern, praying pattern and so on; people could adopt it faster and adapt to it faster.

Adapting to a New Space

Altman and his colleagues noted that it is difficult for people to adapt to homes that do not support their cultures’ values and expected social process (Altman & Gauvain, 1981; Gauvain, Altman, & Fahim, 1983)\(^{37}\)

People make strong attachments to the place in which they live with all the experiences and memories they have from those places. “Place attachment, develops slowly but can be disrupted quickly and can create a long-term phase of dealing with the loss and repairing or re-creating attachments to people and places.”\(^{38}\)

Syrian refugee camps show that it is a struggle for refugees to express their identity in their shelters, so the process of changing these shelters to home is slow, but still they are trying to dwell and inhabit their new places.

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\(^{37}\) Journal Of Environmental Psychology, Place Attachment in a Foreign Settlement, Ceren Bogac, January 2009

\(^{38}\) Brown & Perkins, 1992, P. 284
“People need to experience the environment as offering a pattern or a system of meaningful relationships and in order to achieve this they use their previous experiences and time.”39

As Tuan states: “Awareness of the past is an important element in the love of a place.”40

When we look at the refugee camps we see people trying to create a space which looks like their previous homes. They want to make their daily patterns like what they had and experienced before; if they were able to recreate their previous patterns of life and identity, they could feel more attached to these shelters.

People need to experience the environment as offering a pattern or a system of meaningful relationships and in order to achieve this they use their previous experience and time (Ittelson, 1960).

A study done by Anne Maas, on an Italian population in post disaster shelters after experiencing 1997 earthquake and losing their homes in Marche, showed that “20% of the population showed post-traumatic stress symptoms one year after the event.”41 This study compares survivors attachments and level of stress to two types of temporary housing; containers and wooden dachas, earthquake survivors who lived in dachas felt more attached, and were more satisfied, they also had fewer psychological stress symptoms and had better wellbeing.

My drawings also represent how refugees struggling to adapt to their new place, like how the cover inside their tents with pieces of cloth, so people from outside could not see their families silhouettes during night.

Miseries of everyday life

‘Miseries of everyday life’ is a book by Henry Lefebvr, who wrote a manifesto in 1947 and studies insufficiencies of the past. He criticizes everyday life through social and leisure activities.

He defines everyday life as a network of conditions and effect, as experiences and facts.

Syrian refugees are struggling for their simplest needs to adapt to their new place. Important and high valued actions such as praying, family gatherings and cooking is a struggle for them to do in its minimum standards.

39 Ittelson, 1960

40 Tuan, 1974, P.99

41 Journal of Environmental Psychology, Container vs. dacha: The psychological effects of temporary housing characteristics on earthquake survivors, Giovanna Caia, Fabrizio Ventimiglia, Anne Maas, 2010, P.61
Everyday life patterns are complex and instable, they are dynamic and have the potential to change; they have connection to possibilities of space. But at the same time, there are valued activities in each culture that need to happen even in different ways than the common ways; like praying, like family gatherings.

Private public Pattern

Middle Easterners have an introvert culture due to their religion. One sees the separation of public and private space in their residential houses’ settings and in their cities layouts.

Space pattern development in Syrian refugee camps shows desire for having public-private conditions with the simplest methods.

Entrance is an important element in Middle Eastern housing lay out, in their housing layouts there is entrance to prevent a stranger at front door to see inside the house; in refugee camps, refugees created a type of entrance with pieces of fabrics.

In Islamic tradition, people do not get inside the place with their shoes, due to their praying pattern, so they have a space outside their houses to keep their shoes and prevent the dust from going inside their places, in refugee camps, one sees refugees made this adaptation using cement blocks or any kind of fabric they had available to fulfill this pattern.
Conclusion

Creating previous everyday life patterns and habits for a community is hard to fulfill during crises. Investigating Zatari’s Syrian refugee camp’s current situations by my drawings, represented that there are needs and values that need to occur even in restricted conditions. I realized that there are certain values and habits in each community’s everyday life, such as praying and where to pray, cooking and where to cook, sleep patterns and gathering patterns which need to happen for them to be able to feel psychologically healthy. These are basic and simple needs, but to dwell in a new place and make emotional bonds to it, these basic needs should provide for displaced people in their new environment.

I realized that human beings try to form his environment, to embody his values to be able to make a home for himself and his family. Refugees adapt themselves and their daily activity patterns to their new place, to be able to fit to it, but what is fit is not certainly the best for them. The best thing is what does not hurt the user, but also what improves his situation; The concept of Procrustean fit, talks about what is fit and what is not fit for different situations and different species.

As my drawings show, different spaces facilitate different behaviors, and certain behaviors hold important meaning in each culture; in emergency conditions, people who lost their attachment and emotional bonds with their previous environment need to fulfill their cultural and behavioral needs, to be able to recreate that bond. As Tuan states: “Awareness of the past is an important element in the love of a place.”\textsuperscript{42} To make new bonds and attachments to a new space, the one of the way is to create a space which people can define by their background values.

Sometimes peoples’ needs and priorities fall into the hierarchy which Maslow’s defines, but sometimes it does not match with his pyramid. Some situations and some needs challenge Maslow’s hierarchy; for instance when people migrate from their country and home to become refugee in another space, the need of self- worth gets to a lower level of hierarchy than protection; they sacrifice the need of protection to achieve the need of self- worth.

People’s past experiences and activity patterns, is an important feature of their feeling and attachment to a new place. My drawings show what is missing in camps; what are the things that refugees add or change to their new places, if they have the possibility, to fulfill their everyday needs and values.

\textsuperscript{42} Tuan, 1974, P.99
Many critical issues still exist related to transitional housing, what are the differences between adaptation to a place and appropriateness of a place? How people develop relationships to places? How crises and losses affect the relationships between people and their physical environment? What are the relations between peoples understanding of a place and politics of a place? Finally further research is needed to explore how gender, age, social class, and race influence people’s relation to space. Clearly there is much to learn.
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