Assessing the impact of urban Syrian refugees on the urban fabric of Al Mafraq city architecturally and socially

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Abstract
Purpose – The purpose of this paper is to explore the direct and indirect impacts of urban Syrian refugees on the residential urban fabric of Al Mafraq city physically and socially. Physically means regarding architectural style and socially means regarding social cohesion and sense of community. Therefore, the research questions are: What are the main source of tensions between the urban Syrian refugees and Al Mafraq host community that hinders the social cohesion? And what is the impact of the urban Syrian refugees on Al Mafraq city socially and architecturally?

Design/methodology/approach – Different research methods were used to explore and provide a rich description of the direct and indirect impacts of urban Syrian refugees on Al Mafraq city architecturally and socially. Desk reviews, focus group discussions and semi-structured individual in-depth interviews were used to explore the social impact of the Syrian refugees on Al Mafraq city. In addition, a qualitative comparative analysis was used to explore their impact on architectural style and urban sprawl.

Findings – The results show that changes have occurred on the character of the residential environment resulting in a conversion about the urban fabric of Al Mafraq city both physically, in regard to architectural style, and socially, regarding social cohesion and sense of community. Physically, the city suffers from a decline in the uniformity of the built environment, resulting in a partial loss of its identity as a homogenous place with calm, cohesive residential neighborhoods. On the other hand, the social fabric of the city is losing its homogeneity and solidarity, causing a decline in the sense of community, social cohesion and levels of trust, and a rise in the social tension leading to severe conflicts among community members.

Practical implications – The different stakeholders should express high concern for the different sources of tensions between the urban Syrian refugee and Al Mafraq host community. They should foster formal and informal communication and promote dialogue between the two communities to improve social relations and reduce the tension between them. The consequences of Syrian asylum on hosting countries present an issue that has been vastly studied by several scholars and international agencies. Research, reports and surveys all denote the negative impact of refugees, especially in cases where resources are scarce, as is the case with Jordan. As a part of such consequences, Al Mafraq city is moving in the wrong direction as a result of the increasing flow of refugees.

Originality/value – The current discourse about the influence of urban refugees on social and architectural style among host communities lacks veracity. Therefore, the significance of this research is offering an alternative academic view to enrich current knowledge and encourage further discourse research.

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about urban refugees. In addition, this research is a comprehensive and double focused, not just on social inclusion and tensions but on urban environment and architecture. This research is useful for architects, urban designers and planners, sociologists, policymakers and humanitarian and peace-building practitioners in the urban non-camp complex emergency setting.

Keywords Sense of community, Social interaction, Place attachment, Architectural style, Residential neighborhood, Urban Syrian refugees, Social solidarity, Social cohesion, The city of Al Mafraq

Paper type Research paper

Introduction and literature review
Urban refugees and host communities
Almost half of the world’s 10.5 million refugees reside in urban areas, whereas only one-third reside in camps (The United Nations High Commissioner of Refugees: UNHCR, 2009) (UNHCR, 2009). Refugees move to cities in hopes of finding security, sustenance, economic independence, better services and living conditions, and a sense of community (Pavanello et al., 2010). Furthermore, refugees usually prefer living in residential neighborhoods in cities, because they are quiet and pleasant places to live that tend to have more access to livelihood, intimacy and opportunities of work (Walker and Hiller, 2007).

In recent decades, developing countries that receive sudden and large numbers of refugees often face the problem of overpopulation, which leads to higher competition for resources with the host country that already suffers from hard-pressed budgets and scarcity of resources, as well as public and medical services. In addition, hosting countries may suffer from economic growth, changes in political and social structures, tensions among host communities, environmental degradation and an increase in crime and insecurity, especially within urban areas where the majority of refugees reside (Gomez et al., 2010; Baez, 2011; Fakih and Ibrahim, 2016).

Urban refugees prefer to live in the same neighborhood to have some control over their security problems (Kobia and Cranfield, 2009). They do not depend solely on international assistance. They depend on their family support, as well as on their own resources. The assistance is sparse and insufficient to meet basics need. Therefore, they exercise a high degree of self-sufficiency to get better services (Stevens, 2016). As refugees settle down, they become part of the urban context. They accordingly affect and are strongly affected by urban life and social context positively or negatively in a way or another (UNHCR, 2009; Walker and Hiller, 2007; Clark and Robey, 1981).

Urban refugees can bring benefits, not just burdens. They may contribute to the social and economic development of their host community by expanding markets, developing urban fabric, importing new skills and creating transitional linkage. In contrast, their existence causes a significant increase in food and fuel prices, creates pressure on the housing market and public services, creates pressure on the urban and community infrastructure and creates higher unemployment for the native, local community (Kobia and Cranfield, 2009).

Refugees need spaces to live, interact and express themselves, which is considered as an essential human fundamental need for integration into a society. The uses of open public spaces bring host community and refugees together and allow social exchanges (Moulin-Doos, 2013). Three elements can define the context of the social life of urban refugees: the physical setting of the place, the social environment and the activity surrounding it (Pretty et al., 2006). The refugees have felt the need to express their community identity through the creation of their own space and place. They try to create many similar spatial characteristics
of their homes left behind (Mazumdar et al., 2000). Refugees’ lifestyle in their country of origin may determine where refugees resettle (Kobia and Cranfield, 2009).

Local integration, resettlement and voluntary repatriation are recognizable solutions of the refugees’ problem worldwide (Crisp, 2004). Resettlement is the transfer of refugees from a state in which they have violence or war to a third state that has agreed to admit them with refugees’ rights or permanent residents (Pavanello et al., 2010). Voluntary repatriation is returning to home country, which is difficult during the bad conditions and the absence of safety (Crisp, 2004). Therefore, local integration between refugees and local host communities is the best solution in most cases.

Place attachment and identity

Place is the main factor of the refugees evolving (Burnett, 2013). Place is a fundamental component of personal identity, which enables people to describe themselves in regard to belonging to a specific place (Hernandez et al., 2007). Place identity is a substructure of self-identity consisting of memories, emotions, ideas, meanings, attitudes, feelings, preferences, values and conceptions of behavior and experience that occur in specific places (Anton and Lawrence, 2014). Community identity is grounded in both social integration and environmental experience (Mazumdar et al., 2000).

Place attachment is defined as an emotional bond that develops the relationship between people and their environment (places). Several authors have considered place attachment and place identity as the same concept (Hernandez et al., 2007). People often form a place, and in some ways, people are also formed by places. Place is more relevant to physical appearance, feelings and meanings. The refugees’ identity and cultural heritage in the country of origin will be created in the new place of residence and linked to what type of setting they originate from. Therefore, if the refugees are moving to the similar physical places of their country of origin, the coping process will be easier and quicker, and vice versa (Järlind, 2015).

Refugees may lose their social and cultural structure including their colloquial and dialect language, values, attitudes, self-identity and support networks, which may cause cultural bereavement. The refugee continues to live in the past, feels pain if memories of the past begin to fade, finds the past images intruding into daily life, thoughts of death other than the survivor feeling and yearns to complete obligations of abandon culture and homeland. There are four phases of mourning, namely, numbing, yearning and anger, disorganization and despair and reorganization (Bhugra and Becker, 2005).

Urban refugees’ identities are multiple, dynamic, flexible, fluid and highly dependent on context (Guay, 2015). Refugee identity begins to shift after leaving their country of origin (Hiruy, 2009). It is formed not only by internal feelings, beliefs, values, customs, food and entertainment preferences, religion, rites of passage, language, dietary habits and leisure activities, racial and ethnic identity, but also by resettlement practices, forced migrant policies, cultural traditions and the economic, political and social conditions of their host country (Burnett, 2013; Bhugra and Becker, 2005).

Once urban refugees settle into their host country, they try to maintain their roots, recreate the same environment they left behind and maintain the same types of social and cultural activities that they had in their country of origin by looking back to their roots/home/place, traditions, customs, and social relations. This reformation may have positive or negative influences on their host community (Hiruy, 2009). The refugees’ cultural identity may be lost within the host community. Both refugees and host community culture may change. Changes in attitudes, family values, generational status and social affiliations can occur in both the majority and minority cultures as the two interacts; however, typically one culture dominates (Bhugra and Becker, 2005).
The contact and interaction between cultural identities, between refugees themselves and with host communities, may lead to assimilation, rejection, integration or deculturation, which means the minority culture loss of its cultural identity. The conflict between refugees and host communities may lead to a sense of cultural confusion, feelings of alienation and isolation, depression and mental health problems in vulnerable individuals (Bhugra and Becker, 2005).

Social interaction and communication

Social interaction is the most important factor shaping human behavior; it gives meaning to our existence and helps us understand ourselves and others, our environment, our feelings, our behaviors and actions, and our worldview. It enables us to manage our relationships with others and interpret and interact with our environment (McFarlane, 2012). Social interaction is essential for analyzing the relationship between human perceptions, attitudes, behavior, and values, preferences and beliefs about the world (Carvalho, 2009).

Social interaction is central to understanding the nature of social life and how society works. It is the basis for social cohesion, solidarity, identity, collective behavior and shared values (Bruhn, 2009). The existence of social bonds refers to social networks (Stevens, 2016). Social networks are complex webs of internal, interconnected relationships that bond and bridge groups together (Guay, 2015) based on relational identities, nationalities, ethnicity and familial ties (Stevens, 2016). Social interactions and relationships lead to strong social ties that affect the quality of life among communities (Bruhn, 2009).

Refugees’ behaviors are shaped by their interaction with the world around them (Hiruy, 2009). Using public spaces, such as parks and pedestrians walkways, can promote community identity, social contact and interaction (Rogers and Sukolratanametee, 2009). Good social communication between urban refugees and host communities creates a heightened sense of community, decreases the risk of urban problems and contributes to an upgrade in accessibility to public services and feelings of safety (Putnam et al., 2004).

However, social interaction between refugees and host communities is not guaranteed because of an expected risk from both sides. Local residents can be satisfied with their neighborhood without being attached to it and without socializing with others. High neighborhood risk exposure may lead to weak psychological connections between individuals, families, neighbors and community (Anthonya and Nicotera, 2008).

Jordan and refugees

As shown in Figure 1, Hashemite Kingdom of Jordan (Jordan) is a small middle-income country located at the heart of the Middle East with a population of 9.6 million people with political stability. The history of asylum in Jordan is long and dates back to the early days of the establishment of the Kingdom. Jordan hosts the second largest number of refugees compared to its population in the world (UNHCR, 2018). Refugees from over 40 nationalities currently reside in Jordan. They form not less than 20 per cent of the total Jordanian population according to recent surveys (Department of Statists: DOS, 2015) (DOS, 2015).

Since the beginning of the Syrian crisis, the major event of the Arab spring, more than three million refugees have crossed borders and entered into their immediate neighboring countries in search of security and safety. More than 1,265,000 of them enter Jordan (Ministry of Interior: MOI, 2014) (MOI, 2014). They constitute 46 per cent of non-Jordanians living in the Kingdom and 13.2 per cent of the overall population (DOS, 2015). Jordan is a geographically small country with a small population but Syria is much bigger and populous country and that the immigration is from a larger to a smaller country.
As shown in Figure 2, the United Nations High Commissioner of Refugees (UNHCR) office in Jordan reported that there are only 657,628 Syrian refugees registered in the Jordanian governances (Mercycorps, 2018). Among those refugees, nearly 20 per cent live in refugee camps, whereas the remaining 80 per cent have self-settled in urban areas in rented accommodation. A total of 68 per cent of Syrian urban refugees fall below the Jordanian poverty line of Jordanian Dinar 68 per month (UNHCR, 2018). The largest amounts of refugees reside mainly in cities of the northern region specifically in Al Mafraq city (Fakih and Ibrahim, 2016).
Al Mafraq governorate: a host city
As shown in Figure 3, Al Mafraq Governorate located on the northeast side of the Hashemite Kingdom of Jordan, 72 kms north of Amman. It is located adjacent to the southern borders of Syria. It covers the second largest area in the Kingdom (29.6 per cent of the total area). The local population of the governorate is 385,500. It has the second smallest population density of 11.05 person/km². It consists of 18 municipalities, as shown in Figure 4. Community structures in the governorate depend on the Bedouin tribes and kinship ties.

A total of 208,000 Syrian refugees live in Al Mafraq Governorate (inside and outside of the Zaatari camp) (MercyCorps, 2013; DOS, 2015). Al Mafraq city, the capital and largest urban settlement in the governorate, hosts 90,000 of them, which is equivalent to local Jordanian inhabitants (Wazani, 2014), as shown in Table I. Moreover, it is believed that Al Mafraq city hosts more than this number, as many refugees cross the Jordanian border and enter into the city without registration (MercyCorps, 2013; DOS, 2015; Wazani, 2014). Refugees are coming to Al Mafraq Governorate from all parts of Syria to Jordan: from the surrounding area of Damascus, Homs, Hama and Aleppo, and from northern and southern Syria. Few reliable data are available on their exact geographic–demographic distribution, but most of them are from lower- and middle-class Sunni Arabs (Bank, 2016).

Problem statement
Al Mafraq is a small city with a special urban character created by an intimate architectural and social fabric. It is a poor city with limited local resources and high levels of domestic unemployment (MercyCorps, 2012). Before the Syrian crisis, the residential neighborhoods in Al Mafraq city were based on kinship or friendship relations. Therefore, the presence of
strangers or teenagers, particularly girls, in the streets or between houses during night and evening time was uncommon. Houses were partially similar in each cluster and constructed with one or two floors. Roads were planned to serve all residents; therefore, people were strongly connected as a community, and everyone knew each other. The city urban fabric was not perfect, but it was homogenous and fit with local people needs.

The influx of Syrian refugees has equaled to or exceeded the numbers of the native population. The city has become overloaded, and it is no longer able to absorb the burdens of newcomers (Ministry of Planning and International Cooperation: MOPIC, 2015) (MOPIC, 2015). This situation has caused a considerable deterioration in the amount and level of delivered services. In addition, it raises competition between local Jordanians and Syrians in
the labor market and basic living necessities. Moreover, it propels the development of the city on all levels, contributing to the physical growth of the city. Accordingly, it entails a housing crisis resulting from a deficit in the amount of supply compared to the high demand, particularly of affordable housing (Alshadfan, 2015).

In addition, because the vast majority of Syrian refugees (93 per cent) live in apartments as shown in Table II, Jordanians express on their deep disappointment over the housing situation. The Syrian crisis exacerbated the already existing shortage of affordable housing in Al Mafraq city. Some rental prices rose to six times their pre-crisis rates, whereas average rental prices nearly tripled which affecting both the newly displaced people and the local population (Francis, 2015; REACH, 2014a; MercyCorps, 2013). It is estimated that new construction could have resulted in an increased housing supply of 3,700 to 5,600 units cater to roughly 25,900 to 39,200 Syrian families (MOPIC, 2013).

The lack of adequate and affordable housing has forced the majority of Syrian refugees and some Jordanian natives to seek other alternatives to fulfill their need for shelter. This includes living in substandard accommodation and unfinished houses, which is often characterized by earth floors, missing internal doors, broken windows, poor ventilation,

<table>
<thead>
<tr>
<th>Table I. Presence of urban Syrian refugees in municipalities of Al Mafraq Governorate</th>
<th>Source: Wazani (2014)</th>
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<tbody>
<tr>
<td>Municipalities</td>
<td>Population</td>
</tr>
<tr>
<td>Greater Mafraq (Al Mafraq city)</td>
<td>90,000</td>
</tr>
<tr>
<td>Al Manshiah</td>
<td>12,000</td>
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<tr>
<td>Rehab</td>
<td>23,000</td>
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<tr>
<td>Bal'ama</td>
<td>19,500</td>
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<tr>
<td>Zaatari &amp; Manshiat Solta</td>
<td>23,500</td>
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<tr>
<td>Al Hussein Bin Abdallah</td>
<td>16,000</td>
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<tr>
<td>Hosha</td>
<td>10,000</td>
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<td>Baselah</td>
<td>7,500</td>
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<tr>
<td>Sirhan</td>
<td>22,000</td>
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<tr>
<td>Khalidiya</td>
<td>30,000</td>
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<td>Salhiyah and Nayfah</td>
<td>16,000</td>
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<tr>
<td>Um Al Jimmal</td>
<td>25,000</td>
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<tr>
<td>Sibha and Defyaneh</td>
<td>20,000</td>
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<tr>
<td>Um Al Quaitain and Mkaitfeh</td>
<td>15,000</td>
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<tr>
<td>Deir El Kahef</td>
<td>12,000</td>
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<tr>
<td>Bani Hashem</td>
<td>6,000</td>
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<tr>
<td>Al Safawi</td>
<td>4,000</td>
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<tr>
<td>Ruwaished</td>
<td>7,000</td>
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<td>Source: Wazani (2014)</td>
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| Table II. Types of shelters used by urban Syrian refugees outside camps in Al Mafraq city | |
|---|---|---|
| No. | Types of shelters | (%) |
| 1 | Basement | 1.6 |
| 2 | Communal center | 0.2 |
| 3 | Flat/Apartment | 92.7 |
| 4 | House | 1.2 |
| 5 | Mud-House | 1.3 |
| 6 | No Shelter | 0.2 |
| 7 | Other | 1.2 |
| 8 | Tent | 2.6 |
mold, outdoor bathrooms and informal, temporary, overcrowded housing units. In addition, families are resorting to living in temporary structures with limited access to basic services, living in spaces not meant to accommodate human beings such as storage and retail spaces, and moving in with other relatives under one shelter (Norwegian Refugee Council: NRC, 2014) (NRC, 2014; Alshadfan, 2015; MOPIC, 2015). When more than one Syrian family is living in a single, rented place, this causes a burden on garbage collection, water, electricity consumption and sanitation (United Nation Development Plan: UNDP, 2014) (UNDP, 2014).

Hence, new residential buildings are appearing haphazardly in the city. The new buildings ignore the existing urban fabric due to the absence of any planning or housing strategy (UNHCR, 2013). Currently, most professional workers in the construction and building sectors are comprised of Syrian refugees from different cities in Syria. They carry their previous knowledge, perceptions and experience with them. They bring different construction elements, principles and techniques, and use them in their work, which may lead to chaotic architectural characteristics within the city’s fabric that may negatively impact the urban context of the whole area.

Research justification and significance
The presence of the Syrian refugees is changing the demographical structure of Al Mafraq host community and contributing to ethnic changes. The variations in social habits and costumes have led to social tensions (Alshoubaki and Harris, 2018). The urban Syrian refugees are forming a demographic shift that causes a housing crisis, rapid and unsustainable urbanization, a decline in community solidarity and losses in the fabric and traditional architectural characteristics. The growing demand for housing and rapid expansion transformed the city physically, spatially, socially and architecturally, and caused a change in the original behavior patterns of the host community (Alshadfan, 2015). The emerging tensions between refugees, host communities and local administrative authorities cause social instability and social fragmentation. The main challenge is how to foster social cohesion to decrease the social tension between them within the urban context because social tension has the potential to create a secondary conflict within the host community (Guay, 2015).

The current discourse about the influence of urban refugees on social and architectural style among host communities lacks veracity. Therefore, the significance of this research is offering an alternative academic view to enrich current knowledge and encourage further discourse research about urban refugees (Hiruy, 2009). In addition, this research is a comprehensive and double focus: not just on social inclusion and tensions but on urban environment and architecture. This research is useful for architects, urban designers and planners, sociologists, policymakers and humanitarian and peace-building practitioners in the urban non-camp complex emergency setting.

Research purpose and questions
The purpose of this research was to explore the direct and indirect impacts of urban Syrian refugees on the residential urban fabric of Al Mafraq city physically and socially. Physically regarding architectural style and socially regarding social cohesion and sense of community. The authors chose not to engage with religion because it is too charged to engage with, it could be a source of conflict and identity politics, sensitivities, etc. Therefore, the research questions were: What are the main source of tensions between the urban Syrian refugees and Al Mafraq host community that hinder the social cohesion? And what is the impact of the urban Syrian refugees on Al Mafraq city socially and architecturally?
Research methodology

Different research methods were used to explore and provide a rich description of the direct and indirect impacts of urban Syrian refugees on Al Mafraq city architecturally and socially. Desk reviews, focus group discussions and semi-structured individual in-depth interviews were used to explore the social impact of the Syrian refugees on Al Mafraq city. In addition, a qualitative comparative analysis was used to explore their impact on architectural style and urban sprawl, as shown in Figure 4.

A desk review of reports, researches and studies dealing with urban refugees was used to collect and analyze data from existing resources and define the factors delineating the impact of urban refugees on the host communities architecturally and socially.

The sample size for qualitative studies using in-depth interview should generally contain 15-30 interviews (Marshall et al., 2013). In this research, 52 individuals participated in semi-structured in-depth interviews discussions: 25 were Jordanians and 27 were Syrian refugees. In addition, three semi-structured interviews were conducted with three key persons concerned with the Syrian Refugees crisis in Al Mafraq as a sort of focus group discussion: the project manager of Mid-Cities Humanitarian Aid and Relief, Peter Laffoon, the Mayor and the manager of Al Mafraq Municipality. The individual interview concentrated on each individual's experience while the focus groups were mainly concentrated on the collective experience.

Snowball-sampling techniques were used to collect individuals for interviews. Individuals were asked if they were interested in participating voluntarily in the research. Once agreed, they asked whether they could nominate others to join the two-way conversation (Ruane, 2004). The participants were presented different societal components including males, females, youth and elders. They have covered an age range from 10 to 75 years. This technique allows the interviewer or interviewee to diverge to pursue ideas or responses in more detail.

This research followed a strict research protocol to ensure the privacy and confidentiality of the participant. Participants were informed about research objectives and significances before the interview. They also were informed that their identities would not be revealed at any time during the research process. In addition, they were informed that they were free to withdraw at any stage of the interview.

To ensure the quality of the data, the questions of the focus group discussion and individual interviews were designed according to the research aims and objectives (Mason, 2002). They were designed to generate data and assess several indicators, like forced displacement, place attachment and identity, resettlement, participation level and cooperation, public safety and human security, trust, social interaction networks and communication, usage of public spaces, sharing social activities and sense of community. Avoiding jargon, the researchers used simple questions with a logical flow to allow participants to share their experiences easily (Mason, 2002).

Interview questions covered a range of issues. Urban Syrian participants were asked to comment about how they feel about their country of origin, place attachment and belonging. They also asked about their current living situation as urban refugees, legal status in the country, future intentions, rights, hospitality from the hosting community, community safety, relationships between the hosting community and Syrian refugees, municipal capacity to deliver basic services, the effects of cultural and social norms on both hosts and refugees, access to affordable quality housing, economic competition over jobs, the fairness and roles of distribution from international aids, equity and corruption. Moreover, participants were asked how past emotional and place attachments affect the ability to make new places and develop a new sense of belonging.

Focus group discussions were conducted in two languages, Arabic and English, whereas individual interviews were conducted only in Arabic. The discussion was guided, monitored
and recorded by researchers. All the conversations were transcribed and analyzed by focusing on the key points and themes that describe the social cohesion indicators.

The emerging themes developed in four phases. In the initialization phase, the researchers read the transcriptions, highlighted the meaning units, coded and looked for abstraction and keywords in participants’ account, and they wrote reflection notes. In the construction phase, the emerged themes were classified, compared, labeled, defined and described. In the reflection phase, the themes were related to established knowledge. In the final phase, the storyline was developed (Vaismoradi et al., 2016).

Moreover, qualitative comparative analysis between architecture style and urban sprawl before and after the influx of Syrian refugees was used to explore the impact of the refugees on architecture and urban context. Architectural façade design elements are the most publicly visible evidence of the transformation practices. Design elements such as the use of color, masses, signage/graffiti, balconies, use of window dressing and display, design, size and the standard of repair and other ornamental conditions deviating from the norm signify these alterations (Quayle and Lieck, 1997; Robbins, 2001). Therefore, the comparative analysis depends on these criteria.

Direct field observation was used to gather the primary site data through close visual inspection of an Al Mafraq’s urban environmental setting and sprawl. In addition, it was used to improve our understanding of places and people in their natural setting. The researchers’ roles were asking, watching, taking field notes, photographs or videos, images, and drawings. The researchers, at their own cost, created and drew the figure and ground image of Al Hashimi neighborhood, as an example, before and after the crises to define and analyze the physical urban sprawl in the city. Al Hashimi neighborhood was chosen because most of the urban Syrian Refugees in Al Mafraq city are concentrated in it. They live in rented apartments in both old and new residential buildings.

To ensure the validity of research, the research proposal was presented to audiences at the academics of Al-Bayet University and the Hashemite University as well as with practitioners who are working with humanitarian INGO’s in Al Mafraq city. Most interviews were conducted Al Mafraq city in public places, including open spaces, pedestrian walkways and markets. Few interviews were conducted in homes. Primary and secondary data collection was carried out between May and September 2017.

Research results

The impact of urban Syrian refugees on urban sprawl

Urban sprawl is used to describe the undesirable dominant type of physical growth pattern and urban expansion, low-density occupation, segregation of land use and leapfrog development that rapidly reaches rural areas (Polidoro et al., 2012). It used to describe uncontrolled, unplanned and unsystematic physical spread or growth of developed urban areas (EEA-FOEN, 2016).

Leapfrog development occurs when developers build new housing projects away from existing urban areas and leave vacant land in between, because the land price is lower. It is characterized by a scattered development and contains commercial strip or ribbon development as a linear pattern along both sides of major arterial roadways (Holcombe, 1999; Johnson, 2001).

Urban sprawl is associated with ecological, economic and social effects. It leads to higher infrastructure costs for transport, water, electrical power, sewage and the loss of open landscapes, and so forth. Sprawl is a result not only of population growth but also of lifestyles that take up more space. An increase in urban sprawl is causing land use conflicts and poses a major threat to sustainable land use (EEA-FOEN, 2016; Holcombe, 1999).
The rapid increase of population and the lack of effective land use and urban planning in Al Mafraq city have promoted urban sprawl everywhere, as shown in Figure 5. Urban Syrian refugees increase pressure on existing housing and raise rent prices, which promote urban sprawl and turn over agricultural land to residential development.

As shown in Figure 6, the features most associated with urban sprawl in Al Hashemi Neighborhood, as an example, are: scattering of settlement areas, low-density development

Source: Alhusban et al. (2017)
poorly served by public transportation and other services, new commercial strip or ribbon development appearing as a linear pattern along both sides of the main roadway, poor accessibility and lack of functional open spaces. The additional features are low-cost, huge housing projects, use of poor construction materials, a mix between housing types and land uses, and a lack of well-defined activity centers.

The impact of urban Syrian refugees on architectural style

Building design and engineering consultants, planning standards, codes of practice, regulations and quality control are not monitored in building construction industry in Al Mafraq city. In addition, the Jordanian national building laws and regulations are not compulsory, not fully controlled from Al Mafraq Municipality and not compliance with standards. Many houses in Al Mafraq city are informal, which were built without planning permits. Therefore, most owners hire Syrian skilled/unskilled labors to construct their houses and building without any kind of engineering supervisions on design and construction. As mentioned in research problem statement section, most professional workers in the construction and building sectors are comprised of Syrian refugees from different cities in Syria. They try to recreate their exterior familiar architecture. They carry their previous knowledge, perceptions and experience with them and bring different construction elements, principles and techniques, and use them in their work, which may lead to chaotic architectural characteristics within the city’s fabric that may negatively impact the urban context of the whole area.

Al Mafraq is more like a local city that used to accommodate an intimate, homogeneous urban fabric that facilitated a uniform, architectural language. Results show that the city lost part of this uniform identity due to the heterogeneity that started occurring in the design of neighborhoods on both urban and architectural scales. Despite being simple and probably not very well designed, the city’s original fabric was homogenous, satisfactory, fit with the local environment and met the needs of the local population.

Before the crisis, there was a public and official hope for future development that would improve such fabric and enhance its efficacy. Due to the recent massive growth in population and number of residential buildings that had been added suddenly to the city, such ambitions flew away and left architectural chaos, disorder and weakness in the urban fabric of the city and architectural identity in its wake.

Data from surveying buildings at Al Mafraq city show that the neighborhoods presently comprises a blend of detached and attached residential units of different sizes and styles. Single-family houses and villas of small, medium and large sizes beside multi-family apartment buildings bear witness to this emerging, disorganized building trend.

A shift can be identified in housing typologies. An increase in demand for the apartment typology has risen above the demand for the common, single detached household. Nowadays, a conflict can be noticed between the original and newly developed urban contexts. The new residential buildings do not fit with the existing architectural fabric regarding the style and masses, materials and colors, as well as design and size. A clear distinction can be made between what originally existed in the neighborhood and what has been added recently after Syrian refugee resettlement. The following is a comparative illustration of the main architectural features of houses in Al Mafraq city before and after the arrival of Syrian refugees based on order and composition, materials and colors and design and size.

Order and composition

Before the Syrian refugees’ influx, the villa form was mainly composed of different basic shapes in a visual hierarchy that reflects balance and stability. Repetition was harmonized,
and emphasis was placed on the main entrance and main hall. Symmetry in facades was commonly avoided, particularly in villas, preferring an emphasis on compositions that were more dynamic. Additional, decorated elements, such as columns and friezes, were frequently added to enrich architectural composition.

Balanced masses and units characterized apartment buildings. Unity was strongly presented, and design elements were easily recognized. The use of special stone parts and decorative treatments including, for example, addition and subtraction, in facades was common. A clear balance between solid and void was noticeable as shown in Figure 7.

After the Syrian refugees’ influx, rigidity and poorness were the two main characteristics identified in the buildings built after the arrival of Syrian refugees. Unlike the early conventional style of residential buildings, new forms were composed of huge masses lacking homogeneity and balance in both shape and proportions. This is also observable in the treatment of masses and design of building facades.

Openings were scattered haphazardly with no balance between solid and void. A poor sense of harmony and rhythm in the order and composition of design elements were presented. Regarding decoration elements, addition and subtraction in mass fabrication were unsystematically presented. The visual hierarchies of design elements were rarely discernible in recent residential building forms, as shown in Figure 8.

Materials and colors
Before the Syrian refugees’ influx, villas and apartment buildings were normally built from local white stone and red clay tiles. Different colors of stones (mostly black or yellow) were added carefully in some instances to the main white color to emphasize openings, terraces

![Figure 7. The order and composition style before the Syrian refugees’ influx](source: Alhusban et al. (2017))
and decoration features. Strong contrasts in colors were present to highlight the design elements. Different elements of composition and façade design were combined successfully to achieve a sense of harmony, unity and visual interest, as shown in Figure 9.

After the Syrian refugees’ influx, a variety of materials, such as concrete blocks, glasses and some low-quality stone, were used. This opened the opportunity to use cheaper materials and expedite production of residential units to respond to the increasing demand for reasonably priced housing units. Different colors of low-quality finishing paints were used in a random and discordant fashion, creating a chaotic architectural fabric and urban scene. Moreover, symmetry in facade designs declined the livability of design compositions, as shown in Figure 10.

**Design and size**

Before the Syrian refugees’ influx, the design of both villas and apartment buildings was dynamic. Visual elements were arranged in a way that creates rhythm and implies a visual connection to lead attention to composition. Geometric shape and form of design were livable and provided variety to the architectural context. The size of villas varied in area, ranging from small, medium or large with one or two storeys. Apartment buildings, on the other hand, ranged from three to four storeys and included six to eight apartments (mostly two bedrooms), as shown in Figure 11.

After the Syrian refugees’ influx, the design of new residential buildings was static and plain-looking. Decoration elements were rarely used. The geometric shapes and forms of design were unlivable and did not match the architectural context in which it was surrounded, but rather, embedded a newfound sense of architectural disorder. There were scattered, unrelated and opposing design elements that weakened visual stability. The sizes of residential buildings were larger in height and layout in comparison to the original residential buildings. The new
A Syrian male, 32 years old, stated:

We, as professionals and masters in building construction field, have more experience and skills than Jordanian have. We try to develop and enhance the visual view of the Jordanian buildings. We start to use some new building decoration elements such as the black stone and the huge decoration columns.

New Signage systems and new functional buildings were appared. Once the Urban Syrian refugees settled down, they created places such as restaurants, cafes and butchers stores. The host community enjoyed Syrian hubble-bubble (a hookah) and the delicious Syrian
food. Therefore, new functional buildings and signage systems appeared. A Jordanian male, 38 years old, stated:

The Syrian refugees create their spaces and business. The open the Syrian cafes and restaurants and even they use their signs. We, as a Jordanian, consider consumers and only eat their delicious Syrian food.

**The impact of urban Syrian refugees on social life**

*Source of tensions and social problems.* Refugees created tensions and conflicts. The problems that may face the urban refugees include lack of affordable housing, inadequate access to quality schools, substandard employment and unmet basic needs (*Theodore and Martin, 2007*). The shared religion, language and doctrine are insufficient to ensure social cohesion between refugees and host community. The social tensions caused by the variation...
of tribal identity, dissimilarity of habits and costumes, inequalities, gender-based
dominance, social disorder and the competitions for limited resources and public services
(Alshoubaki and Harris, 2018). This research found that the major sources of tension
between the two communities are the pressure on public services, the competition over basic
livelihood housing, the competition over basic life needs and services, the increase in
rented prices and the competition over jobs.

Local community members negatively receive INGO’s practices and policies of
abandoning local employees from inside the city, limiting all sorts of aid over the local
community, and providing refugees by opportunities for education, training and
capacity building leading to better chances for work. INGOs provide rental grants to
urban refugees that lead to rapidly rising rental prices, which, in turn, affect poor host
households and communities. In addition, the unfair distribution of humanitarian
assistance intensifies competition and increases division between the two social
groups.
A Jordanian male, 55 years old, stated:

The host community and I feel that we are becoming a victim of crime, poverty, services shortages, and the radicalization of refugees and increasing terrorism. We are frustrated with roles of the distribution the international aids. We are also poor people, and the Syrian refugees take advantage of everything.

Another Jordanian male, 23 years old, said:

The Syrian refugees are guests in Jordan. We are brothers. Nevertheless, they compete with us over jobs and livelihood opportunities, public services like water, electricity, solid waste, health, and education [. . .] The distributions of international aids are unfair and unequal.

Another Jordanian male, 45 years old, commented:

We know that the Syrian refugees do not have their own choice to be here. They forced to leave their country due to civil war. Everything was better before the Syrian refugees came. They ruined everything. They are responsible for the deterioration of our living conditions.

Source: Alhusban et al. (2017)
A Jordanian male, 23 years old, stated, “The Syrian refugees strain the Mafraq’s resources and infrastructure. They increase competition over the jobs and increase pressures on existing recourses.” Another Jordanian male, 36 years old, commented:

The Syrian Refugees are living better than the Jordanian is. They are taking advantages of everything. The INOGs are giving them everything: money for rents, food and cash assistance, education and health facilities, and even clothes. In contrast, we do not have money to pay for rent and other services and buy new clothes for our children that mostly we buy from the second hand. We are asking to treat equally with them.

A Jordanian male, 29 years old, stated:

They (Syrian) receive all kind of assistance from INOG’s and sell them to us. Our life in Al Mafraq city is tough, and we do not receive anything at all because we are Jordanian. The Syrian refugees are greedy; they want to take everything.

A Jordanian female, 24 years old, said, “We had our own problems in this small and poor city a long time ago. We cannot afford extra problems from our neighbors.” Another Jordanian male, 35 years old, stated, “The Syrian refugees sell their food and other assistance to us. I swear that they buy gold or transfer money to Syria!”

In such cases, the local people are frustrated, struggling and have negative views of Syrian refugees, which enhance the chances of increased tension between the two communities. Such tensions have not reached the level of threat by crime or violence yet; however, overall circumstances in the city are getting worse and might be alerting towards some aggression, especially considering the typical, negative sequence of events in the matter of housing (UNHCR, 2013).

Child marriage/early marriage/child bride/girls marriage before their time is another social problem. The early marriage is a long-accepted practice in Syria before the crisis, but it has dramatically risen after the crisis. The early marriage is often unregistered officially (SaveTheChildren, 2014) and the ultimate decision usually has taken by the male: the head of the household (UNICEF, 2014).

The main reason for the child marriage is to protect their girls from sexual harassment and to protect their family’s honor from possible sexual assault (SaveTheChildren, 2014). In addition, the early marriage is an attempt to ease from financial burdens, alleviate poverty or the burdens of a large family with many daughters. It serves as an escape for girls living in an abusive home situation. Also, some people resorted to early marriage to facilitate entry of the Syrian men to Jordan. Moreover, the refugees believe that early marriage provides security for girls (UNICEF, 2014).

Syrian female refugees are more likely to be married under the age of 18 (Verme, et al., 2016). The Syrian adolescent girls (age 15-17) are marrying much older men (UNICEF, 2014). This marriage had a negative impact due to the early and forced sexual activity, premature pregnancy, and childbirth, and the responsibilities of caring for children at an early age (SaveTheChildren, 2014).

The Jordanians take advantage of the distress, and many Jordanian men married Syrian refugees’ women to avoid the high bride price customary in Jordan. Also, they consider such act as charity and aid to the Syrian families (Barkan, 2012). The ease and less costly marriage procedures increased the second marriages from the Syrian women among Jordanian men, which raise the stress and worries among the Jordanian wives and threatening the stability of their families and their social life. (In Islam, a man is allowed to take four wives at the same time if he treats them equally and justly). In addition, this has also led to an increase in the percentage of spinsterhood among the Jordanian girls and delayed the age of their marriage (Barkan, 2012). Moreover, the inflated housing rents and
living costs force young Jordanian people to delay their marriage because they cannot afford new housing (Francis, 2015).

A Syrian female, 15 years old, said:

I leave my country and my school to marry an old man from here. My family sold me because of the civil war and financial difficulties. I am not ready to be a mother. When I married, I did not understand anything about marriage. I do not know how to deal with this old man. I do not know how to cook or even make tea. I want to continue my education, but my mother forced me. She was worried about my future. I never had the chance to know my husband.

A Jordanian female, 45 years old, stated, “Many of the Syrian refugee girls are getting married early, between 13-16 years. I feel pity for them. They are too young for marriage and its responsibility.” Another Jordanian female, 32 years old, stated, “The Syrian girls are beautiful and get married early. Our boys and men prefer them for several reasons. Therefore, the Jordanian ladies are worried.” Another Jordanian female, 28 years old, commented:

Many Syrian families are marrying their young daughters to Jordanian men to get out from the Za’tarai Camp. They are selling their daughters. They even do not mind to marry their 13-year-old girl to a 60-year-old Jordanian man. Marriage to Syrian girls are less complicated, less costly, and they accept lower conditions than Jordanian girls accept. Therefore, our Jordanian girls do not get married.

*Place attachment and future insights of the return of refugees to their homeland.* Sense of place and place attachment is an important motivator for returning refugees (Chamlee-Wright and Storr, 2009). Syrian refugees have mixed feelings. They may have both positive and negative emotional attachment to places in their country of origin. Some refugees do not want to return because they had negative emotional experiences in the same places and lost whatever they value most, children, parents, relatives, partners, properties and friends. In contrast, others may talk all the time about their memories and old good times and about their hopes to return to their homeland (Hiruy, 2009). Syrian refugees’ attitudes toward a return to their homeland are varied. The safety, security, political settlement and improved living conditions are the priorities for refugees to return to their homeland.

A Syrian man, 35 years old, stated:

I do not have a home to return to. I am worried about the future situation in Syria. I have family and children, and I do not want someone comes and rapes them. I do not want to be insulted and humiliated again.

Another Syrian female, 31 years old, commented:

I do not want to return to the same place which I was live to remember my relatives and friends that died there. I cannot back to see the persons who killed my family in front of my eyes.

Another Syrian male, 51 years old, commented:

I do not want to return to my country due to the bad and negative emotional experience that I had in these places. I do not want to see people who killed my son. I lived in horrendous acts of violence and lost my parents, relatives, friends, and property. We lost everything.

Another Syrian male, 51 years old, commented:

I do not like to back to Syria because my big family is spread out and now living in different countries. I never want to return. My family and I prefer to resettle in Europe or in any Gulf country to secure our future.
Another Syrian female, 45 years old, stated:

It is impossible to return under the current situation. We lost everything, and we do not have anything to return to. We are looking to live in a safe place only.

Another Syrian female, 40 years old, commented, “We are facing difficult situations and harsh conditions in Jordan. Nevertheless, the current security conditions in Syria are unsuitable for the return.”

In contrast, there were some urban refugees hoping to return to their home country. A Syrian man, 55 years old, stated:

I hope that I can return to my home country, Syria. I am ready to return if they reach to a comprehensive solution of the conflict. I want to die there.

Another Syrian man, 46 years old, commented:

My home was destroyed, but I want to return to Syria if the political and survival conditions allowed. I can rebuild my home repeatedly. I do not like to live in an alternative homeland for the rest of my life. I hope that my children can grow there in Syria. We must return to our normal life; we do not know when and how.

Another Syrian man, 33 years old, added:

My life will be better at my home. I am looking for the day that I can play a major role in the rebuild and reconstruction of my country. I hope to return if the situation calms down; God knows when the situation calms down! I have interesting memories in Syria.

A Syrian man, 35 years old, stated:

I am not choosing to leave my country of birth. I remember those good times. I am looking to return to my home one day. I left all my memories behind me there. My extended family still lives there. I have strong emotional and attachment to my home place and my relatives.

Another Syrian man, 75 years old, added: “I never imagined that I would live outside my country. Suddenly we found ourselves as refugees and strangers. I still attached to my home place and its people.” Another Syrian man, 42 years old, added, “I am a Syrian refugee in Jordan. I am fleeing from the civil war. I am Guest here, and I am looking to back to my country.”

Al Mafraq mayor hopes that the Urban Syrian refugees do not stay a long time in the city. He stated:

We cannot deal with the huge growth of the city population, but we do not have another choice. The new buildings outside the planning area need infrastructure services, which we cannot afford.

A Jordanian man, 52 years old, commented:

Everything was better before Syrian Refugees came. We are paying a heavy price due to hosting Syrian refugees. We hope the conditions in Syria are settling down and the refugees returning voluntarily to their home country. Their return will positively affect us in Jordan by decreasing the competition of scarce resources such as water, housing, education, health facilities, food, medical services, energy, transportation, infrastructure, social services, and employment.

A decline in social communications. The results from this research revealed that the decline in social communications and networks between the two communities has led to social instability and social fragmentation. This has weakened social solidarity and reflected negatively on the sense of community among the city. In addition, the feeling of insecurity
and mutual distrust has led to social isolation, lack of social communication, lack of participation of social actors and events, lack of use of external open spaces and lack of assistance to meet necessary needs, which, in turn, has weakened social cohesion between Jordanians and Syrians in Al Mafraq City.

There were many reasons for the shallow and cautious level of social interaction. The host community considered urban Syrian refugees as responsible for worsening the poor living conditions taking place in the city leading to the deterioration of services and the quality of life. Also, the host community considers Syrian Refugee immigration as the factor crumbling the original community and turning it into the hybrid community it is today. In contrast, urban Syrian refugees consider their situation as temporary and as if there is no need for extended social relationships.

A Syrian male, 18 years old, stated:

We escape from the killing. We feel safe now. Nevertheless, we feel that we are like prisoners. The host community does not care about us, and they said that you came to our county to create problems.

Another Syrian female, 40 years old, said:

We are strangers here. We do not want to build any relationship with the Jordanians. We are staying at home because of security purposes, and we are worried about kids too.

Another Syrian male, 36 years old, said, “We prefer to live alone. I do not encourage my children to play with the Jordanians to keep away from problems.” A Jordanian child, 10 years old, said:

I like to play with Syrian kids every day. They have different street games. Nevertheless, my parents do not allow me to play because those kids are foreigners and we are not certain about their morals.

A Syrian male, 27 years old, commented, “I do not have good friends here, and the local people here called us names.” A Syrian child girl, 12 years old, said:

I love Jordan, but I love Syria more, because in Syria no one says to me, go you are a refugee. Here in Jordan every day the boys say that to me, and we end up fight for that.

Another Syrian male, 68 years old, said, “I do not get the chance to know them (Jordanian) well. There are many boundaries between us.” A Syrian male, 40 years old, commented:

No one can protect himself from being a refugee. We have no choice. However, Jordanians reject us. We invited them many times to share our activities, but they rejected with no apology.

Social cohesion between locals is influenced negatively due to the rapid change in social norms, values, and traditions. The Syrian Refugee immigrants came with different ways of living and new norms that are not used or accepted by the local community. These reasons contributed to a decline in social cohesion between the two communities. Syrian refugees have different tribal affiliations, which caused a dynamic change of social and cultural structure of Al Mafraq host community. Different tribal identities cause social discrimination in society because Al Mafraq host community focuses in kinship, genealogical and blood ties. Therefore, the tribes in Al Mafraq city are less receptive strangers and subcultural identities (Alshoubaki and Harris, 2018).

Jordanian women had a negative attitude and perceptions of Syrian women’s behavior, cultural norms, habits, and customs that would be traditionally unaccepted in Al Mafraq host community (Seeley, 2015). A Jordanian female, 27 years old, said:
The Syrian women habits are changing. They are becoming more open-minded. They are not covering their face with hijab and dressing western customs. In addition, they are shaking hands with men and not practicing customary habit.

Using public spaces and public safety. People from both parties did not prefer to use open public spaces, especially at night, and rarely took part in each other’s social events. This was not the case at the beginning of the crisis, where Jordanians used to invite Syrians families to their weddings and other similar social occasions. As resettlement progressed, this progressively changed, and Syrians became less invited to such occasions. Many reasons were raised over time, as some Jordanian women claimed that Syrian young women had plans to marry their husbands, and others said that Syrians do not appreciate Jordanian services as much as they expected. Regardless of the reason, each reflected a decline in the degree of trust, public safety and security and appreciation between locals and refugees.

A Syrian female, 25 years old, said, “We, as women, prefer to remain at home to avoid harassment or negative stereotyping in public and open spaces.” Another Syrian male, 50 years old, stated:

We try to stay away from problems and try to prevent them. We do not feel secure. There is no one supporting us if we are victimized by a Jordanian guy and may send us back to Syria.

Jordanian male, 62 years old, said, “We, as Jordanians, are frustrated and targets of scapegoating. Syrian refugees bring violence, drug abuse, and radical actions with them.”

A Syrian male, 18 years old, said, “The tensions between two communities hinder the enjoyments of public open spaces and reduce the walkability within the neighborhood.”

Another Syrian, female, 55 years old, said:

We are worried about our daughter. The Jordanian boys and men are harassing bothering the Syrian girls because we are refugees. The adults are saying dirty words and mistreating us. The Jordanians do not accept that for their girls. Therefore, we are worrying about our girls and tiring to keep them safe.

Another Syrian, female, 32 years old, said, “I do not let my kids play outside with the Jordanian kinds because they are bully and hit them.”

Finally, the presence of new and unaccepted social phenomena is appearing in Al Mafraq city, including, for instance, young Syrian women and girls strolling the streets at night. This situation is unaccepted based on the values, norms and traditions of Jordanians, specifically among the tribes of Al Mafraq. Tribe leaders fear this behavior affecting the behavior of young Jordanian women in the local community.

In conclusion, this research found that the sources of tensions caused negative feelings toward refugees, less security, a lessened prevalence of social networks, less social instability, and more social fragmentation. In addition, they cause a heightened frequency of violence in the form of harassment, criminal activities, anxiety, scapegoating, isolation and discrimination. Meaning, these two communities are living side by side, in the same geographic area, without any social cohesion.

Conclusion
In recent years, thousands of Syrian refugees were suddenly added to Al Mafraq’s population to the point where they outnumbered the local population. This situation has formed a demographic shift causing a housing crisis and a decline in community social cohesion. The main challenge is how to foster social cohesion to decrease social tension between the Al Mafraq host community and the newly resettled Syrian refugees. In addition,
the impact these Syrian urban refugees have had on the architecture style within the host community has not yet been researched.

Therefore, the purpose of this case study research was to explore and ascertain the direct and indirect impacts of urban Syrian refugees have placed on the residential urban fabric of Al Mafraq city both physically and socially. Physically, regarding architectural style, and socially, regarding social cohesion and the sense of community. This research used different research methods to collect data: Desk reviews, focus group discussions and semi-structured individual in-depth interviews were used to explore the social impact of the Syrian refugees on Al Mafraq city. In addition, site surveys, fieldwork observations and qualitative comparative analysis were used to explore their impact on architectural style and urban sprawl.

This research found that urban refugees are a significant factor in the transformation of our cities. They play an important role in reshaping physical architectural styles and social morphologies of the cities in which they resettle. If given a chance, they try to develop and recreate similar spaces and places of their origins and engage in social interactions parallel to those practiced on their native lands. They try to create their unique world by using their language, signs, cafes, restaurants, streets and community halls. Urban Syrian refugees attempt to give new meaning to different spaces and places of Al Marfaq city.

The housing crisis drives local and regional investors to build tens of huge, rabid, random, odd, less elaborate constructions of new residential buildings. In such circumstances, matching the existing architectural style and urban fabric is a minor issue to consider in the eyes of developers, designers, or even construction workers. The result is an unorganized, chaotic urban growth, where many neighborhoods are dispersed randomly. Therefore, rapid expansion due to an increase in housing demand often results in poor construction quality that values short-term return investment over sustainability and the betterment of urban life.

Architecturally, neighborhood designs became more heterogeneous and suffered from architectural chaos in terms of masses and treatments. In addition, there were shifts in dominant building typologies and deteriorations in the quality of building construction and design settings. Moreover, housing demand and its subsequent construction increased in an unprecedented manner, challenging the original fabric and identity of the city.

Socially, many problems started appearing, such as a decline in social interaction, the sense of community, and social solidarity and cohesion. Local residents frustrated with existing bad circumstances and situations in Al Mafraq city have become worse with the arrival of Syrian refugees and have increased unemployment among the local population. Moreover, local residents harbor resentment toward INGOs and the international community.

This research defined the major sources of tension between the two communities now coexisting within Al Mafraq. These tensions have caused negative feelings toward refugees, a lessened sense of security and safety, dwindling social networks, elevated social instability and heightened social fragmentation. In addition, these tensions have caused the frequency of violence in the form of harassment, criminal activity, anxiety, scapegoating, isolation and discrimination to proliferate. Therefore, these two communities are living side by side in the same geographic area without any social cohesion.

Moreover, mixed feelings, hybridity, the fluidity of emotion and attachment to places may lead to the creation of a new environment, or one where urban Syrian refugees try to recreate spaces similar to those of their homeland.

**Recommendations and policy implications**

The different stakeholders should express high concern for the different source of tensions between the urban Syrian refugee and Al Mafraq host community. They should foster
formal and informal communication and promote dialogue between the two communities to improve social relations and reduce the tension between them. The consequences of Syrian asylum on hosting countries present an issue that has been vastly studied by several scholars and international agencies. Research, reports and surveys all denote the negative impact of refugees, especially in cases where resources are scarce, as is the case with Jordan. As a part of such consequences, Al Mafraq city is moving in the wrong direction as a result of the increasing flow of refugees (MercyCorps, 2013; MercyCorps, 2018).

To stop child marriages, INGOs and government must adapt multifaceted program focused on the girls, the families, and the community. This program must educate communities, raise awareness about the negative consequences of the early marriages and enforce existing laws and policies and empower girls through education and employment.

There is a need to raise awareness about the danger of urban sprawl in Al Mafraq city. Al Mafraq Municipality needs quick and urgent help to prepare and design a comprehensive master plan to control over the city expanding and to monitor the city’s urban sprawl and architectural style. There is a real need for bonding local, regional and international efforts to save Al Mafraq city from both current and anticipated urban problems. The municipality of Al Mafraq should work extensively to limit the trend of haphazard growth currently affecting residential building construction.

All stakeholders should empower and strengthen Al Mafraq municipality to cope with the influx of Syrian refugees. The international assistance and direct external support should move quickly to solve the social, architectural, and urban challenges that face Al Mafraq city, to meet the human needs for urban Syrian refugees and vulnerable Jordanians, to provide effective and essential public services and to foster sustainable development within the Governorate. Local and municipal governments should involve in long-term planning and decision-making process.

INGOs should develop their strategies of designing community-based refugees programming and use different stakeholders’ inputs to reach to optimal programming for both refugees and host communities. INGOs should assess and evaluate the impact of their policies and practices on the host community to maximize the positive impact and to avoid and prevent the possible conflict and tensions between the Syrian refugees and Al Mafraq host community.

INGO’s should distribute foreign aid justly and equally between the two communities. Agencies involved in providing aid for Syrian refugees should turn around and give a similar look to the local community. Such agencies almost never contribute to developing the city and normally do not help locals, particularly the poor ones, to overcome the threats and challenges faced by the newfound presence of refugees. Both local residents and officials (Municipality) are frustrated with those agencies, and even the international community, because of such negligence of the city and its original community. They barely give attention to the emergence of urban problems occurring in the city because of Syrian refugees. Furthermore, they unintentionally contribute to increasing urban problems and the destruction of the urban fabric of a city with already limited resources that suddenly became a host with no other choice.

Stakeholders should provide and create an accessible, safe and attractive open public spaces for both communities and support shared cultural activities to encourage social interaction and facilitate open the dialogue and exchange thoughts between Al Mafraq host community and urban Syrian refugees to strengthen social cohesion. Many associations recommend that community leaders in Al Mafraq should rebuild new and robust bonds between Jordanians and Syrians to avoid any expected violence in the future. Stakeholders should enhance and encourage social communications networks to reduce tensions between the
two communities, empower local actors to protect both communities, find comprehensive solutions to sustaining local resources, improve solid waste management, enhance livelihood and employment opportunities and support local institutions to promote social stability. More research is needed to strengthen social cohesion between refugees and host communities.

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