

IMPACT OF HOUSING DEVELOPMENT AND DOWNTOWN REVITALIZATION IN IRBID, JORDAN

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Abstract

This research examines the impacts of housing development on the revitalization of downtown Irbid, the second-largest city in Jordan. It establishes an appropriate standing point to understand why it is important to consider housing supply and demand in reviving downtowns. The existing situation in downtown Irbid shows that the area lacks overnight occupancy, weekends, and vacations, causing the appearance of crime scenes, nodes of social problems, and absence of the sense of belonging. Data in this study were collected based on qualitative and quantitative research methods. Qualitative data were collected from face-to-face interviews through purposeful sampling. Quantitative data were collected via a survey conducted for a simple random sample of people living in or used to live in Irbid in general and downtown Irbid specifically, using a web-based electronic data collection. The results indicated that reusing existing vacant buildings and upper floors for tourists' and students' housing will improve the downtown housing market and attract people to live in the area. This study is a start to spot the light on improving the downtowns of Jordan's city through housing development as this approach received little attention on the practical side.

Keywords: downtowns; revitalization; housing; development; urban form; Jordan.

1. INTRODUCTION

Downtowns play a significant role in cities as they form the centers of the urbanized areas and still reflect the image of the cities' economic core. A healthy downtown is often synonymous with a healthy community (Kotval & Mullin, 2003). According to Moulton (1999), empty buildings, vacant land, depressed real estate prices, and ever sprawling suburbs – have become the essential ingredients of downtown's resurgence. Each downtown has its characteristics, problems, potentials, and specific conditions. Therefore, there are

different revitalization strategies. Any revitalization approach should be customized based on unique physical situation, institutional assets, consumer demand, history, and civic intent (Leinberger, 2005).

This study explores the revitalization opportunities and potentials for reviving Irbid downtown, the second-largest city in Jordan. Irbid faces rapid population growth affected by the large waves of immigration and refugee that came into the country due to political upheavals and wars in the neighbouring countries challenges such as providing housing, and infrastructure services (Ali et al., 2019).

Mixed-use buildings form the largest portion of Irbid downtown, followed by commercial, residential, public, and religious buildings, respectively (Figure 1). Due to the current building agglomeration in the downtown of Irbid several unsecure zones and nodes of social problems and crime have appeared and create sense of alienation.

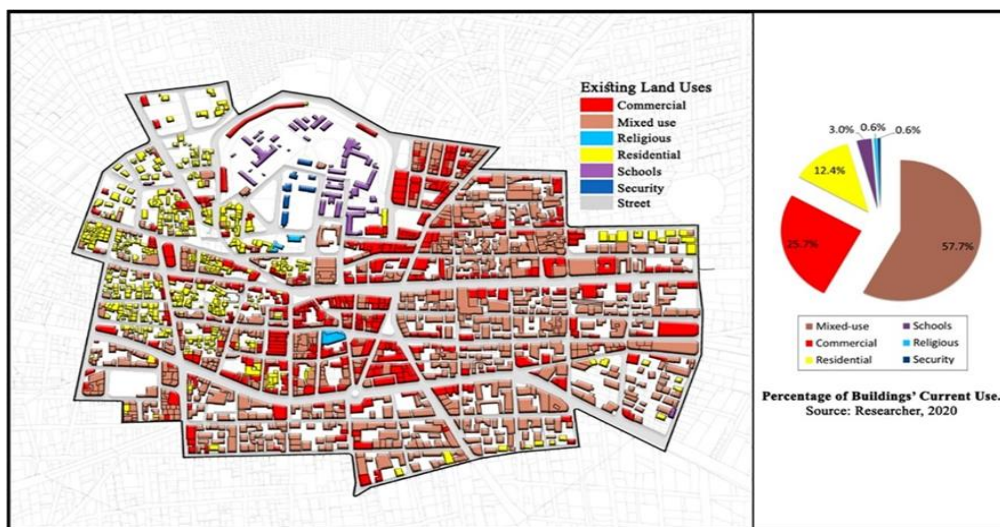


FIGURE 1 - IRBID DOWNTOWN EXISTING LAND USE
Source: GIM, 2019; researchers, 2021

Recently, Greater Irbid Municipality (GIM) has launched the ongoing Irbid's city center development project to revitalize its downtown. This research focuses on the theoretical aspect of the revitalization process of downtown Irbid. It aims to contribute to the ongoing project by examining the approach to revitalizing housing development to achieve an appropriate revitalization process by improving the housing market. The study explores the push factors (that made people leave the area) and the pull factors (that will attract people to live back in the area). The research questions of this study:

- What is the demand for housing in downtown Irbid?
- What is the available and potential housing supply in downtown Irbid?
- Will there be a match between supply and demand for housing to revive the city?

This research covers an area of 0.83 km² of downtown Irbid around an artificial archeological mound known as Irbid Hill (Tal Irbid). The area is inhabited by extended low and middle-income families and mixed-use local economic and commercial businesses. This part of the downtown currently attracts poor migrating families and the working foreign labor force (Ali et al., 2019; Ayyoub & Ayyoub, 2018; Fakhoury & Haddad, 2017). Until the mid of the 19th century, Irbid was a small village located on the main trade route of Bisan-Ghor-Houran. It consists of 50 houses and about 350 inhabitants. All houses on the southern part of the hill compose what is still locally called the lower quarter, “al Hara al Tahta”. The number of houses increased to 130 with about 900 persons in 1894. In 1910, Irbid had approximately 2000 people, 3500 people in 1922, and 15,000 people in 1937. During the 1940s, the population of Irbid city dropped due to: the rise of Amman as the Metropolitan city of the modern kingdom on the one hand and considering Zarqa city an attractive place, especially for military reasons on the other hand. The growth and expansion of these two cities were at the expense of other small cities such as Irbid (Tarawneh & Naamneh, 2011). By the end of the 1940s, Irbid’s population increased due to the forced migration of Palestinians to Jordan after the 1948 Arab-Israeli war. Between 1949 and 1950, 4000 refugees settled in Irbid. During the 1950s and 1960s, villagers from the surrounding areas migrated to the growing Irbid city. After the second major Palestinian exodus in 1967, Irbid’s population reached about 40,000 people. This increased population continued to reach 350,000 people by the year 1994. By the end of the Ottoman period, people from surrounding villages and regions (such as Syria and Palestine) were attracted to the Irbid city. This attraction continued until recently, explaining why Irbid developed and became the second-largest trade center in Jordan (Tarawneh & Naamneh, 2011).

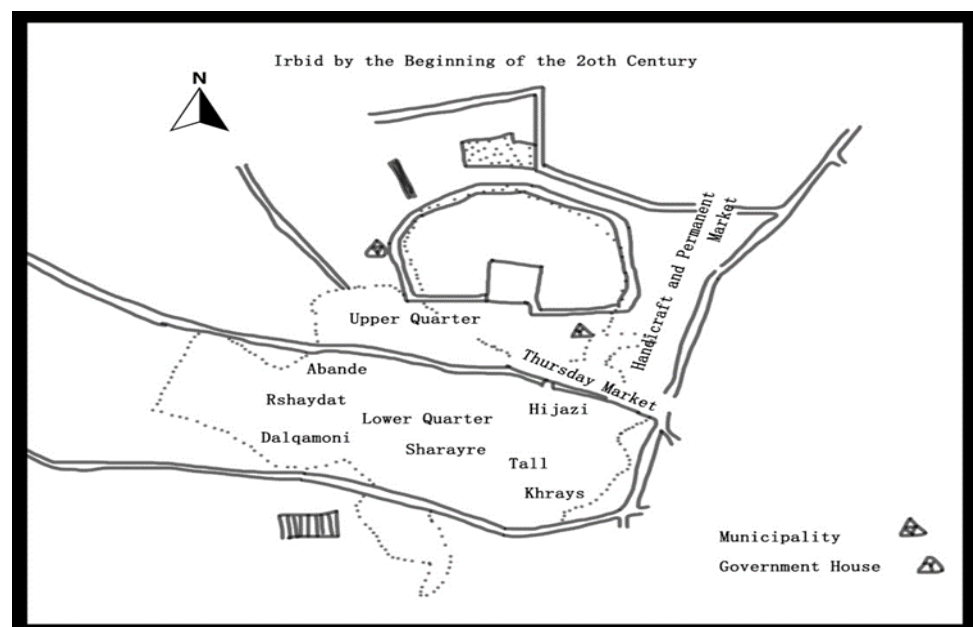


Figure 2 - IRBID UPPER AND LOWER QUARTER
Source: Tarawneh & Naamneh, 2011

During its early modern formation, Irbid was made up of seven local tribes. In the later years, the social fabric of Irbid had included Christians who came to Irbid by the end of the 19th century and the beginning of the 20th century from the close villages; Shwam, that most of them came from Damascus; and the masons also knew Nabulsi of the town migrated from Nablus in the early 1920s. Christians lived in the northwest of the lower quarter, where the Syrians (Shwam) and Nabulsi lived in the upper quarter along with the seven local families who were the main residents of this upper quarter. Recently, the upper quarter has almost abounded, most of the elite and wealthy families have left, and now they live on the city's outskirts (Tarawneh & Naamneh, 2011) (Figure 2).

2. LITERATURE REVIEW

This section presents a thematic review of the revitalizing literature of downtowns through the housing development approach. It covers the terms of revitalization and housing development by addressing related definitions, elements, and theories.

Revitalization is a multisided effort that includes revitalization, restoration, reconstruction, modernization, and revival actions (buildings' revival, destroyed districts or towns in various aspects, and economic and social revival) (Wilczkiewicz & Wilkosz-Mamcarczyk, 2015). According to the same source, the current definition of revitalization is an urban policy action that affects the whole city's life, respecting the past and local traditions and solving the local problems of inhabitants. Revitalization revives neglected parts of cities suffering from long-term economic decline, social problems, and spatial and infrastructure degradation that caused the loss of urban functions and inhabitants' quality of life (VASAB, 2016).

Urban revitalization aims to improve the quality of city life, bring economic development, create spatial enhancement focusing on existing structures and buildings, and protect natural resources and cultural heritage to attract activities and population to the revitalized area (Sas-Bojarska, 2018; Grodach & Ehrenfeucht, 2016; De la Roca et al., 2017). Multi-scalar intervention (global economic forces, national policy, and local action) and multisector actors (stakeholders, local authorities, specialists, experts, etc.) are required to achieve those as mentioned earlier (Grodach & Ehrenfeucht, 2016). Interestingly, most urban revitalization programs are subjected to an urban policy known by "Place-based Policy". The Place-based Policy focuses on improving economic performance and quality of life in a deprived area (De la Roca et al., 2017; Grodach & Ehrenfeucht, 2016) focuses on two categories: place-based people strategies which target disadvantaged residents in underperforming areas to improve their welfare and pure place-based strategies which target deprived areas regardless of the socio-economic status of residents such as downtown revitalization (De la Roca et al., 2017).

Finally, many researchers relate the revitalization the process specifically to city centers, as they define it as the process of returning people and activities to the city centre. This process requires planning to revive cities as it is about returning people to the city centers and keeping commercial activities, traditional urban functions along with new ones. To achieve that, residents, buyers, and visitors must be attracted and recentralized in city centers (Outón, 2019; Sas-Bojarska, 2018).

Several studies emphasized the importance of downtown revitalization, as downtowns gain this importance from being areas reflecting the community's values and spirit as they provide the sense of a place (Kotval & Mullin, 2003). Additionally, the downtown area has important governmental and economic activities, a high-quality employment tax base, a transportation network, and heritage buildings (Sands, 2007). As a result, there is increasing awareness and attention to the aspects, strategies, and indicators that should be dealt with during this revitalization process.

Downtown revitalization is about redesigning existing properties and reusing existing lands and structures that form the basis for future uses. This process aims to locate future land uses while also implementing new elements and concepts to link past uses with the future needs of the downtown area, not only through specific actions but also within the overall effect of revitalizing the downtown. As each downtown area has distinctive characteristics and problems within its physical conditions, infrastructure, historical importance, and tourists' attractions, it is necessary to have a unique revitalization plan for every downtown (Borovilos, 2014).

Furthermore, the challenge of revitalizing downtown is to attract people to rediscover downtown and make it an area for people to gather (Borovilos, 2014). The collaboration between downtown sectors is important to attract people to downtown, as it is necessary to have a people population and a wide variety of land uses that provide a 24-hour activity (McConnell, 2016). According to McConnell (2016), to attract people, it is necessary to have an activity generator (a place to attract people either daily or for live events) to collaborate between employment and other land uses. These generators work as a catalyst that attracts people and changes the perception of the downtown area, strengthening the effect of other revitalization efforts.

Following the literature findings regarding the downtown revitalization process, it is an incremental process consisting of physical and socio-economic aspects with different indicators assessing success in the revitalization process. This study will focus on studying the housing development approach concerning the downtown revitalization process in the case of downtown Irbid. We hope that be future studies will examine other approaches to collaborate with this study to establish strategies for downtown Irbid revitalization.

In recent years, housing development has become a prevalent component of downtown revitalization (Faulk, 2006). It is the continual reconfiguration of the built environment to meet society's needs (Al-Homoud et al., 2009). According to Faulk (2006), a residential population adds to the quantity and variety of goods and services demanded in a downtown. While 24-hours a day, seven days a week, activity may not be necessary for a vibrant and healthy downtown, a residential base increases activity level after regular business hours. Additionally, actions that bring new people energy to downtowns, considering that these improvements benefit people already living in downtowns, are the best way to revitalize downtowns. These actions include creating jobs at all skill and salary levels, keeping existing homes affordable (rental and ownership), and creating new homes at various price points (Smart Growth America, 2015).

Robertson (1995) mentioned that adding to the downtown housing stock provides patrons for downtown businesses, makes working downtown more appealing, adds activity to downtown streets on evenings and weekends, and creates a greater sense of security. Housing development often requires rehabilitating older buildings such as deserted schools, abandoned factories, and empty hospitals into residential housing (Burayidi, 2018). According to Burayidi (2018), adaptive reuse encourages property owners and developers to remodel or repurpose vacant and abandoned buildings for new uses. Downtown housing attracts elderly residents, non-family households, and young professionals. Young people tend to rent because they do not have the assets, income, or location stability to buy a house, while the elderly tend to buy houses for investment (Leinberger, 2005; Mohammadzadeh, 2016; Burayidi, 2018). Demand varies from retail businesses on the ground floor to residential on the upper floors (Bratcher, 2020).

The housing development is the continual reconfiguration of the built environment to meet society's needs (Al-Homoud et al., 2009). It is important to understand the needs and preferences of end-users to provide more housing supply choices (Al-Oun et al., 2010). According to Brett and Schmitz (2009), for a residential developer, obtaining information on existing tenants or buyers (age, presence of school-age children, marital status, incomes, location of prior residence) can help identify likely customers. Brett & Schmitz (2009) argued that it is important to consider the local market dynamics in housing demand projection. Consumer demographics (population growth, household formation, mobility and immigration, age and family characteristics, income, and lifestyle choices) are critical in determining the quantity, types, and setting fair prices and rents. It was also mentioned that the age composition of the population and the characteristics of the households in the area could strongly influence the demand for housing, the type of housing that will be marketable. For example, younger households are more likely to occupy smaller units and are more likely to rent than own; recent immigrants are more likely to rent; and so on. Furthermore, increasing population means that the local market attracts new residents and shoppers, generating demand for additional housing and shopping facilities. Older households may be moving out and replaced

by larger, younger households with children, or the neighbourhood may attract recent immigrants or new ethnic groups.

One of the influential attributes of housing is that the new supply forms only a few proportions of the total housing supply at any given time. On the one hand, the total housing supply is modified by new buildings along with the improvements and conversions of the existing stock and depreciation of that stock on the other hand. Equally, the new housing supply consists of both land and structure, which means that we must link the housing supply analysis to land markets' operation and the construction industry's organization (Whitehead, 1999; Al-Oun et al., 2004; Brett & Schmitz, 2009).

3. METHODOLOGY

This section presents the research approach in this study, including the method, instruments, sampling selection techniques, data collection procedures, and data collection management. An exploratory sequential mixed-methods design was used to conduct this study. Qualitative data were collected from face-to-face interviews through purposeful sampling (snowball sampling and theory/concept sampling). Eight interviews were conducted with different target groups of stakeholders, key informants, residents, and academics. These interviews sought data on the actual problems in the downtown area from the locals' point of view, the acceptance of the proposed revival approaches and programs, and the current social fabric of the downtown area. Quantitative data was collected through a survey conducted for simple random sampling of people living in or used to live in Irbid in general and downtown Irbid specifically, using a web-based electronic data collection. A sample size of 473 is taken for this study with a confidence rate of 95% and a margin error of 1%. The questionnaire for this study aimed three groups. The first group includes people who live outside the downtown Irbid area but are still connected to the downtown area for varied reasons. The second group consists of the current residents of downtown Irbid, whether tenants or owners. The third group includes downtown ex-residents who change their residency due to varied factors. This questionnaire explores the reasons behind people's abandonment of downtown Irbid. To what level people are willing to return to downtown Irbid. What are the new uses arising because of this abandonment? Where are they from the downtown revitalization process? What are the types of housing required in the downtown area?

The questionnaire included general information, the ex-residents of downtown Irbid, and downtown revitalization. Section two included a sample size of 129 and was analysed separately. It also includes three types of questions, closed-ended questions, open-ended questions, and semi-closed-ended questions. The researchers used some of the maps obtained from the Greater Irbid Municipality (GIM) originally done by their consultant (Dar Al Omran) to clarify the research analysis. section presents a

thematic review of the revitalizing literature of downtowns through the housing development approach. It covers the terms of revitalization and housing development by addressing related definitions, elements, and theories.

4. ANALYSIS AND DISCUSSION

This research tackles the housing development approach in revitalizing the city of Irbid; by exploring the city's problems to achieve an appropriate revitalization process by improving the housing market by via diagnosing the gap between housing supply and demand. It also explores the push factors (that made people leave the area) and the pull factors (that will attract people to live back in the area) to finally address the suitable social groups that might reside in downtown Irbid.

4.1. Qualitative Data Analysis

Face-to-face interviews -were conducted in Arabic. The researcher recorded the audio recordings in written words. The interviewees' answers were translated into English, sorted into tables, and coded in themes and subcodes. At the end of each group of interviewees, the researcher projected the findings into maps using Photoshop. The researcher analysed the transcripts by grouping the same concepts into codes and themes. Finally, the researcher classified the themes explored in one figure (Figure 3).

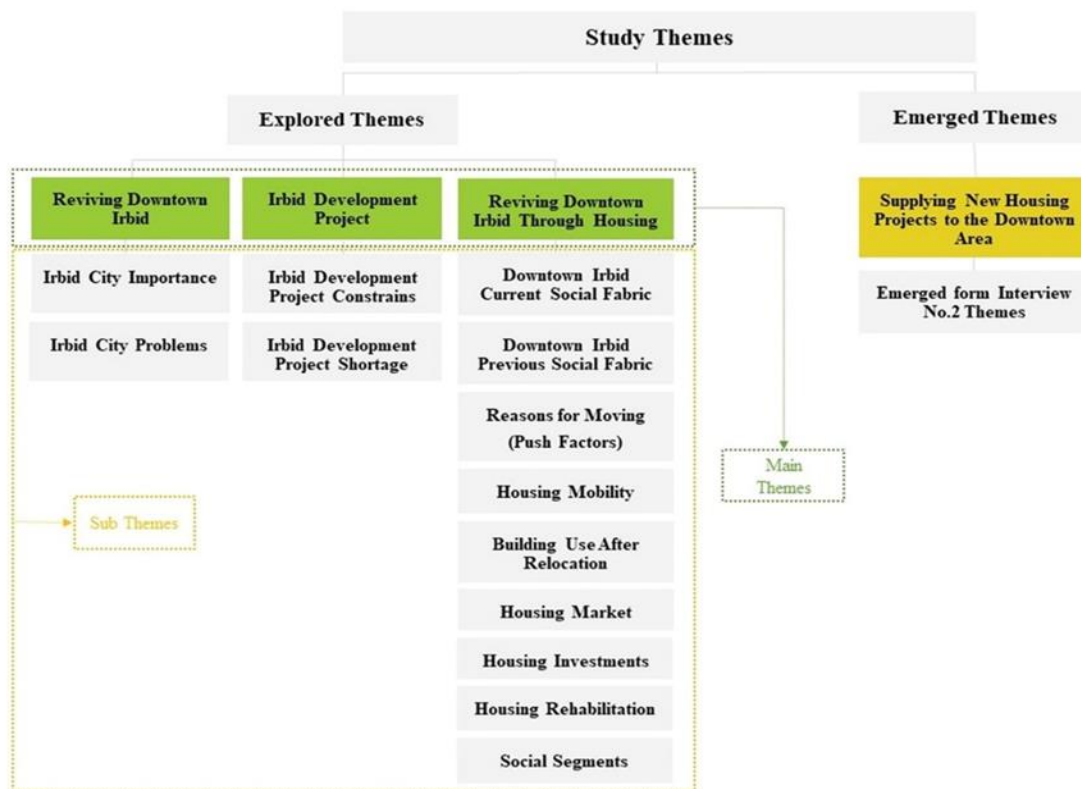


FIGURE 3 - STUDY THEMES CLASSIFICATION
SOURCE: RESEARCHER, 2021

Theme 1: Reviving Downtown Irbid: Irbid City Importance. Due to the strategic zone of the city near Bilad Al-Sham, its history dates back to 5000 B.C. as it was the center of the attention of many civilizations, such as the Roman, the Greeks, and even the Pharaohs. Nowadays, downtown Irbid has many cultural centers and heritage buildings that should be preserved and rehabilitated through different approaches to revive the area and bring people back. The city also hosts five universities that could play as a pulling factor to attract students to the downtown area.

Irbid City Problems. The downtown area suffers from traffic and transportation problems, lack of attraction points, environmental problems, lack of parking, small plot size, and infrastructure problems. The area is abandoned after 6 pm; thus, the downtown area lacks security and safety, and social problems arise.

Theme 2: Irbid Development Project: Constraints of an Irbid development project. The major constrain in this project is land ownership. The private sector owns most of the land, with some owned by GIM. GIM is seeking the owner of certain buildings located in this project's rehabilitation and development zones to solve this problem.

Irbid development project shortfall. Some interviewees pointed out a shortage in the ongoing project to develop downtown Irbid. This shortage is that the studies of this project do not contain parts focused on the buildings' redevelopment or tackling the residential types in the area.

Theme 3: Reviving Downtown Irbid Through Housing: The interviewees agreed that providing a new housing project would fail. Ex-residents from local families who abandoned the area reported that they would not return to the downtown area again. However, targeting specific social groups, such as students and tourists, would be successful using the existing stock and upper floors. This type of redevelopment is implemented by reusing buildings, rechanging abandoned buildings, and resharing several plots to use the first floor for commercial use while the upper floors for residential use. Moreover, this approach to attract specific social groups to the downtown area is a part of an integrated plan. It is an advanced step after rehabilitation and problem-solving. In that regard, GIM proposed providing distinct functions and facilities in the downtown area to attract students. One of the suggestions is to integrate a bicycle path connecting the downtown area with Yarmouk University, and another to connect the downtown area with the JUST University bus station. In addition, with the tourism rehabilitation and attraction in the downtown area, GIM proposed to reuse Juma's house as a tourist hotel.

Irbid Downtown Social Fabric. Poor local families, Egyptian workers, and migrants' families, mostly Syrians, are currently forming the social fabric in the downtown area. Due to downtown problems, most of the old local families with other (alternative) lands left the area.

Irbid Downtown Previous Social Fabric. Local families (Seven Kharazat), Shwam, and Christians were forming the social fabric of the downtown area.

Reasons for moving (Push Factors). There are many pushing factors for ex residents' relocation. These factors are ownership fragmentation, crowdedness, high traffic, transportation problems, lack of parking lots, high density, immigration waves, narrow streets, lack of night activities, changes in the family's structure, the plots' small size, and lack of children's facilities. Furthermore, other factors play essential roles in the relocation process, such as having an alternative (the case of the division law, families have lands outside the downtown area that ease the moving process) and the financial ability to move outside the downtown area. In addition, the new generation has no intention to return to the downtown area as there are no memories connecting them to downtown Irbid. Additionally, the job location plays an essential role in the relocation process, as families reside near their jobs.

Housing mobility. The division law in 1936 played an essential role in the housing relocation that occurred in the area, as each family had their lands in certain locations. For example, the Atal family relocated to their land in the eastern district (AlHai AlSharqi). AlAbandat family relocated to three areas Garoog, AlMasbaghanyeh, and Jorn Alghazal forest. The Hijazi family relocated to AlHai AlSharqi.

Building Use after Relocation. After ex-residents left the downtown area, their buildings were either sold, rented, or kept vacant for reasons related to childhood memories. The sold and rented buildings were kept for residential use, commercial use, turned into Diwan or donated for cultural use. Moreover, their houses were sold to or rented by Egyptian workers, Syrian families, or poor local families. Their local owners kept some of the buildings as they refused to leave the downtown area due to their childhood memories.

Housing Investments. Referring to previous attempts, providing new housing projects such as multi-story residential buildings in the downtown area is not a successful investment.

Social Groups. The findings revealed that the residential development in the downtown area could be targeted towards student housing, workers, tourists, employees, single, and double-family maximum. These social groups provide 24-hour activities to the downtown area. According to a local point of view, this revival will not bring back the prior residents but might attract a few family members who are still connected to the area's memories.

Theme 4: Supplying New Housing Projects to the Downtown Area: Creating new housing buildings will not succeed. Residential rehabilitation will fail in the current situation unless the stakeholders have serious supported action. Figures 4 and 5 reflect the results of the interviews and site visits.

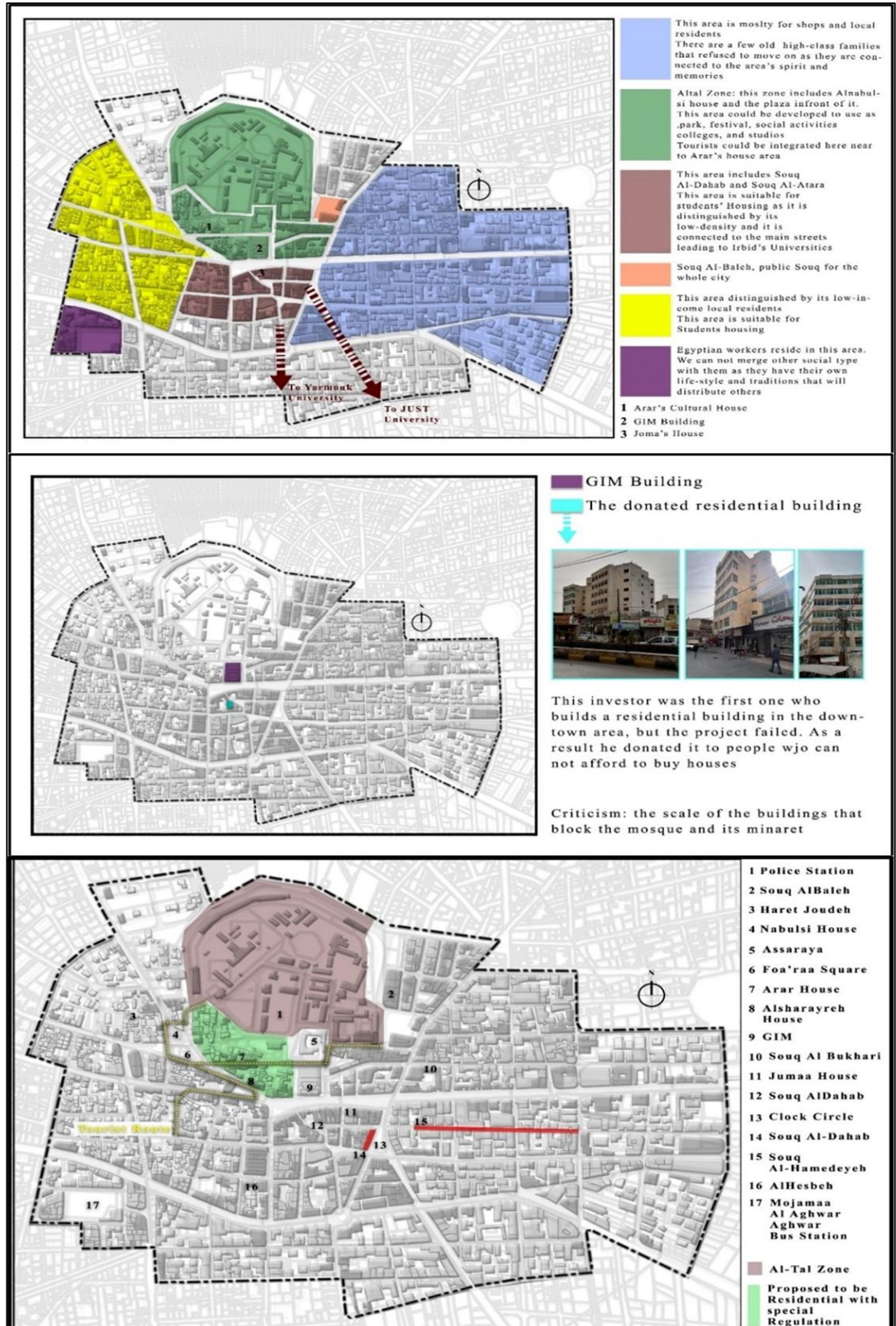


FIGURE 4 - INTERVIEW FINDINGS
Source: Researchers, 2022

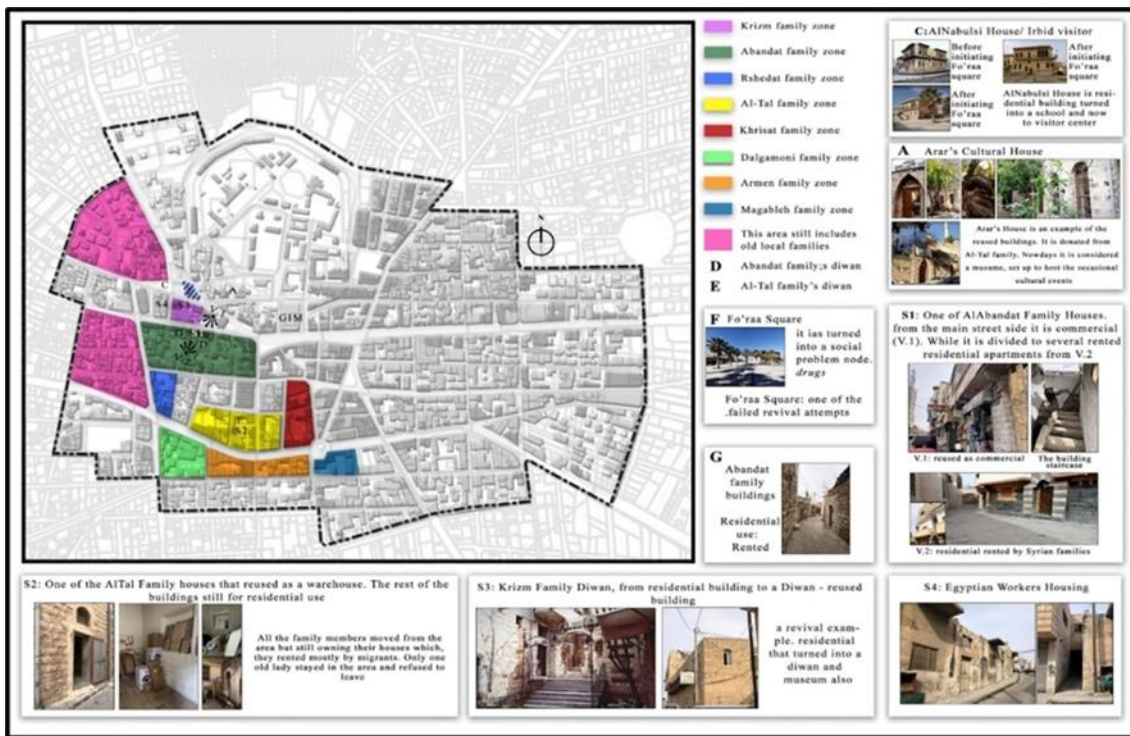


FIGURE 5 - SITE VISITS FINDINGS
 Source: Researchers, 2022

4.2. Quantitative Data Analysis

- a. Downtown Irbid Residents: The total sample respondents were 24.9% downtown resident-owner, 10.4% downtown resident-tenant, with 64.7% varying between downtown ex-residents and visitors.
- b. Reasons of residence: Table 1 shows that people mostly live in downtown Irbid due to social connections, as 49% of respondents who still live in downtown Irbid clarify their residency to be near family and friends.

TABLE 2 - REASONS OF RESIDENCE PERCENTILES

	Responses		Percent of Cases
	N	Percentage	
Close to services and entertainment	54	10.8%	11.4%
Close to work	36	7.2%	7.6%
Affordable	14	2.8%	3.0%
Friends/Family	98	19.5%	20.7%
I used to live there	129	25.7%	27.3%
I do not live there	171	34.1%	36.2%
Total	502	100.0%	106.1%

Source: Researchers, 2022

- c. Reasons for visiting the Downtown Area: Most respondents visit the downtown area for recreation/entertainment reasons, making 34.9% of the total sample responses, followed by visiting family and friends, living downtown, work, shopping, and school reasons, respectively. (Table 2).

TABLE 2 - REASONS FOR VISITING DOWNTOWN AREA PERCENTILES

	Responses		Percent of Cases
	N	Percent	
Recreation/Entertainment	211	34.9%	44.6%
Work	82	13.6%	17.3%
Living in the center	115	19.0%	24.3%
School	15	2.5%	3.2%
Visiting Family Friends	122	20.2%	25.8%
Shopping	60	9.9%	12.7%
Total	605	100.0%	127.9%

Source: Researchers, 2022

d. Willing to live in the downtown area if there is a suitable housing option: 53.1% of the respondents stated that they are not willing to live in the downtown area even if there is a suitable housing option. Furthermore, 68.3% of the sample refers to their willingness to leave downtown Irbid if they can afford it. They clarified their answers due to the factors mentioned in Table 3. Other respondents clarify the rejection of moving from downtown Irbid due to cultural values and locating near services and facilities.

TABLE 3 - REASONS FOR LEAVING IRBID DOWNTOWN

	Responses	
	N	Percentage
Noise	89	19.6%
Not safe	72	15.9%
High Traffic	91	20%
Need development	82	18.1%
Overcrowded	79	17.4%
Pollution	15	3.3%
Bad Services	26	5.7%
Total	454	100.0%

Source: Researchers, 2022

4.2.1. Descriptive Analysis - Evaluation of Downtown Irbid Current Situation

The following is a descriptive analysis for the median value was conducted using SPSS software. The questions in this part were constructed with a Likert scale of 1 to 5, where (1) means strongly disagree, (2) means disagree, (3) means moderate, (4) means to agree, and (5) means strongly disagree. Considering that the difference between the highest and lowest value is $(5-1=4)$ and that the duration of the period is $(4/5=0.8)$, the outputs for each question/variable were determined as shown in Table 4.

TABLE 4 - INTERVAL SCALE

Likert scale	Interval	Description
1	1 – 1.80	Strongly disagree
2	1.81 – 2.60	Disagree
3	2.61 – 3.40	Moderate
4	3.41 – 4.20	Agree
5	4.21 – 5.00	Strongly agree

Source: Researchers, 2022

This analysis was performed for questions 11, 12, 13, and 14. These questions tend to evaluate downtown Irbid's current situation from the locals' side. Table 5 reports the median values for these variables.

TABLE 5 - DESCRIPTIVE ANALYSIS FOR QUESTIONS 11, 12, 13, AND 14

Statement/Variable	N	Minimum	Maximum	Median	Std. Deviation
Recommend Downtown Irbid as a Good Place to Live	473	1	5	3.00	1.390
Feeling Safe in Downtown During the Day	473	1	5	4.00	1.188
Feeling Safe in Downtown During Night	473	1	5	3.00	1.382
Prefer to Live in Downtown Irbid	473	1	5	3.00	1.408

Source: Researchers, 2022

After running the median analysis using SPSS, the result shows that the variables that recommended downtown Irbid as a good place to live felt safe in downtown Irbid during the night and preferred to live in downtown Irbid reported a moderate description.

4.2.2. Descriptive Analysis – Downtown Revitalization

The following questions tend to explore the appropriate revitalization actions for downtown Irbid. In this section, questions 24, 25, 26, 30, 31, 32, 33, and 35 were analysed with a descriptive analysis for the median value using SPSS, as they were constructed with a Likert scale. The result of this analysis is shown in Table 6.

TABLE 6 - DESCRIPTIVE ANALYSIS FOR QUESTIONS 24, 25, 26, 30, 31, 32, 33, AND 35

Statement/Variable	N	Minimum	Maximum	Median	Std. Deviation	Description
Current Situation Satisfaction	473	1	5	2.00	1.109	Disagree
Downtown is an active place	473	1	5	3.00	1.190	Moderate
Downtown revitalization efforts are important	473	1	5	5.00	1.428	Strongly agree
Availability of housing options	473	1	5	3.00	.997	Moderate
Quality of Housing	473	1	5	2.00	1.067	Disagree
Using Upper Floors for Housing Options	473	1	5	3.00	1.224	Moderate
The Need for More Housing Options	473	1	5	3.00	1.294	Moderate
Importance of Tourism	473	1	5	4.00	1.166	Agree

Source: Researchers, 2022

a. Main Problems of Downtown Irbid: Referring to Q27, the main problems in the city that received the highest responses were overcrowding, discomfort, and not enough housing options, respectively (Table 7).

TABLE 7 - DOWNTOWN IRBID MAIN PROBLEMS PERCENTILES

	Responses		Percent of Cases
	N	Percentage	
Not Safe	156	15.4%	33.0%
Overcrowded	354	34.9%	74.8%
Discomfort	306	30.1%	64.7%
There are not enough housing options.	171	16.8%	36.2%
Lack of pulling factors	4	0.4%	0.8%
Bad planning	12	1.2%	2.5%
Bad transportation network	4	0.4%	0.8%
Bad Infrastructure	2	0.2%	0.4%
Narrow Streets/Sidewalks & No parking	6	0.6%	1.3%
Total	1015	100.0%	214.6%

Source: Researchers, 2022

- b. Downtown revitalization actions: 62.2% of the respondents supported the redevelopment of vacant buildings and properties, including historic preservation, along with the addition of more housing options.
- c. Supporting housing development in downtown Irbid: 78% of the respondents' support housing development in downtown Irbid.
- d. Most pressing housing need: The result showed that according to the respondents, the most pressing housing need is for young people and families' housing options, followed by tourist housing and student housing, respectively (Table 8).

TABLE 8 - MOST PRESSING HOUSING NEEDS

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Student Housing	58	12.3	12.3	12.3
Labor Housing	51	10.8	10.8	23.0
Better options for young people/families	192	40.6	40.6	63.6
Housing for the elderly	29	6.1	6.1	69.8
immigrants housing	10	2.1	2.1	71.9
Housing on the upper floor	30	6.3	6.3	78.2
Tourist Housing	103	21.8	21.8	100.0
Total	473	100.0	100.0	

Source: Researchers, 2022

4.2.3. Descriptive analysis - Prior residents of the Irbid downtown

- a. Reasons for leaving the city center: Most respondents related it to the overcrowded factor followed by discomfort, moving to the suburbs, and safety factors, respectively (Table 9).

TABLE 9 - REASONS BEHIND LEAVING THE DOWNTOWN AREA PERCENTILES

	Responses		Percent of Cases
	N	Percentage	
Not safe.	29	13.6%	22.5%
Overcrowded	72	33.8%	55.8%
Discomfort	65	30.5%	50.4%
Moving to the outskirts of the city	43	20.2%	33.3%
No_Single_Houses	1	0.5%	0.8%
Marriage	1	0.5%	0.8%
Far from Work	2	0.9%	1.6%
Total	213	100.0%	165.1%

SOURCE: RESEARCHERS, 2022

b. Moving back to the Downtown Area: Most respondents reported that they were unwilling to move back to the downtown area, making up 76.7% of the total sample. They related their answer due to the factors mentioned in Table 10.

TABLE 10 – MOVING BACK TO DOWNTOWN IRBID – UNWILLING FACTORS

	Responses	
	N	Percentage
High Traffic	13	10.5%
Disturbance	34	27.4%
Abandoned at night	25	20.2%
Not safe	18	14.5%
I live in a better place now	6	4.8%
Crowded	16	12.9%
Lost its identity	1	0.8%
Need development	7	5.6%
Not suitable for residential use	4	3.2%
Total	124	100.0%

SOURCE: RESEARCHERS, 2022

The table above shows that most of the responses were for the (disturbance) factor, which makes up 27.4% of the total sample responses.

c. Housing situation after relocation: 45% of ex-residents rented their houses. Their houses were rented mainly by Syrian refugees or Egyptian workers. Other ex-residents left their houses vacant or reused them for commercial functions. Few simply demolished their old buildings.

4.3. Suitable socio-economic groups for the Downtown Irbid

This study revealed that revitalizing downtown Irbid could be achieved through residential and housing redevelopment. This approach that attracts specific social groups to the downtown area is a part of an integrated plan. It is an advanced step after rehabilitation and problem-solving. The residential redevelopment requires different facilities and functions that suit the targeted social groups to attract them to come and live in the area. Accordingly, GIM proposed to provide different functions and facilities in the downtown area to attract specific social groups.

Based on the pull/push theory and the current situation in downtown Irbid along with the findings of this study, the housing development in the downtown area will start with investments in existing stocks. This redevelopment is implemented by reusing buildings, recharging abandoned buildings, and using the upper floors of the building for residential purposes. As a previous step, the targeted social groups for downtown Irbid should be carefully highlighted to allocate the location and type of housing units provided.

Each section in this study came up with a group of suitable social groups to be attracted to add to the downtown area like the following:

Literature Findings: Downtown housing attracts elderly residents, non-family households, and young professionals.

Irbid City Background Findings: Downtown Irbid Housing attracts migrating families, workers, tourists, and students.

Qualitative Findings: The findings revealed that the revitalization process and residential development in downtown Irbid would not bring ex-residents from local families who abandoned the downtown to live back in the area. Furthermore, this part clarifies that residential redevelopment in the downtown is not suitable for some social groups such as families with children as this group needs a set of requirements not achieved in the downtown area. This redevelopment could target a specific group such as students, workers, tourists, employees, single families, and double families. These social groups provide 24-hour activities to the downtown area. However, among this range of social groups, the qualitative search agrees on two specific social groups, the students and the tourists.

Quantitative Findings: The findings revealed that downtown ex-residents are unwilling to live back in the area. Therefore, this social group will be removed from the research. The respondents supported housing development for young families, tourist, and students in downtown Irbid as the most pressing housing need. In Sum, only two social groups were mutual among the above-mentioned groups are the students and tourists. Therefore, the research focused on the pulling factors affecting these two groups to determine the suitable location of each of them.

4.3.1. Tourists Housing:

After analysing and examining the data in this study, it is recommended to place the tourist group near the archaeological hill (Altal zone) due to ongoing rehabilitation and tourist attraction in the area as shown in figure 6. Its distinctive historical and archaeological character distinguishes the area, including many old buildings.

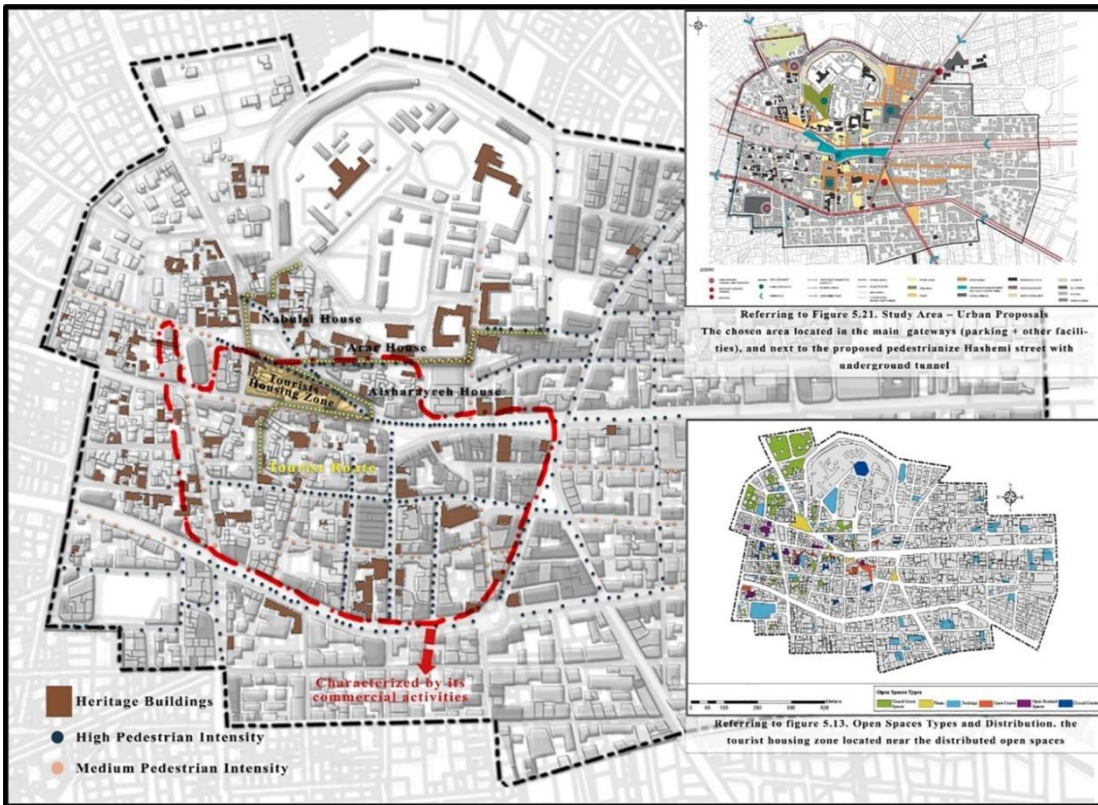


FIGURE 6 - TOURIST HOUSING ZONE WITHIN THE STUDY AREA
Source: Researchers, 2022; GIM, 2022

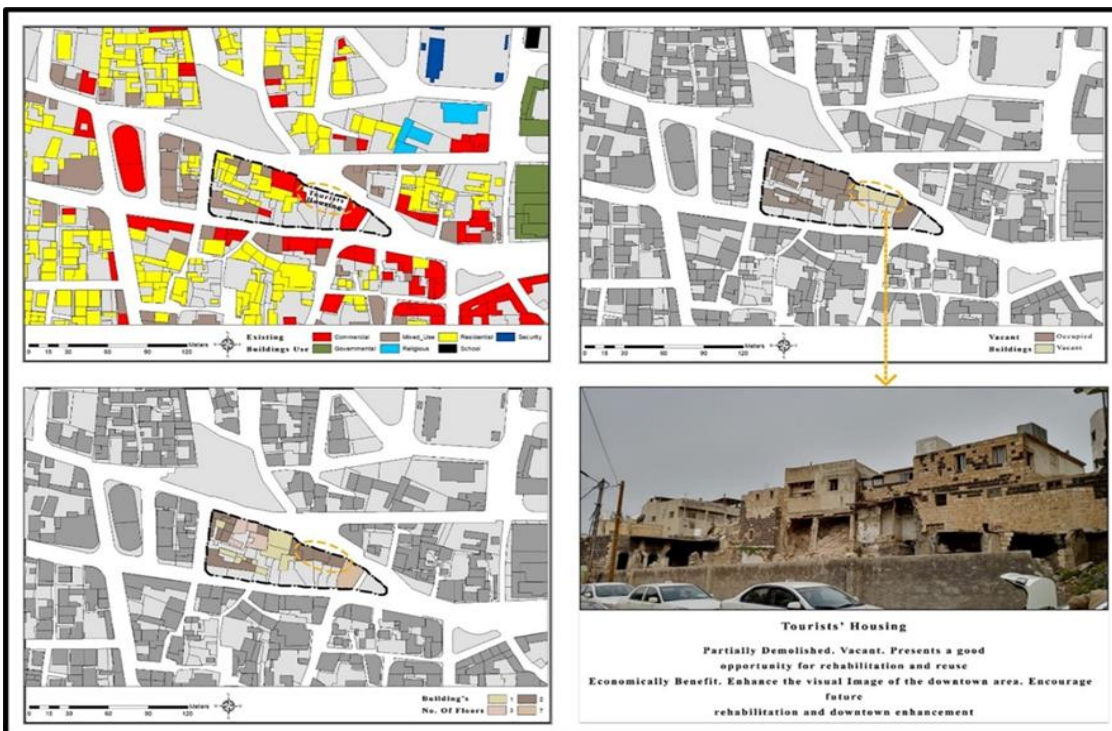


FIGURE 7 - PROPOSED TOURIST HOUSING UNITS
SOURCE: RESEARCHERS, 2022

This area was chosen for tourist housing due to the following factors: it is located within zone 1, which GIM defines as the area for heritage rehabilitation; it is located within the tourist route determined by GIM; surrounded by several cultural buildings; near landmarks (such as Arar's house, Alnabulsi house, and Alsharayreh house); it is located within the main gateways (parking and other facilities) and next to the pedestrianize Hashemi steer as indicated in GIM's urban proposals; the area is within a high and medium pedestrian traffic; near the distributed open space, and within an area that is characterized with its commercial activities. Together, it helps tourists live the experience they are seeking and be near heritage buildings and different facilities simultaneously. Figure 7 presents the tourist housing block showing the vacant buildings, current uses of the surrounding buildings, the number of floors of the buildings, and the pictures of the proposed units to be reused for tourists' housing.

4.3.2. Students' Housing:

The selected area for the housing of the researchers is presented in Figure 8.

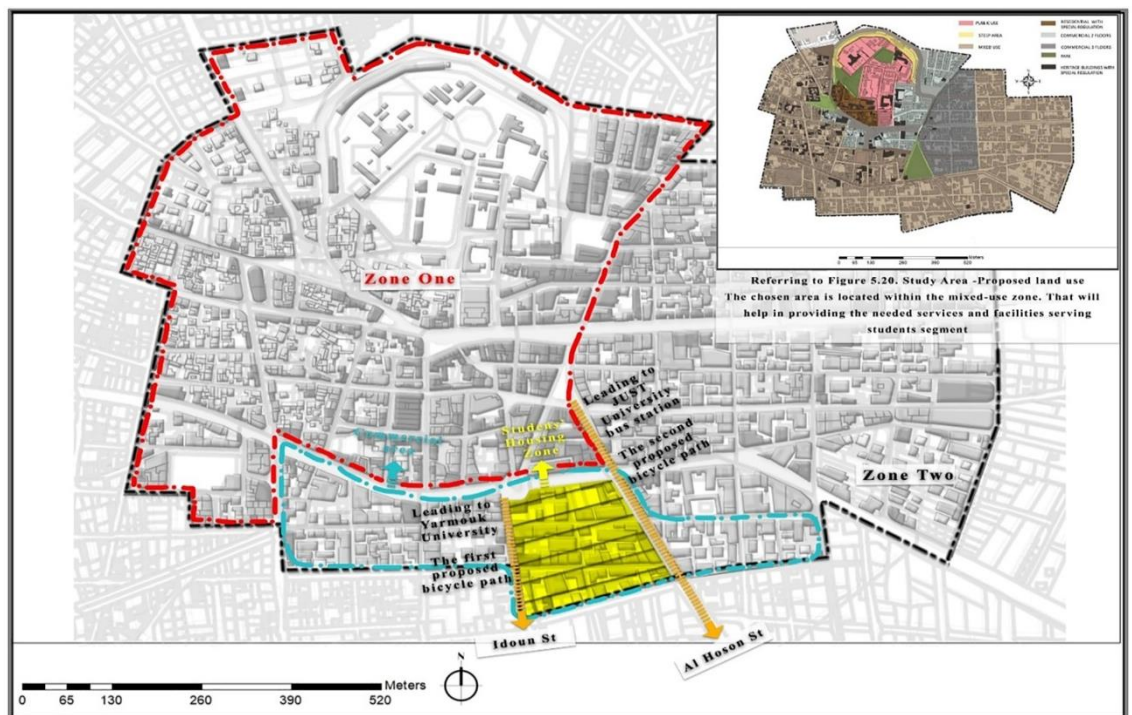


FIGURE 8 - STUDENTS' HOUSING ZONE
Source: Researchers, 2022; GIM, 2022

The location was chosen based on the following pulling factors; (1) The interview with GIM's members revealed a suggestion to integrate a bicycle path connecting the downtown area with Yarmouk University and another bicycle path connecting the downtown area with the JUST University bus station. Therefore, the land on both sides of the bicycle path presents an opportunity for housing development targeting the students' segment. (2) The study revealed that it is suitable to merge the students with local families and

place them near services and facilities such as stores, restaurants, and supermarkets. Furthermore, (3) GIM's study suggests that housing units should be implemented in zone two, as zone one is a vital area with high land and property value that should be utilized for investments and investor attraction.

Figure 9 presents the students housing block showing the vacant buildings, current uses of the surrounding buildings, the number of floors, and the pictures of the proposed units to be reused for tourists' housing.



FIGURE 9 - PROPOSED STUDENTS HOUSING UNITS

Source: Researchers, 2022

5. CONCLUSIONS

This study revealed that downtown Irbid suffers from the following problems: (1) Rapid population growth resulted from the waves of immigrants, refugees and natural population growth. This rapid growth led to major challenges regarding housing, services, infrastructure. (2) Secure zones and social problems nodes. Field observations and initial site visits revealed several nodes of social problems. These nodes can be summarized as daytime/night-time secure zones and negative behaviours. These behaviours are primarily about the drug addict zone and bullying zones. In summary, the Irbid downtown lacks occupancy throughout the night, weekends, and holidays, causing the appearance of the crime scene and social problem nodes and the absence of a sense of belonging. (3) Downtown Irbid common reported problems. The area suffers from the following problems: high traffic, transportation problems, lack of public spaces

and parking area, small plots area, ownership fragmentation, lack of services, crowdedness, lack of facilities and attraction points, environmental problems, infrastructure problems, noise, lack of safety especially during the night, insufficient housing options, lack of planning, narrow streets and sidewalks, and identity lost. Referring to the theories mentioned earlier in this study, adding a residential base to the downtown area increases activity level after regular business hours.

The housing stock adds activity to the streets in the city on evenings and weekends and creates a greater sense of security, helping make the streets in Irbid downtown healthier and more vibrant. As a result, after examining the different parts of this study, the researcher came up with four housing development strategies: (1) attracting new social groups to live in the downtown, (2) improving downtown Irbid for a residential population by providing different facilities and functions, (3) marketing the downtown area using the pulling factors, and (4) improving the climate for developers of downtown area housing.

Based on the pull/push theory and the current situation in downtown Irbid along with the findings of this study, the housing development in the downtown area will start with investments in existing stocks. This redevelopment is implemented by reusing buildings, rechanging abandoned buildings, and using the building's upper floors for residential purposes. Furthermore, this study revealed two social groups to be integrated into tourists and students from the downtown community.

In agreement with this study, it reveals that there is no single project or one solution to revive downtowns, as the revitalization process is an incremental process involving different groups and aspects. The researcher recommends conducting more studies on the services, functions, and facilities needed to be added to the downtown area to serve current and future residents of the downtown, and being a part of this integrated plan, adding to the efforts already done in this study along with GIM efforts to complete the improvement of the downtown area.

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