

Documentation of Old Urban Areas for Regeneration Ideas in the Future, Khanaqa Neighborhood as Case Study

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Abstract

Globally, as the inhabitants of urban areas continue to grow, considerable pressure is placed on resources, necessitating the immediate need for effective improvements to the infrastructure in the area, particularly in terms of shelter, clean water, and waste. The built environment is a significant component of urban life. Controlling urban zones is thus one of the 21st century's important challenges in urban development, Erbil city is not far from this challenge. Erbil is one of the old cities in Iraq that consists of many old urban areas which in years they will lose the ability to maintain their physical structure. Accordingly documenting old neighborhoods of Erbil city could play a staminal role in helping future regeneration works. The study conducts a documentation process that prepares a set of layered maps of the existing situation of the Khanaqah neighborhood that help in regeneration works within the area in the future. Khanaqa neighborhood is one of the oldest bad-conditioned areas in Erbil city. This area did not receive any maintenance or renovation works besides its obvious problems such as Crowding problems because it's inside the central business district, traffic problems because of the development of the city, lack of car parking, there is no consideration for pedestrian, the lake of greenery, and the exhausted situation of the neighborhood are main problems. The aim of the study is to describe all the problems that faced the neighborhood to be a ready document for oncoming renovation works. The research demonstrates a descriptive methodology to explain the weak and strong points of the area through observation of the condition of the buildings, streets, and facilities in the neighborhood and comparing them with the standards. The research finds that the area needs to have a comprehensive renovation process to retain its cultural and historical values from deterioration and on the other hand to enrich the quality of commercial activities and social interactions in the area.

Keywords: Urban regeneration, old urban areas, documentation, Khanaqa neighborhood, Erbil city.

Gelecekte Yenileme Fikirleri için Eski Kentsel Alanların Belgelemesi, Khanaqa Mahallesi Örnek Alan İncelemesi

Özet

Küresel olarak, kentsel alanların sakinleri artmaya devam ettikçe, kaynaklar ve ilgili kaynaklar üzerinde önemli bir baskı oluşmakta ve bu da, özellikle barınma, temiz su ve atık açısından bölgedeki altyapıda etkin iyileştirmelere acil ihtiyaç duyulmasını zorunlu kılmaktadır. İnşa edilmiş çevre, kentsel yaşamın önemli bir bileşenidir. Kentsel bölgeleri kontrol etmek kentsel gelişimde 21. yüzyılın önemli sorunların biridir, Erbil şehri bu meydan okumadan uzak değildir. Erbil, yıllar içinde fiziksel yapılarını koruma yeteneğini kaybedecekleri birçok eski kentsel alandan oluşan Irak'ın eski şehirlerinden biridir. Buna göre, Erbil şehrinin eski mahallelerini belgelemek, gelecekteki yenileme çalışmalarına yardımcı olmada önemli bir rol oynayabilir. Çalışma, Khanaqah mahallesinin mevcut durumuna ilişkin bir dizi katmanlı harita hazırlayan ve gelecekte bölgedeki yenileme çalışmalarına yardımcı olan bir belgeleme süreci yürütmektedir. Khanaqah mahallesi, Erbil şehrinin en eski kötü durumdaki bölgelerinden biridir, bölge merkezi iş bölgesi içinde olduğu için kalabalık sorunları, şehrin gelişmesi nedeniyle trafik sorunları gibi bariz sorunlarının yanı sıra herhangi bir bakım veya yenileme çalışması yapılmaması, otopark eksikliği, yayalara önem verilmemesi, yeşillikler içinde göl olması ve mahallenin bitkin durumu başlıca sorunlardır. Çalışmanın amacı, mahallenin

karşılaştığı tüm sorunları, yaklaşan yenileme çalışmaları için hazır bir belge haline getirmektir. Araştırma, mahalledeki binaların, sokakların ve tesislerin durumunu gözlemleyerek ve bunları standartlarla karşılaştırarak alanın zayıf ve güçlü noktalarını açıklamaya yönelik betimsel bir metodoloji ortaya koymaktadır.

Anahtar Kelimeler: Kentsel dönüşüm, eski kentsel alanlar, dokümantasyon, Khanaqa mahallesi, Erbil şehri.

1. INTRODUCTION

The replacement of collapsed and abandoned old neighborhoods with a revitalized district in a matter of life quality is being discussed through underlined subject along with suggestive solutions to each problem analyzed and pointed, in addition, the advantages of regeneration of old urban areas have been unfolded in this research in order to encourage the startup of the regeneration process. Later on, the publishing of the research will show its openness to encouraging and support to start the revitalizing process. When Sustainable regeneration is the objective, its achievement will be sustainable development, which is directly related to the physical, social, economic, and environmental objectives of the community. Even though the result can be seen with time but the benefits and advantages can continue for generations. Urban regeneration study not only aims in revitalizing the urban area but also contributes to stopping the place from more deterioration. The research subject is addressed to the current situation of urban areas that need immediate response to regeneration in order to save one of the oldest areas in Erbil city and data collection is the root support for urban regeneration. Weak and strong points have been explained by monitoring the condition of the streets, buildings, and facilities of the district. The main point of this article is to indicate the location state of past and present and collect data that exist currently in the location along with historical background data of the location by then being analyzed, in addition, connecting the analysis and urban regeneration ideas with future researches.

1.1 Aim and Importance of the Study

The aim of the study is to describe all the problems that the neighborhood is facing, to be a ready document for oncoming renovation works and research related to the area regeneration works. The research will be ready data for the next study that is related to regeneration ideas and strategies for the case study area. Also, it will be an available document of the area that can be used for renewable works in the future.

1.2 Methodology

The study conducts a documentation process that prepares a set of layered maps of the existing situation of the Khanaqa neighborhood that help in regeneration works within the area in the future. The research demonstrates a descriptive methodology to explain the weak and strong points of the area through observation of the condition of the buildings, streets, and facilities in the neighborhood.

2. HISTORICAL BACKGROUND

2.1 Erbil City

Erbil is one of the oldest cities in the world, its history goes back to 6000 years ago when it started from an ancient settlement that later became the central citadel of the city (Morris 1994). The city

is situated in the northern part of Iraq; it has a distance of about 350 km with Baghdad city as the capital of Iraq (Rebaz, 2018). With the population growth in the citadel, the first urban expansion of the city started where small neighborhoods on the lower lands surrounding the citadel were formed such as (Mustawfi, Khanaqa, Taajil, and Arab). The Master plan of the city starts to grow from the Ancient Citadel in the center of the city in a circular rhythm, each circle represents a main street in the city and these circles are connected by straight roads which start from the center and intersect with all the circular roads. These roads named with their width size start from 30m Road and then 40m, 60m, 100m, 120m, and currently 150m road is under construction. (Almukhtar, 2016). Farming, tourism, and self-developed businesses are the mainstays of the city's economy. In addition, the peace and safety of the city have attracted investors to invest more than in other places in Iraq (Rebaz, 2018). Furthermore, the establishment of (The Erbil-International-Airport) in 2010 provided Erbil city with a great chance through connecting it to the majority of Middle-Eastern and European towns (Rebaz, 2018).

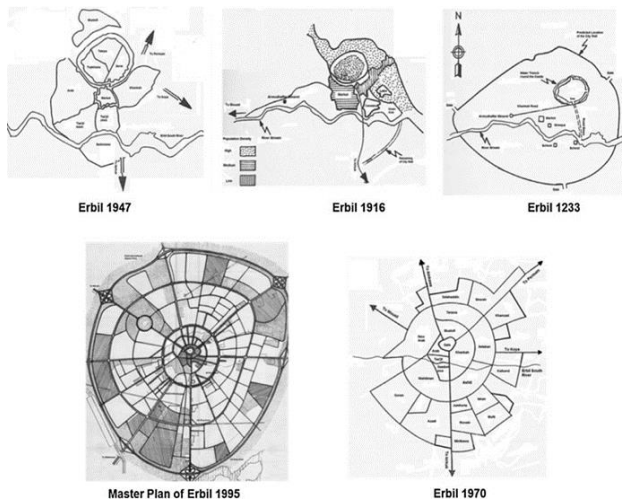


Figure 1: Urban Expansion of Erbil city along the History. (KRG, 2009)

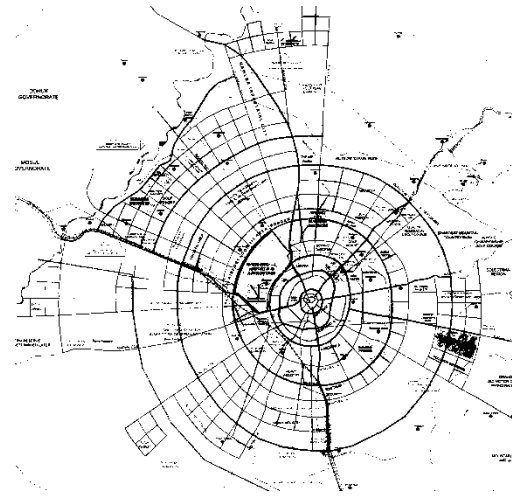


Figure 2: Master Plan of Erbil city 2030. (Al-handasah, 2007)

2.2 Khanaqa Neighborhood

The Khanaqa Quarter is one of the oldest areas in the city of Erbil. It was considered one of the most populated neighborhoods beside Arab and Taajil districts in the city (Ranja, 2020). Initially, Khanaqa is a Persian word that means “House” because of the existence of the (Khanaqa building) for widows and orphans inside the neighborhood. The establishment of the area and renovation of the (Khanaqa building) depended on the period of visitation of the well-known Islamic mystic (Mawlana Khalidy Naqshbandy 1779–1827) to the area. It was a residential neighborhood but recently with the changes and developments in urban areas in the city, it became part of the central business district for small and light businesses (Municipality, 1985).

3. URBAN REGENERATION (U.R.)

3.1 Concept of Urban Regeneration

Urban regeneration refers to the domain of public policy that deals with the restoration of economic and social activity or social function and re-building environmental quality in areas where those aspects have deteriorated (Chris Couch, 2003). The need for urban regeneration in urban areas arrived from the appearance of problems in the reduction of economic and social activities in urban centers, and the absence of governmental reactions to those problems. This approach of understanding is based on the idea of a community's downturn in economic activity, including the social functions and environmental difficulties, may be handled successfully as community matters more as commercial-social-environmental issues which occurred exist within this area. This idea received attention in governmental programs specifically serving socioeconomic hardship in urban areas at the end of the 1960s (McCarthy 2007).

3.2 Why Urban Regeneration is Important

Since we require to provide a convenient environment to the urban areas, working places, and living places for our generations and facilitate inhabitants to have and maintain a sustainable approach to life that is the reason urban regeneration is important. Besides of that urban regeneration is considered one of our community's most pressing issues, but at the same time, it presents a chance that we can keep increasing and reproducing the experience learned from several trial projects throughout the globe, to develop strong, inexpensive, yet sustainable structures (Agnes Schuurmans, 2018).

3.3 Aim of Urban Regeneration

The main objective is to build a realistic space that responds to society's desires (Tony, 2017). As every action that takes its place in urban has aims behind it, so diverse sorts of urban regeneration have diverse aims (Natra Tex, 2022). These might include:

1. Removing obstacles to grow properly and expanding job opportunities.
2. Increasing the appeal of locations for both inhabitants and investment parties.
3. Unleashing the capabilities of underserved communities.
4. Improving resident comfort with their departure location.
5. Providing opportunities for underserved populations.

3.4 Approaches to Urban Regeneration

The cities are considered the center of political strength also they are places of stimulating physical, social, environmental, and economic changes (Peter, 2017). Urban regeneration can be approached by solving the three problems in a locality which are economic problems, environmental problems also social and cultural problems.

3.4.1 Economic regeneration

Is concerned with building locations where people desire to make their livings and workings there, and is linked to social advancements, cultural advancements, environmental advancements, and also community restoration initiatives (NatraTex, 2022).

3.4.2 Social/Cultural regeneration

Refers to social treatments and techniques that concentrate on wellness, schooling and talent management, unique social environments, cultural events, family relationships, childcare, and children's health (Natra Tex, 2022).

3.4.3 Environmental regeneration

Focusing on land restoration and enhancement of the environment through the reclaiming of abandoned plots. It could be accomplished by developing urban greenery places, effectively managing green bands, redeveloping abandoned areas, and implementing environmentally responsible programs such as promoting pedestrians, riding, public transit, and recycling (Natra Tex, 2022).

The identity or character of the area and invention will be the primary aspects considered essential in innovative urban modification. While they appear to be totally separate very first appearance, when properly blended, they form the most important aspect in achieving successful accomplishment. (Helsinki and Hamburg) as an example study indicates, realizing the importance of local identity as a basic element in achieving urban transformation helps as a starting frame both in aspects of demands by society also in developing a maintainable view of the urban area (Carter et al. 1993; Castells 1997).

3.5 Liverpool as an Example of Urban Regeneration

Since the 1970s, Liverpool had passed through many different experiments of urban regeneration as a response to the reduction of population and losing half of the manufacturing industry. According to the Government program, the urban regeneration started with supporting local community development projects with a small amount of funding, which was including nursery classes, sports and community facilities, legal and housing advice centers, and language classes for immigrants. (Couch, 2003)

By the end of the 1980s and after going through many political changes, the government introduced a new program called "City Challenge" which allowed local authorities to lead local partnerships in bidding for central government money to support regeneration projects, which included a huge fund for regenerating the City Center East. (Couch, 2003).

In 1993, City Challenge and 20 other funding streams were replaced by a Single Regeneration Budget (SRB), and the work of several agencies was consolidated within one organization: English Partnerships. The SRB challenge continued in the same manner as the City Challenge with greater flexibility in the bidding process. So, with the help of a number of the local community and commercial organizations, the City Council made many bids for SRB funding, which included the North Liverpool Partnership. (Couch, 2003)

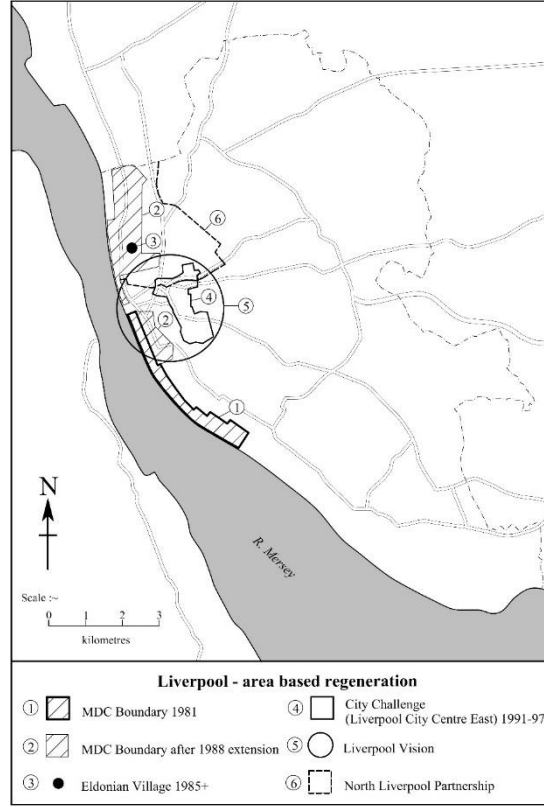


Figure 3: Liverpool: area-based regeneration. (Couch, 2003)

Currently, an innovative regeneration has converted Liverpool into one of the UK's premier attractive business destinations (Council, Regenerating Liverpool, 2022). This program is including the regeneration of four important parts and regions of the city which are:

1. The Knowledge Quarter
2. Ten Streets
3. Liverpool Science Park
4. Liverpool City Region Local Enterprise Partnership (Council, Regenerating Liverpool, 2022)

This part of the research will focus on one of those regions which are “Ten Streets” as an example of Urban Regeneration. Ten Streets Spatial Regeneration Framework (SRF) is a collaborative program with Liverpool City Council and its partners to regenerate the ten-street zone and its surrounding. The Ten Street framework area is a strategic historic area and an important part of Liverpool’s North Dock which was considered as one of UNESCO’s world heritage sites and includes buildings that reflect the industrial history of the area. (Council, TENSTREETS, 2017).

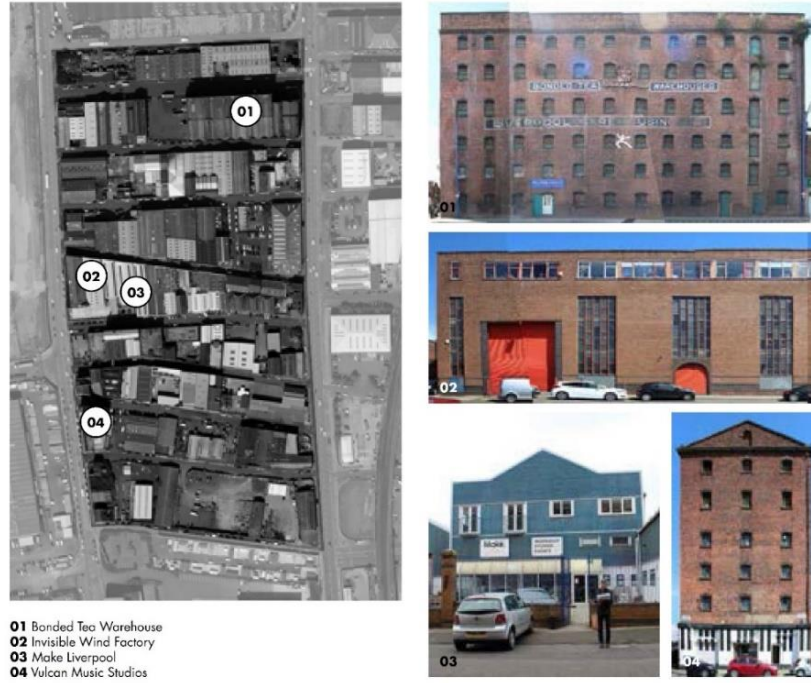


Figure 4: Ten Street Area and Buildings. (Council, TENSTREETS, 2017).

The Ten Street area has an important strategic location connecting the city center and Liverpool-superport. So, it has to be rehabilitated to create a business area and provide jobs for many people. The Development context plan was to reuse the existing buildings by renovating them or converting them to be used for different functions. (Council, TENSTREETS, 2017).

ref no.	site	proposal
ten streets framework area		
TS1	143-145 Great Howard Street	Convert public house to form hotel (13 bedrooms) with restaurant/cafe at ground floor.
TS2	50-52 Waterloo Road	5 storey building for business, general industrial and/or storage and distribution use within Use Classes B1, B2 and B8.
TS3	56-62 Waterloo Road	6 Storey Office Building.
TS4	Land at Chadwick Street, Little Howard Street and Great Howard Street	2 storey retail warehouse (Use Class A1) for storage and sale of engineering supplies.
TS5	Southern Warehouse	128 bed apart-hotel, restaurants and assembly/ leisure plus car parking.
TS6	Tobacco Warehouse	538 residential apartments, 1750 sqm public exhibition space, 4,175sqm offices; and car parking.

Figure 5: Development Context (proposals). (Council, TENSTREETS, 2017).



Figure 6: Development Context (plan). (Council, TENSTREETS, 2017).

The development plan of the Ten Street area started with creating ten development principles which became the design code for the renovation process. (Council, TENSTREETS, 2017). Finally, after collecting the required information about the site and having the Development principles, the new proposal for the master plan can be formed by applying the development principles to the existing area and its buildings which includes retaining many heritage characteristics and creating new paths and squares. (Council, TENSTREETS, 2017).

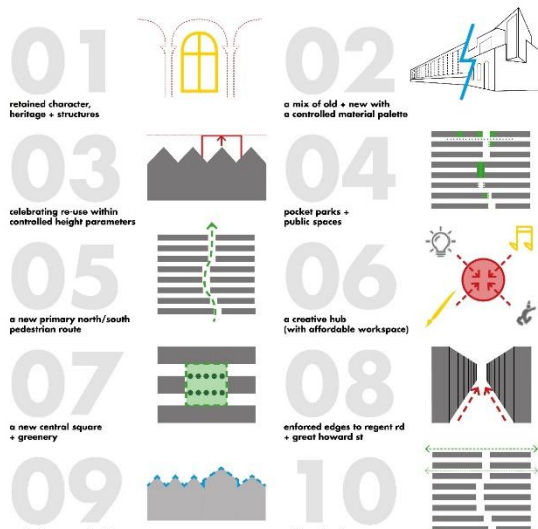


Figure 7: Development principles (ten-point design code). (Council, TENSTREETS, 2017).

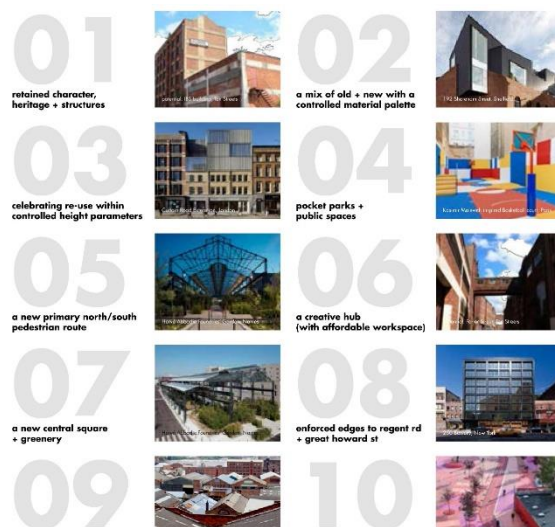


Figure 8: Application of Development principles on the existing area. (Council, TENSTREETS, 2017).

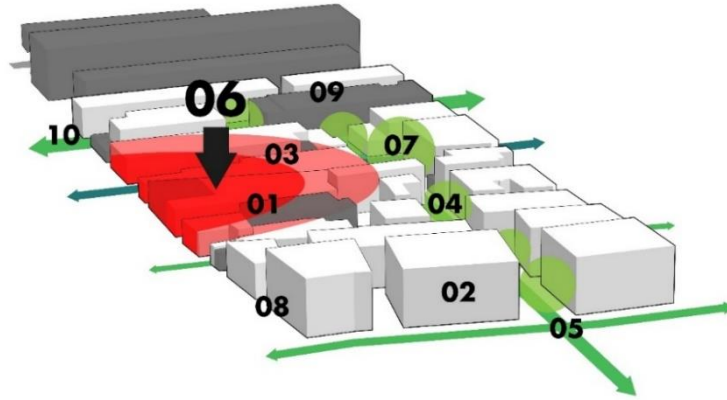


Figure 9: Illustrative Masterplan. (Council, TENSTREETS, 2017).

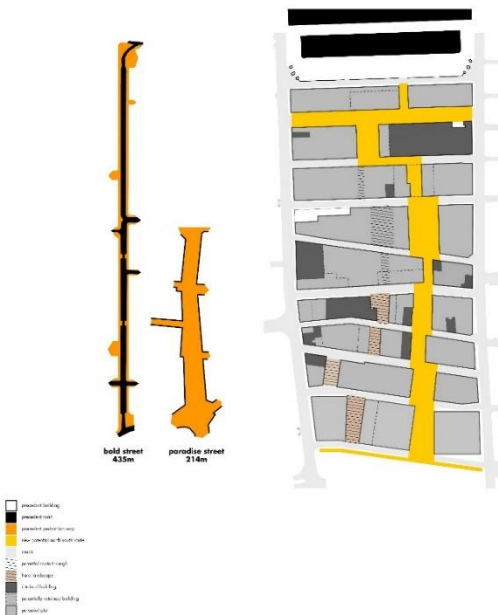


Figure 10: New primary north/south pedestrian route. (Council, TENSTREETS, 2017).



Figure 11: A new central square + greenery. (Council, TENSTREETS, 2017).

4. CASE STUDY: KHANAQA AS A HISTORICAL NEIGHBORHOOD OF ERBIL CITY

The process of data collection started by getting the general map of the area from the municipality and then by site observation process all the buildings, streets, and minor roads were checked in terms of land use, areas, building heights, building orientation, building condition, finishing materials of façades, built-up areas, number of floors, street widths, and intersections (nodes). Moreover, the traffic density of pedestrians and vehicles in the site was measured by counting the number of vehicles and people passing through the corners of the main intersections (nodes) of the site during rush hours of the day.

4.1 Land Uses of Khanaqa Street

Various types of land use in the area are presented (figure 12) including residential, preserved, commercial, mixed-use, open space, social, streets, grave yard, and governmental lands within a total of 24-hectare area. The chart illustrates a high percentage of land use in streets 26% and commercial 22.6% parts and the lowest percentage of 1.3% in the residential part.

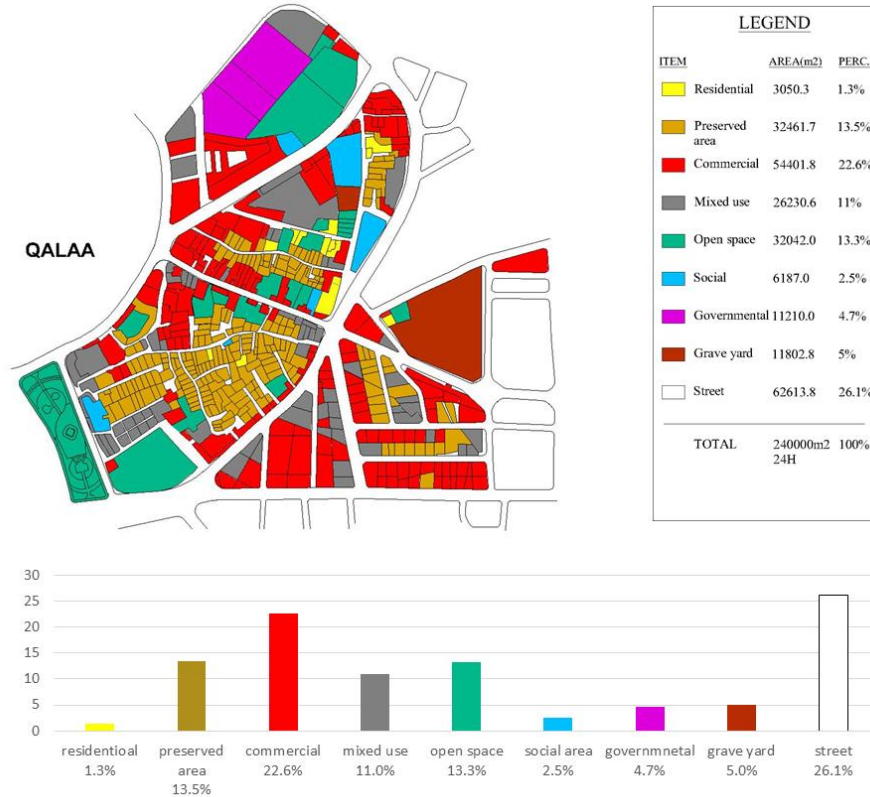


Figure 12: Land use map of Khanaqa neighborhood.

The map in (figure 13) determines two types of land, residential land, and preserved residential lands. The chart shows a high percentage of preserved lands about 91.4% in the area compared to the residential lands which still there are inhabitants inside the buildings.

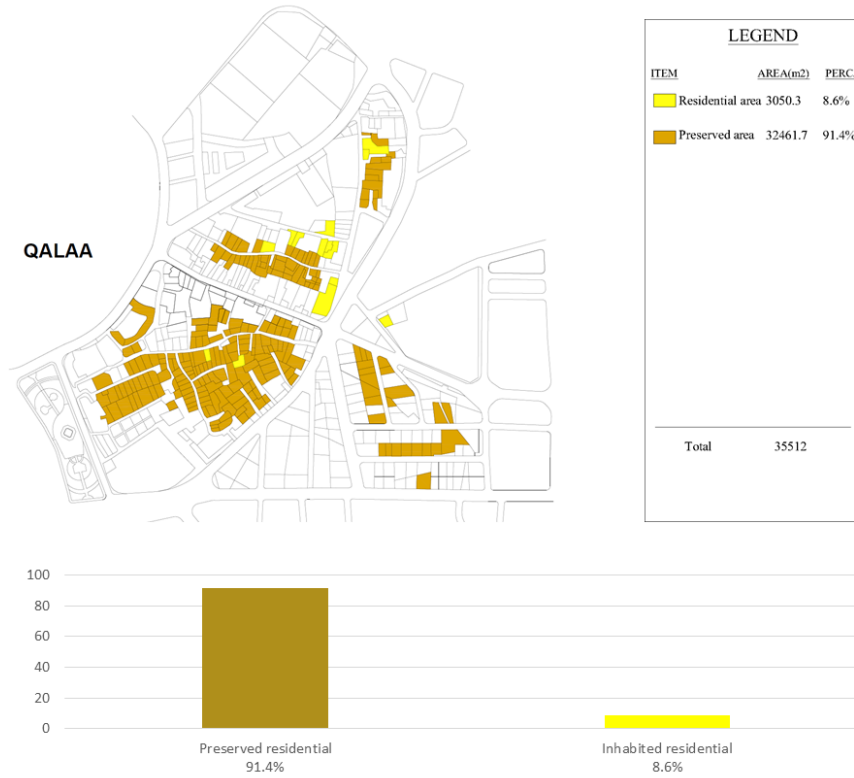


Figure 13: Residential land use map of Khanaqa neighborhood.

The commercial lands include shops, mixed uses, storage, hotels, and restaurants as shown in (figure 14) and the chart point out the highest percentage of lands in which they are shops and mixed uses about 63.9% and 33.8%.

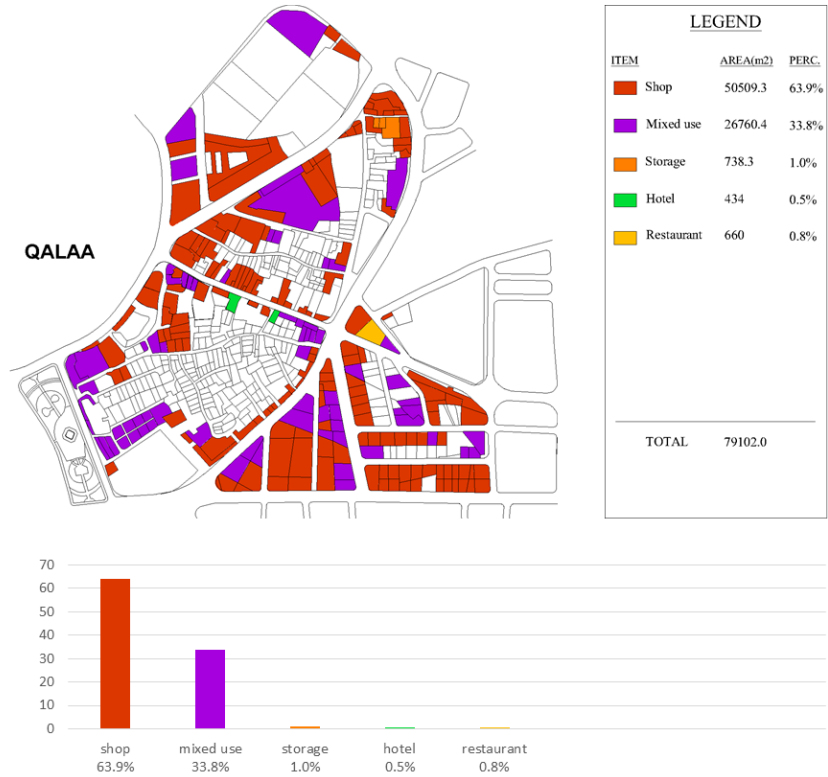


Figure 14: Commercial land use map of Khanaqa neighborhood.

The mixed-use buildings (figure 15) have different functions such as shop & storage, residential & storage, residential & shop, and hotel & shop. The mixed-use between shop & storage shows maximum level among other mixed-use buildings with a 78% percentage.

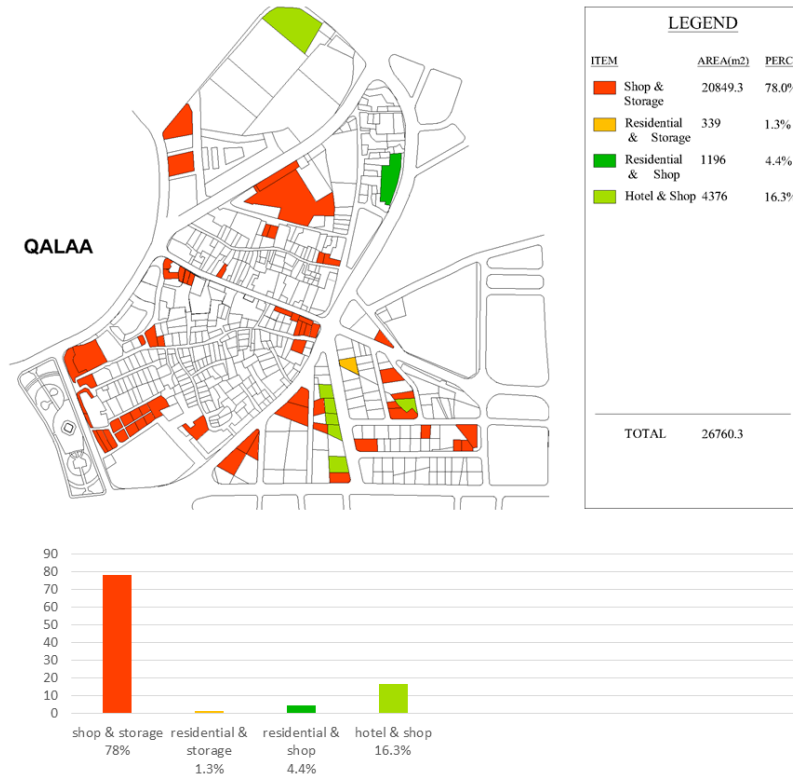


Figure 15: Functions of mixed-use buildings map of Khanaqa neighborhood.

Orientation is important to maintain comfortability in living spaces for inhabitants throughout the year. Erbil city has a hot-dry climate in summer, considering the high temperature that starts from the month of June and continues to September (Weatherspark, 2022), it's better to face longer facades of buildings to the South and North in this way the buildings receive solar exposure in a minimum level (Ayeb, 2016). Figure 16 indicates the orientation of each land in the area, also the chart shows that buildings are mostly oriented to North-East 24.2% and South-West 21.9% percent.

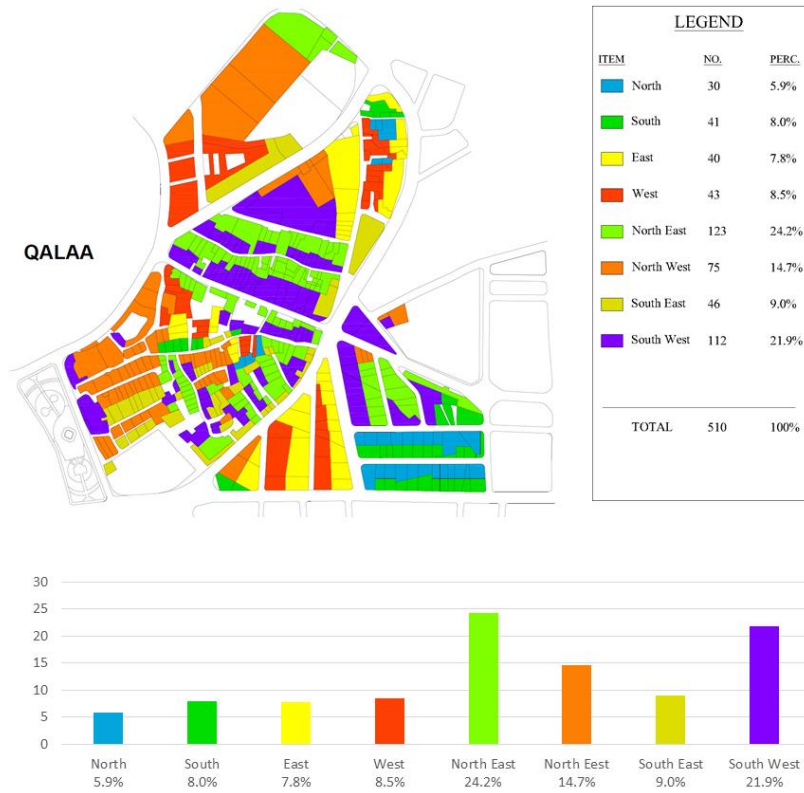


Figure 16: Building orientation map of Khanaqa neighborhood.

The physical situation of buildings in (figure 17), defines the building condition according to the statutes like bad, medium, and good conditions. Bad-conditioned buildings are partially ruined, physically in a weak condition that cannot be used. While medium conditioned once are physically in a weak condition yet can be used with little maintenance. But well-conditioned buildings are physically in a good condition that can be used for many years. Also, the chart shows that there is a high percentage of bad 43% and medium 39.8% conditioned buildings.

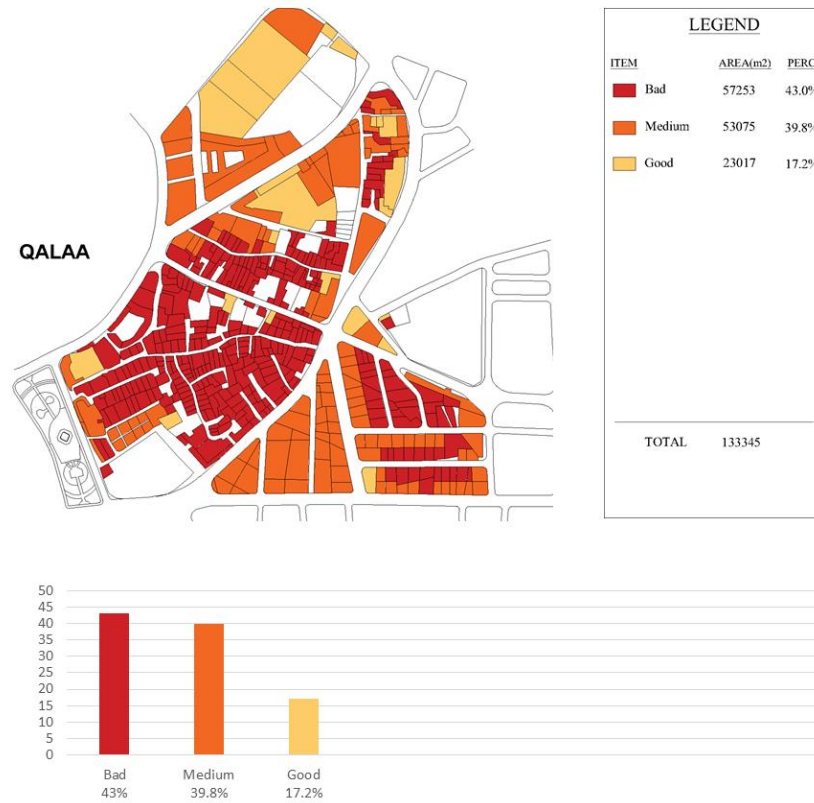


Figure 17: Building condition map of Khanaqa neighborhood.

Various types of materials are used in the buildings of the Khanaqa neighborhood which contain concrete, brick, alucobond, glass, concrete block, human stone, alabaster, ceramic, and corrugate. The chart in (figure 18) illustrates a high percentage in the usage of concrete 46.3% and brick 40.8% materials in the area. They used bricks materials from decades ago but still. They remained as the main materials of the buildings.

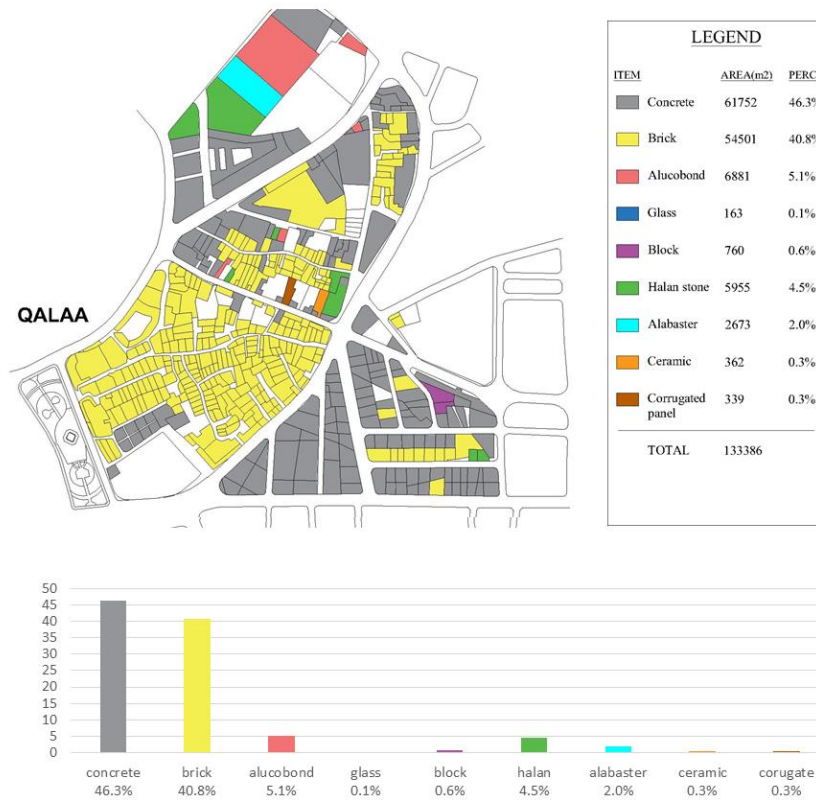


Figure 18: Building material map of Khanaqa neighborhood.

The built-up area was calculated for each building in the neighborhood and percentages according to the average built-up area. The chart in (figure 19) shows a minimum percentage of 0.77% from the areas between 1-49 sqm, and a maximum percentage of 17.43% from the areas between 100-199 sqm.

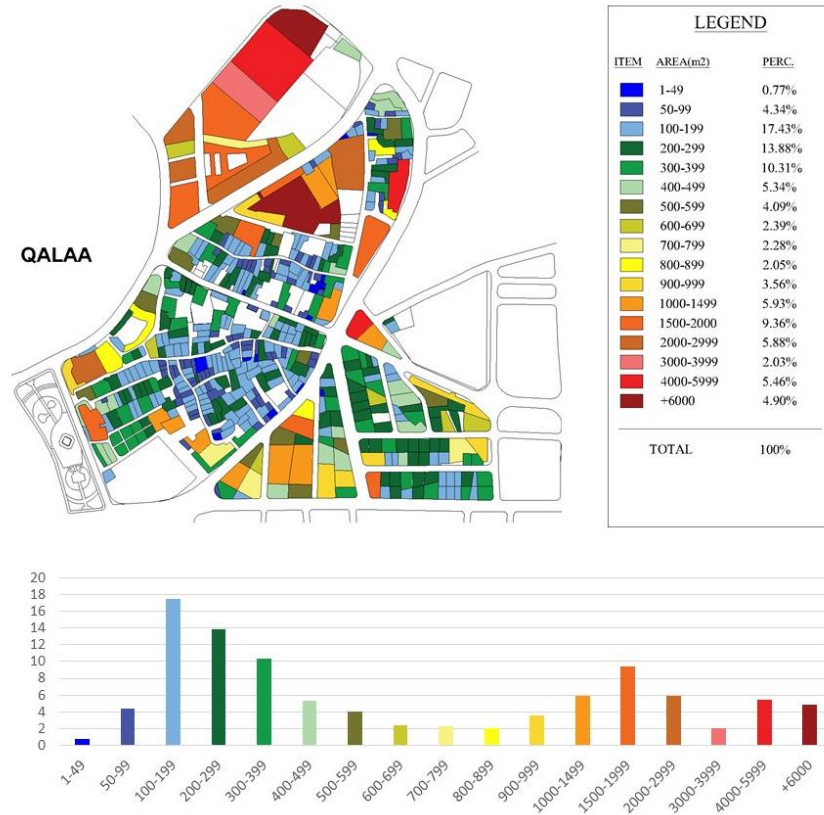


Figure 19: Built up area map of Khanaqa neighborhood.

The building heights start from 1 story to 6 stories in the Khanaqa neighborhood with different percentages that are shown in (figure 20), and the chart illustrates a high percentage of 61.4% in one-story buildings and a low percentage of 1.1% in five stories building in the area.

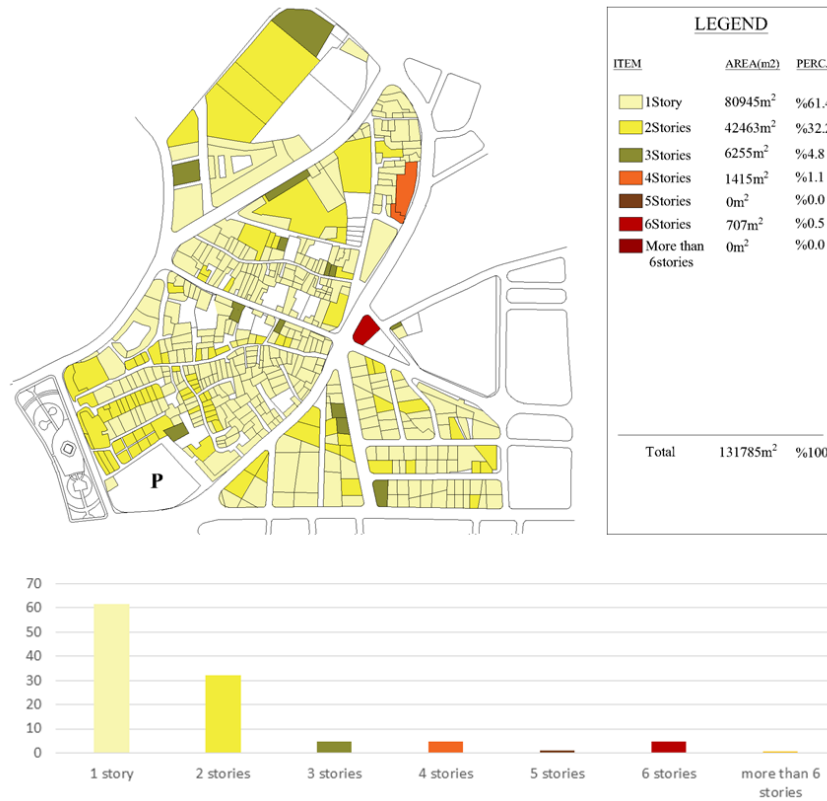


Figure 20: Building heights map of Khanaqa neighborhood.

4.2 Streets in Khanaqa Neighborhood

The (figure 21) shows dead-end streets that are defined with red color and (figure 22) shows dead spaces which are defined with black color. Both figures indicate waist accumulation through determined spaces by the users of the area.



Figure 21: Dead end streets map of Khanaqa neighborhood.



Figure 22: Dead spaces map of Khanaqa neighborhood.

The area owns streets with different width that starts from 3 meters to 21 meters. Figure 23 illustrates a range of street widths with their area and percentage, at the same time the neighborhood has the highest percentage in the street's width between (6-8.9m) and the lowest percentage in the street's width between (3-5.9m).

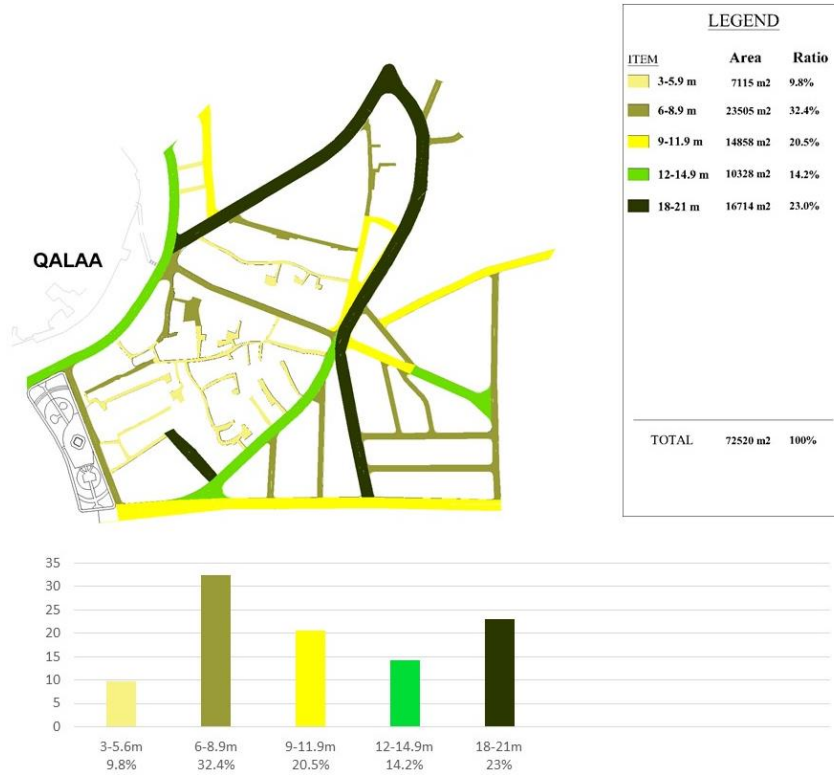


Figure 23: Street width map of Khanaqa neighborhood.

The streets in Khanaqah are divided into two types of functions whether they are residential or commercial roads recently. The chart shows that most of the streets become commercial streets in the neighborhood with a percentage of 86.6% which is higher than the residential streets with 13.4%. Also, the map in (figure 24) determines that wider streets are the one that shows commercial activities and functions.

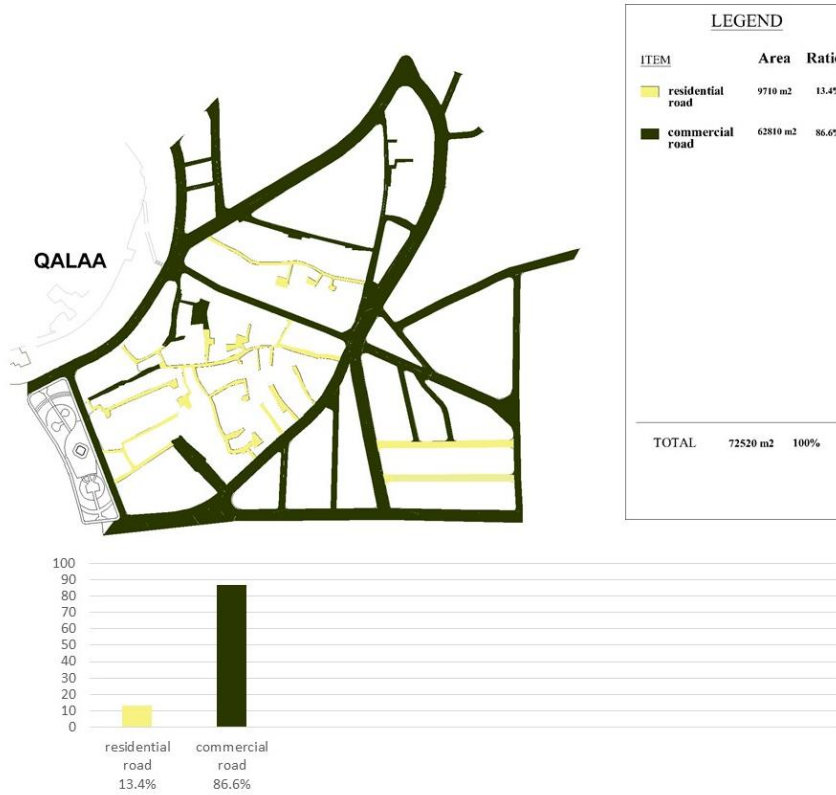


Figure 24: Function of street map of Khanaqa neighborhood.

The detailed top view and sections of the determined intersections are shown in (figure 25 and 26). The drawn sections of the first and second intersection in the figures illustrates vehicle and pedestrian movements, street width, various setbacks and building heights in different sections. For instants in the (figure 25), the building heights in section C is much higher in section D. also the sections A and B show a wider street width with more street lane than the sections C and D.

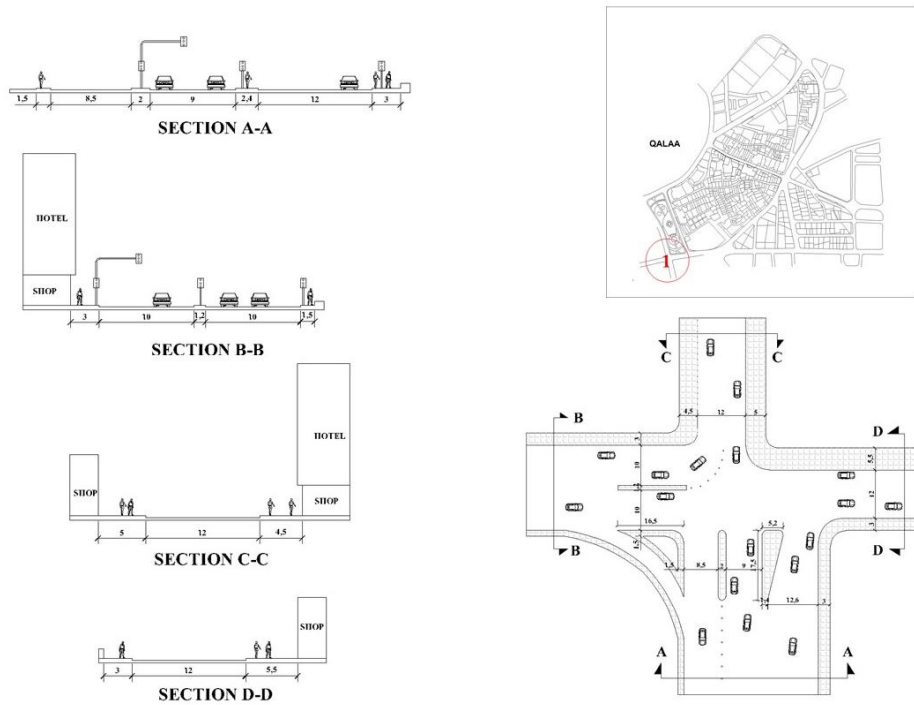


Figure 25: Street intersection details map1 of Khanaqa neighborhood.

The second intersection in (figure 26) illustrates a star shape in the top view. The streets of the intersection show approximately the same building heights in sections A, B, C, and D, but there is a wide difference when they are compared to section E. Section C and D show the same street width, while sections A and B illustrate different setback, pavement and street width.

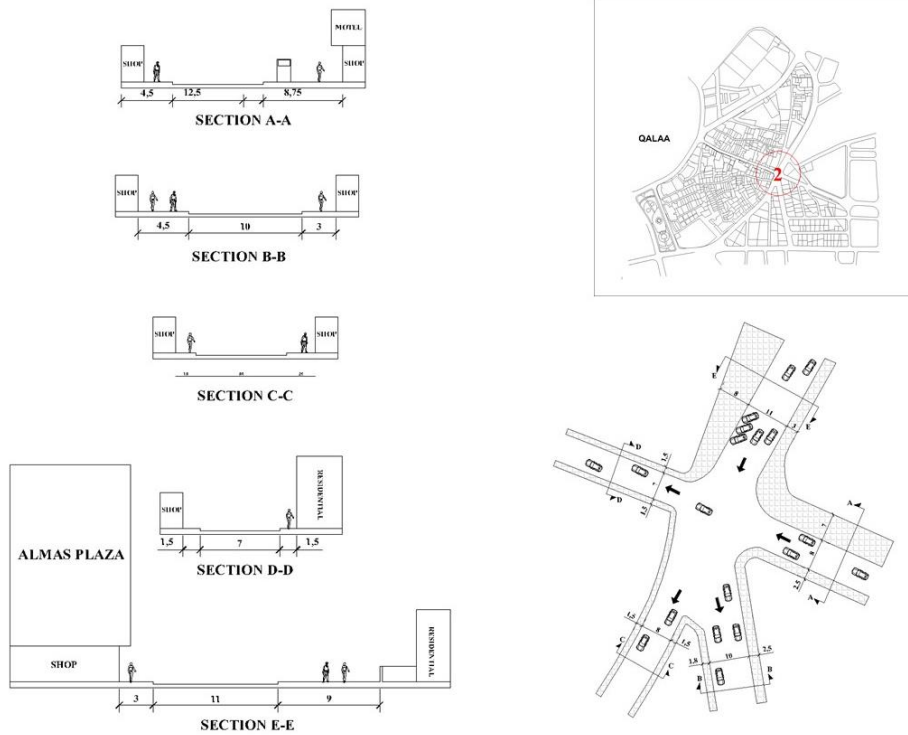


Figure 26: Street intersection details map2 of Khanaqa neighborhood.

4.3 Traffic in Khanaqa Neighborhood

During the observation works, two different intersections were chosen in the (figure 27) to track the crowding level of streets by vehicles and two points to track the crowding level of streets by pedestrians in the (figure 28) at various times of the day.

The first intersection in (figure 27) illustrates a maximum number of vehicles in street B about 2052 vehicles, and the minimum number of 264 vehicles in street A from 8:30 am to 9:30 am. While the number of vehicles changes in the same intersection with the change in tracking time, it shows a maximum number of vehicles about 765 vehicles in street D and a minimum number of about 167 vehicles in street E from 4:30 pm to 5:30 pm. The second intersection in (figure 27), displays a maximum number of vehicles about 729 cars in street D and the minimum number of vehicles about 143 cars. In street E from 8:30 am to 9:30 am and it shows a little change in the number of vehicles with the change in tracking time from 4:30 pm to 5:30 pm, it displays the maximum number of vehicles in street D about 765 cars and the minimum number of vehicles in street E about 167 cars.

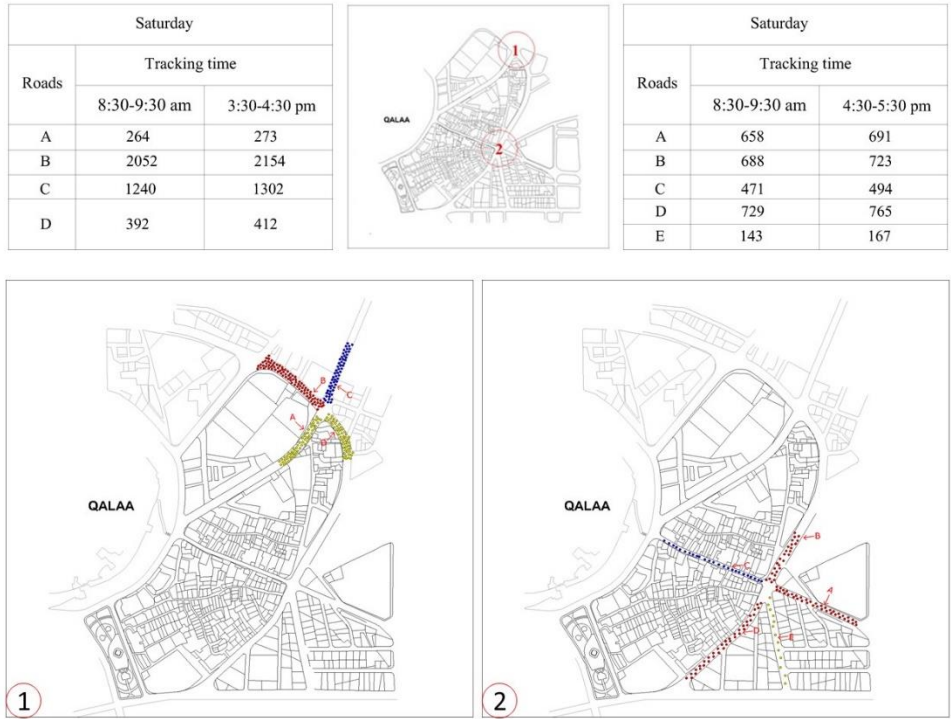


Figure 27: Car crowded joints map of Khanaqa neighborhood.

The first point in the (figure 28) shows the maximum number of pedestrians in the observed street, at the first point is 2368 people passing by the street from 10:00 am to 11:00am and the number changed to 2604 people from 4:30 pm to 5:30 pm. The second point of (figure 28) shows the maximum number of pedestrians about 1708 in street A and the minimum number of pedestrians about 312 in street B from 8:30 am to 9:30 am, while from 3:30 pm to 4:30 pm the numbers changed to 1879 person in the street A and 344 persons in street B.



Figure 28: Pedestrian crowded joints map of Khanaqa neighborhood.

4.4 Urban studies of Khanaqa Neighborhood

4.4.1 Urban structure

The study portrays land use in the area that is mostly consumed for street and commercial uses with percentages of about 26.1% street and 22.6% commercial. Also, 13.5% percentage of the land is preserved by the government. The buildings in the neighborhood are mostly found in a poor condition which indicates the lack of concern for maintenance. As for materials, the buildings mostly used concrete blocks without concern for the historical character and values of the neighborhood.

4.4.2 Visual composition

The shape of the neighborhood: Khanaqa neighborhood has an irregular shape, defined by streets, buildings, and social spaces. There are many street intersections inside and surrounding the neighborhood. The organic pattern and narrow and human-scaled streets represent the historical character of the place. It conforms with, Atash's portrayed pattern as the following explanation: "The motif of the urban context of historic towns in the Gulf Region and North of Africa has evolved dramatically throughout the ages." The area's historical Islamic civilizations of buildings and roads possessed an organic fabric in urban areas that reflected a significant level in cultural identity and cohesiveness."(Atash, 1993). The neighborhood has various street widths, the residential street width is between 3-9 meters, which helps in creating full or partial shades on the streets that it supports to be protected from direct sun rays.

- Space pattern: the area has an organic and dynamic context through its old building arrangement and random streets that support walking and many other activities which connect people to the area.
- Furniture elements: it's difficult to find sitting and waiting for places. At the night the streets turn into a dark and scary places that become hard to visit. There are no greenery elements such as trees and shrubs, only a few trees can be seen planted in the Baghi Shar Park located on the edge of the neighborhood.

4.4.3 Strengths and Weaknesses

Khanaqa neighborhood as an old area has some weak and strong points according to the observations that did along with the study.

- *The weak points include;* Low quality of facades and used materials as shown in the 1st image starting from top-left of (figure 29) that each unit of building used different elevation elements and signage boards in various sizes and types, that all this effect on the visual quality in the area. As appears in the 2nd & 3rd image quite narrow dead-end streets in residential alleys and dead spaces in the area help in the accumulation of waste that comes to be viewed as visual and air pollution in the place. Another weak point that is noticed in the area is physically and structurally bad conditioned buildings as represented in the 4th image and unused buildings in the 5th image left in the area without maintenance or renovating and reusing.



Figure 29: Shows the weak points of Khanaqa neighborhood.

- *The strength points include;* the Erbil citadel which appears in the (image 1) starting from top-left of (figure 30) known as the main and old structure of the city that is situated in the center of the city, as well as very close to the Khanaqa neighborhood. Besides its heritage and cultural values, it's an important landmark for surrounding areas. The (image 2) represents Sheikh Mustafa Mosque, it's an old masjid but still, it serves the visitors and in recent days it receives maintenance. The Almas and Istanbul hotels shown in (Figure 3 and 6), the hotels are serving the guests until now. The only difference between them is that structurally Istanbul hotel is older than the Almas hotel, but what is noticed is that both

physically not appealing to the eyes aesthetically and they are far from representing the historical and cultural values of the neighborhood. Khanaqa neighborhood owns many historical buildings that give value to the area especially if they are treated well and receive maintenance and renovation works. The only green space in the area is Bakhi Shar Park which is situated in the South part of the neighborhood and hosts people especially the elders during the daytime. In front of Bakhi Shar Park the municipality designed open space with foundations to attract more people at the same time to be a place for sitting, resting, gathering, and meetings. There is also a place for furniture stores and home electronics stores called Bazari Surchian located in the North part of the neighborhood, and as noticed it's quite active place for commercial purposes.



Figure 30: Shows the strength points of Khanaqa neighborhood.

Weaknesses	Strengths
Low quality of facades and finishing materials.	The location of the site as it is near to Erbil's ancient citadel and main Bazar.
Narrow dead-end spaces which became waste containers.	Heritage and cultural values of the site.
Visually and structurally bad conditioned buildings.	The site contains the main open plaza of the city (Bakhi Shar Park).
Abandoned (unused) buildings.	

Figure 31: Weaknesses and Strengths of Khanaqa neighborhood.

4.4.4 Problems of Khanaqa Neighborhood

Like other research, also, this study was done because there is a problem that attracts attention and needs to be observed and studied, the problem is that there is no such wide documentation about the situation and problems in the Khanaqa neighborhood that can be used for future regeneration works. The area until now didn't receive any maintenance or renovation works besides its obvious problems such as crowding problems because it's inside the CBD. Traffic problems because of the development of the city, Pollution, and noise due to high level of traffic. Visual and air Pollution due to accumulation of waists inside dead-end streets and dead spaces, also as noticed till now there is no one to clean these waists or preventing from accumulating them without cleaning. There is no consideration for pedestrians, the streets are mixed between vehicles and pedestrians and it carries accident risks. Lack of car parking, most of the cars are parked on the sidewalks or streets which prevents pedestrians from walking or passing the area. Lake of social spaces, green areas, and streetscapes, the only green space is Bakhi Shar Park and its fountains as social space, the negligence of streetscape is continuing till recent days. During the observations noticed that there

is a weak or it can be said there are no utility services, also the exhausted situation of the neighborhood is another problem, the neighborhood looks so tired physically and structurally.

5. CONCLUSION

The aim of the study is to show the current condition of the site, side by side with its historical value by having data collected from the site observation process to have a reference for future urban regeneration ideas.

Every old and ancient city that undergo many civilizations has parts of neglected land or urban neighborhoods that are damaged and decayed. Erbil city is among Iraq's historic cities, with numerous old urban zones. The city's appearance, its livability, also productivity are all affected by these neglected areas, which seem to be the consequence of transformations in urban efficiency and rising population.

The regeneration works display a significant role in rehabilitating, renovating, and reviving the old yet neglected urban areas like the Khanaqa neighborhood. It could draw attention to the connection of physical-economical-social components of urban issues in the region, as Peter Robert said: "Comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change".

Khanaqa neighborhood is one of the oldest bad-conditioned areas in Erbil city, the area didn't receive any maintenance or renovation works besides its obvious problems that are explained and documented in the previous sections of the study. Accordingly documenting this old neighborhood and others of Erbil city could play a staminal role in helping future regeneration works. The study tried to collect and present the existed data and information gained during observation of the neighborhood, in this case, the research is considered a ready document for future regeneration works in the area because it helps in making the steps easier to start urban regeneration in the area. Also, the research works as the main source for the next studies and topics. Khanaqa neighborhood has many unsolved problems and neglected issues, the important thing is that most of these problems, issues, weaknesses, and strengths are documented. If we couldn't document these data, the next steps for explaining the strategies and ideas of urban regeneration for the Khanaqa district and its potency to accept these regeneration ideas in the future paper will be easier to discuss.

During the observation of the Khanaqa neighborhood what noticed and thought is the area needs urgent support to renovate the area to keep the historical and cultural values of the place and at the same time to supply a clean environment, high-quality social interaction, and commercial display to Khanaqa neighborhood. It can be done through some steps, the first step is that collecting and documenting data on the area. That was the reason for starting this study by documenting the area. So the next steps in future studies can focus on some opinions by authors, including:

1. Transforming the neighborhood from its exhausting situation to a strong and clean place that makes people work there easily and eagerly, also the visitors could be attracted by the environment there.
2. Taking advantage of the commercial and cultural value of the area.
3. Taking advantage of unused buildings and vacant lands in the area.

4. Introducing new commercial and social activities that encourage the area to be more attracted by people during daytime and night times.
5. Installation of streetscape and furniture especially lighting bulbs on the streets to make people walk easily, and safely and prevent them from crime and abuse risks.
6. Maintaining and renovating hotels in the area because with regenerating the area the tourists can be attracted easily in this case, they want to stay close to the area.

REFERENCES

- Agnes Schuurmans, S. D. (2018). Buildings in Urban Regeneration. In A. A. Almssad, Sustainable Cities (p. 182). IntechOpen.
- Al-handasah, D. (2007, February 12). Erbil Master Plan. Retrieved from Dar Al-Handasah web site: <https://www.dar.com/work/project/erbil-master-plan>
- Almukhtar, A. (2016). Transformation of Place-Identity; A Case of Heritage and Conflict in Iraq. 17th IPHS Conference (pp. 403-416). Delft: TU Delft Open Publishing.
- Atash, F.: Fragmentation of the Urban Fabric. Experience of the Middle Eastern and North African Cities. *Cities: The International Journal of Urban Policy and Planning* 10 (1993) 4. 313-325. Beer et al. 2003
- Ayeb, M. (2016, 12 26). Building Orientation for Hot and Dry Climate. Retrieved from linked in: <https://www.linkedin.com/pulse/building-orientation-hot-dry-climate-majdi-ayeb>
- Carter, E., Donald, J., & Squires, J. (Eds.) (1993). *Space and place: theories of identity and location*. Lawrence & Wishart.
- Castells M. 1997. *The power of identity*. Malden: Blackwell.
- Chris Couch, C. F. (2003). *Urban Regeneration in Europe*. Blackwell Publishing.
- Couch, C. (2003). *Urban Regeneration in Liverpool*. In C. F. Chris Couch, *Urban Regeneration in Europe* (pp. 34-55). Oxford: Wiley-Blackwell.
- Council, L. C. (2017, September 1). TENSTREETS. Retrieved from Ten Streets Liverpool: <https://www.tenstreetsliverpool.co.uk/>
- Council, L. C. (2022, 05 22). Regenerating Liverpool. Retrieved from Liverpool City Council: <https://liverpool.gov.uk/business/land-and-property/regenerating-liverpool/>
- KRG. (2009). *Statistics Year Book*. Erbil: Ministry of planning. Regional statistical office.
- Manicipality, E. (1985). *Hawler*. (S. Q. Tahsin Chicho, Ed.) Erbil: Minister of culture and youth in Erbil.
- McCarthy J, 2007, *Partnership, Collaborative Planning and Urban Regeneration*, London. Aldershot: Ashgate. <https://doi.org/10.4324/9781315599588>

Morris, A. E. J. (1994). *History of Urban Form before the Industrial Revolution*. Wiley & Sons, New York.

NatraTex. (2022, 5 28). What is urban regeneration? Retrieved from NatraTex:

<https://www.natratex.co.uk/knowledgehub/what-is-urban-regeneration/#:~:text=As%20noted%20above%2C%20there%20are,and%20work%20in%20the%20area.>

Ranja J. (2020). Historic Erbil neighborhoods stand derelict following broken restoration promises. Rudaw TV 08-10-2020. <https://www.rudaw.net/english/culture/08102020>

Rebaz Kh., Kornelia K. (2018). Urban Form and Sustainability in Historic Cities: A case study of two neighbourhoods in Erbil City, Iraq. *Epites - Epiteszettudomány* 47(2):1-27. <https://doi.org/10.1556/096.2018.014>

Peter Roberts, (2017). *Urban Regeneration, Chapter 2: The Evolution, Definition and Purpose of Urban Regeneration*. SAGE Publications Ltd. <https://dx.doi.org/10.4135/9781473921788.n2>

Tony Lombardo. (2017). Urban regeneration - it's still about creating places where people want to be. *Lendlease, Urban Regeneration*.

<https://www.lendlease.com/articles/2017/04/10/00/51/20170410-urban-regeneration-tony-lombardo/>

Weatherspark. (2022, 5 28). Average Weather in Erbil-Iraq Year Round. Retrieved from weatherspark: <https://weatherspark.com/y/103233/Average-Weather-in-Erbil-Iraq-Year-Round>