

# Table of Contents:

Introduction:	2
Case study:	2
Methodology:	3
Data collection plan:	3
Survey and discussion:	4
Demographic data:	4
Land Use:	5
Building status:	8
Heights of the buildings:	11
Infrastructure:	13
Movements in the Gali area:	15
Social activities:	17
Architecture materials	19
Historical background:	20
Findings:	21
Conclusion:	23
Suggestions:	24

#### **Introduction:**

Gali neighborhood of Duhok city is an old neighborhood with many different religions lives in it but the majority of them are Muslims. At Gali neighborhood there are some services that people need it with many historical buildings like the Xabat school which is an old school at Gali neighborhood until now it is big and old school with the multi-shift system, also there is a hospital at this neighborhood which help the people neighborhood for their health, and the mosque which is at Gali, it's very old and big that Muslims people praying inside of it.

### Case study:

Gali neighborhood is located in Duhok city of Duhok governorate of the Kurdistan Region of Iraq (KRI). It's an old neighborhood near to Duhok city center that built in the 1950s, consist of many old small houses and narrow street, is located near to the center of Duhok city it starts from the bazaar until the Duhok Dum. The majority of the people at the first when they settled at Gali because it is near the center and for the goods and services. Figure 1, shows a picture of Gali neighborhood



Figure 1, Gali neighborhood

## **Methodology:**

This research used qualitative and quantitative data to describe the Gali neighborhood condition. Overall research had observation, interviews, sketching maps, photos, and more.

# Data collection plan:

The plan for collecting data is shown in table 1.

Set of data	Data required	From where	How	By Who Table 1
Demography	Gender, Family size, Age group	Site visit, online data	Interviews, Statistical data	Dilan
Historical background	Graphs, Photos, Old history, Old statistics, Recent history,	Site visit	Interviews, Statistical data	Brin, Hayvgir, and Dilan
Land use map	Photos, Primary data, Land distribution (%)	Site visit	Observation, Interviews, photos, Mapping	Roj, Muhammad Mahdi
Heights	Comparison between old and new buildings to show the height	Site visit	Photos, Interviews, Observation, Mapping	Brin, Dilan
Status of building	The topography of the building,	Site visit	Photos, Maps, Observation, Interviews, Mapping	Roj, Muhmmad Mahdi
Movement	Number of cars per time, Vehicles and pedestrian densities	Site visit	Interviews, Observation, Photos, Mapping	Hayvgir, Roj
Details	Materials structure style, Building design	Site visit	Interviews, Observation, Mapping Photos	Roj, Muhmmad Mahdi
Social activities	People activities of different ages, Religion and culture activities, Positive and negative of it	Site visit	Interviews, Observation, Photos, Mapping	Dilan, Brin

Problems	For all mentioned above	Site visit	Observation, Interviews, Analyzing data	All members

## Survey and discussion:

After studying Gali neighborhood a combination of factors this research finds out which explained bellow.

## Demographic data:

Gali neighborhood is the same as other parts of Duhok governorate. Most of the people who live in Gali are Kurds and Muslims with fewer Arabs, Armans, and others. There are a lot of kids and teens in Gali same as other parts of Duhok. Figure 1, shows the population pyramid of Duhok governorate. From the bellow of the population pyramid, the age groups are decreasing as the number of kids between age 0-4 is a bigger age group among the overall population. Then, the age group of 5-9 comes next then till it reaches to age group 65+.

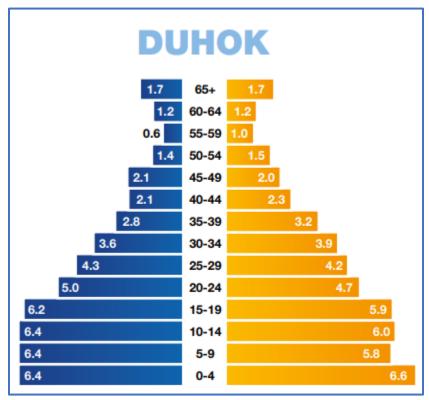


Figure 1, Population pyramid of Duhok governorate

### **Land Use:**



The Gali neighborhood is not in a good position. It has several issues. Such as:

- There're residential areas that are not in straight rood. These roads who have bad elevation make difficulties for people especially older people to reach their houses and distention. Some roads are small and barley cars can pass through it. This makes more possibility of having accidents especially when there're kids around during the day time.
- There're some isolated houses and four wrecked houses as well. The houses that wrecked were due to soil of the land that was not good for residential purposes.

Some other facts related to this neighborhood:

• There're commercial areas in Gali, such as stores and barbers.

- There's a mixed-use of land in different areas of Gali neighborhood. For example, a building with a commercial first floor and residential second floor. These types of mixed-use land are common in this neighborhood and Duhok city as well (Figure 2).
- There are places for firefighting, schools, green area, and one mosque. Also, one school was isolated and left for IDPs who're currently living in it (Figure 3).
- There are many illegal houses on the north side of the district, near the natural garden. Moreover, there are 2 or 3 streets with a big number of houses that are illegal (figure 4&5).



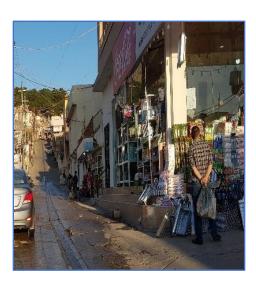


Figure 2, Mixed use land (commercial and residential)





Figure 3, Houses of Gali neighborhood



Figure 4, Xabat school at Gali



Figure 5, Mixed use of land (commercial and residential)

## **Building status:**



Gali has many very old buildings, old and new buildings. But the majority were old houses, some of those building materials were very old and has some kind of historical value such as Media school.

All the houses which were close to the small forest(woodlots) on the north side were very old and old, but the majority of the houses near the high road were in new condition.

The main problem here is that some of their very old buildings did not change anything it stayed like how it was before. Those old houses are in bad condition and not very livable.

It is pretty challenging to stay there because not everyone can change and repair their houses. Besides the financial condition. The soil type is not very trusty to rebuild a new house there (figure 5 & 7). Then the elevation of the land there (figure 6). It is very steep from the small forest until it

reaches the man's road down. But near the mosque and main roads, some of the houses were rebuild and repaired recently and they were in a very good condition (figure 8).



Figure 6, An old house.



Figure 7, The steepness of the land.



Figure 8, Bad soil type for construction( it caused erosion).



Figure 9, New repaired house above the mosque.

# Heights of the buildings:

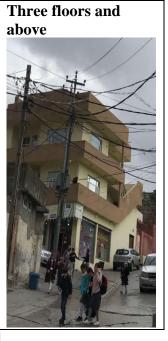


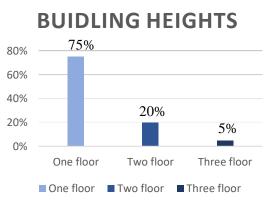


Maps by Handwriting





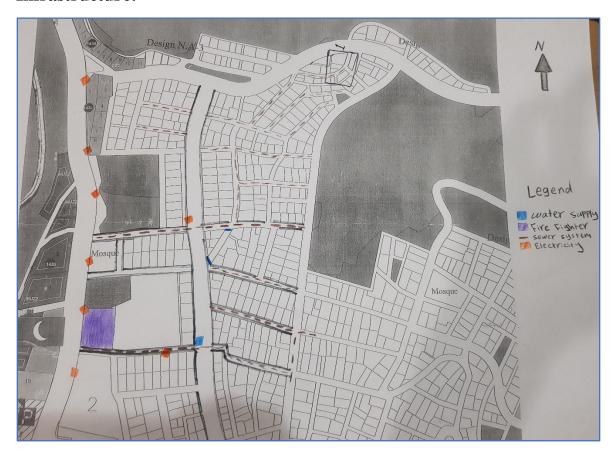




The heights of the building is the distance from bottom to the up and it measured depending on how many floor is the building consisting of ,Gali has many residential and mixed use building ,depending on the map and the data that we collected the majority of the households and the buildings at Gali are old and it consist of one floor, two floor, three floor and for floor but the majority of them are old and consisting of one floor as its shown up in the images ,most of the buildings and houses at Gali are one floor also it's like compact district of the city that has high percentage of population and less services spatially there houses are very old some of them are repaired and built again but still the quality of their house are not good enough ,there house built on 1950 and until know ,the heights of their house is between 7 to 10 meters ,the design of the houses and the building are very old spatially the part near the Kelya Sheda that has less services ,as the planner we should plan to build their houses again and create a new map for this district with creating high rise building cause this is important near the city center we can see all the city

.

#### **Infrastructure:**



As it's mentioned in the previous paragraphs, Gali neighborhoods are old. There are many problems related to the infrastructure in that area such as:

- The sewage system is on the ground and because of the land slope there, sometimes it gets very loud and messy (Figure 10).
- The electricity small stations are not that height above the ground. It's reachable even for children (Figure 11).
- As it's showed in the map in the rectangular under number 1, there is a big overland sewage system. It's a collective point of more than 3 or 4 streets sewage system, because of that it's always stormy and there are a small number of bridges over it (figure 12).

The main challenge for the people there is movement. Because of the sewage system. especially in winter and stormy weather. Not to mention the danger of electricity among houses.



Figure 10, Street of Gali neighborhood



Figure 11, Electricity power



Figure 12, Small alleys

#### Movements in the Gali area:



Gali area is a very old neighborhood in Duhok city. The roads have been built in a narrow way in a steep area. The main road constructed in a flat space then the streets get steeper through the neighborhood. The area has not been developed since its first construction so it consists of a lot of problems:

- Lack of parking areas with ignoring the high number of cars parking randomly next to the houses or on the main road.
- There are some damaged parts on the streets that are not fixed yet(figure 12).
- No sidewalks inside the neighborhood. People are walking randomly in the area, and also no crossing points
- There is no enough safety for the children next to the school because they walk with cars in the same places (figure 13).
- Because of the steep area, the streets could be more dangerous on a rainy or snowy day.

As the land of the area is limited many houses had constructed on the roads and changed the shape of the movement during the time, the same roadway could be wide in some parts and narrow in others because of it (figure 14). There's no public transportation because of that approximately all the houses use private cars about one car per house. There were no parking places inside the houses for most of the cars.

The car movement was in both directions on all the roads. There was approximately 1200 car per hour moving on the main road at 11 am-12 pm which is not the peak hour. On secondary roads, there were about 12-24 cars per hour



Figure 13, A damaged street.



Figure 14: Main road beside the elementary school.



Figure 15: A street in Gali neighborhood.

#### **Social activities:**

It can be said that Gali neighborhood is like most other areas in Duhok cities. The activities are pretty diverse. Based on mixed-use lands, some people work as sellers in markets. Also based on our observation we captured 2 or 3 barbers (Figure 18). Because Gali neighborhood is located near Duhok's main Bazar, some people work there. There is a primary school on the main road (Figure 19).

#### **Children activities:**

Gali neighborhood, most people in this neighborhood are poor. So, a lot of kids tend to spend their time outside of their houses and play different games on the streets. Boys tend to play soccer on the streets and girls tend to play with each other's as well. Sometimes cars had accidents in this neighborhood because too many kids are on the streets. Sometimes kids play in a garden beside the mosque to spend their free time (Figure 20).



Figure 16, Kids on street

#### Teens and adults' activities:

Young boys and adults of Gali tend to spend their time in Cafes especially near Duhok valley because in the valley there are a lot of cafes. While girls spend their time mostly at their houses. Also, adults and old people pick a house like the neighborhood representative house and come together there and spend their time together. A lot of people in Gali neighborhood have their agricultural land, so adults and young boys work there together.

#### **Religious activities:**

Most people who live in Gali neighborhood are Muslims. There could be some people of other religions, but very few and rarely you can see them. There're no such issues between different religions in the Gali neighborhood. Also, because most of the people are Muslims so there's a Mosque in Gali neighborhood built for Muslims. Check Figure 17.

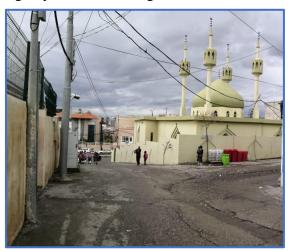


Figure 17, Mosque of Gali



Figure 18, Mixed-use of land.



Figure 19, Primary school.



Figure 20, Garden of Gali neighborhood

#### **Architecture materials:**

The Architecture materials in the Gali neighborhood are mostly old and ancient which have been built a long time ago.

#### Factors related to architecture material:

- The elevation of buildings materials is not straight land and it goes up and down from the street to a street. This makes difficulties for buildings as they are not in straight land.Also, as mentioned before that some buildings collapsed because of un proper elevation place and soil type. Check Figure 21.
- The style of architecture of most buildings are old and some buildings may need to be rebuild. Also, colors of what has been built are old as well and it sketched cause most of these buildings have been painted a long time ago. Some buildings are newly designed but they're few and rarely can be found. Check Figures 21 and 22.



Figure 21, Elevation of land and building architecture

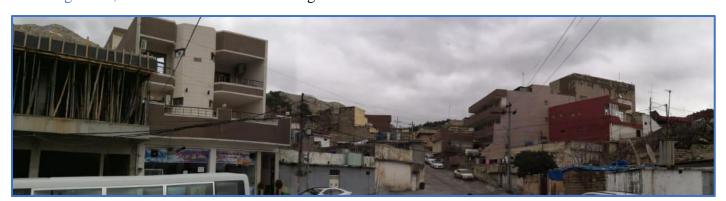


Figure 22, Building architecture

## **Historical background:**

Based on the field that we had in Gali neighborhood, there are 3 valuable places there that define the surrounded territory. Those places can be defined as nodes based on Kevin Lynch's elements of the city. The three valuable nodes are:

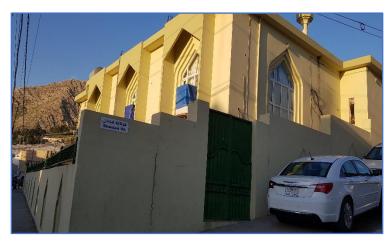
• Khaabat elementary school.



Media school (old).



• The Mosque.



Below are some old Photos back 1970s and 1980s of Gali neighborhood.



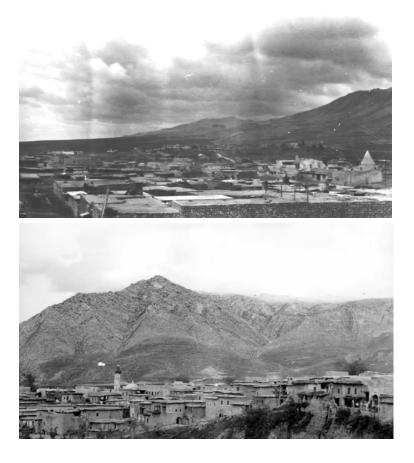


Figure 23,24, and 25: Some old photos of Gali neighborhood.

## **Findings:**

- Lack of public parks and green area
- Lack of open areas for kids to play with each other.
- Lack of special places for adults to spend their time together
- A filled neighborhood without empty places for children
- Lack of living quality and lack of services.
- Many people fewer schools for education
- Having pollution that became a reason to have diseases.
- Lack of streets and people have many problems because of their house they need support from the government.
- Bad roads size and elevation especially for older people, old houses, and cars.
- The old buildings are in bad condition and tend to the same as they were built in the first place. Also, soil type is not very trusty to rebuild on it.
- The majority of houses of Gali neighborhood are not in good condition



Figure 23, An example of those houses or families that need government support

Figure 23, is an example of those families who need support. They were complaining that no one is therefor them and the gover n ment told them they have to empty their houses because they going to destroy the houses and instead of that they will make street wider It can be said that, those places are not in good condition. The material for the construction of the building is old. There is no modern look. But on the other hand, because of the value that those places have, the government does not destroy them.

#### **Conclusion:**

For summarizing the Gali neighborhood conditions some points explained below:

- The people who live in Gali neighborhood are mostly Kurds and Muslims with few citizens of Arameans, Yezidis, and others. The age groups of kids and tends are bigger than age groups of adults and old people.
- Land use of Gali has many issues such as land elevation, illegal houses, isolated, and recked houses due to soil type. There are commercial and residential and mixed-use of land in the area. There're some other places like schools, firefighting, green area, and one Mosque.
- Buildings of Gali are very old, old, and few are new. However, the majority of houses are old and a lot of them are in bad condition. Also, soil type in some areas is not good for construction besides a lot of people's poor financial conditions.
- In Gali, there are building with one floor, two-floor, and third floor but the majority of buildings are with one floor and few of them are with two or three floors.
- The infrastructure of Gali is old and has some problems such as the sewerage system on the ground with bad conditions and electricity stations close to the ground that make challenges for people movement.
- Some roads in Gali are narrow ways in steep area and some other roads build in flat land then it gets stepper through the neighborhood. Also, some streets are damaged, there are no sidewalks and less safety for children.
- There are diverse activities in Gali. A lot of kids tend to spend their time playing different games on the street. Teens and adults tend to spend their time in Cafes, on friend houses, and girls tend to spend their time at home.
- Building materials are not on straight land, it goes up and down from street to street, and buildings are mostly old and with old painting.

### **Suggestions:**

This research recommends a combination of suggestions based on focus on social activities:

- A specific playground for kids should be made or chosen to keep kids safe from car
  accidents as there are a lot of cars moving around this neighborhood and kids' age group
  exceeds the overall neighborhood population.
- For teens and adults, an entertainment or open area can increase their satisfaction better in their neighborhood
- The roads of Gali should get improved to avoid accidents.
- Some buildings should get repaired because they're very old and repairing people's houses as well to make it more livable and avoid collapsing problems.
- The sewerage system should get improved as they're in bad condition and electricity stations should be in higher elevation and not close to the ground for people's safety.
- A car parking should be built-in neighborhood to avoid random parking in the area.
- The three important nodes of the neighborhood (Media school, Mosque, Khabat elementary school) should be preserved and improved because they make the neighborhood special.
- The quality of air should be well remembered and be preserved