

The Social Impact of Gentrification in the Jabal Al-Weibdeh Neighborhood in Jordan

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Abstract

Gentrification is a phenomenon that reflects the image of many types of transformations of neighborhoods. Recently, it has been observed that gentrification is happening in Jabal Al-Waibdeh, Jordan, Amman. This study examines how gentrification has affected the social interactions among the communities in Jabal Al-Waibdeh. Although extensive research has been carried out on the impacts of gentrification, there has been little research that examines the effect of gentrification on social fabric or community life. The aim of this paper is to explore the links between gentrification in Jabal Al-Waibdeh and socializing among the neighbors.

The paper employs mixed research methods: questionnaires, interviews administered in the community and observations from the site administered in the community.

The study shows that there is a relationship between gentrification and social interaction. Indeed, it has a negative impact on communication among the residents.

Keywords: Gentrification, Social interaction, Neighborhood, Displacement, Social mixing, Jabal Al-Weibdeh, High-income community.

Introduction

The natural urban growth of neighborhoods is in continuous change, especially when most of the occupants are renters. The forms of neighborhoods are also modified through the addition of infrastructure and construction or demolition of buildings. Although the changes usually happen slowly, there are some forces such as a flow of immigrants, which create socio-economic issues that may affect this change. Therefore, new concepts are needed to comprehend this phenomenon.

A neighborhood comprises two components; the first is the physical component such as buildings, which serve the needs of communities. They are not distributed randomly but by land use. The second one is the social component, which arises from the community as they live and interact within it.

Any change in the interactions between these two components such as adding new residents will make an imbalance because it may lead to competitions for zones that can force a group of people to move. Striking a new balance may establish among hegemonic group that replaces old groups in the place to mitigate adverse effects of competitions (Park, 1936; Sampson, 2011; Zuk et al., 2015).

Regardless of the type of change, it will always be followed by two phenomena known as gentrification and urban displacement (Park, 1936; Sampson, 2011). Many studies have addressed this issue and have discussed how changes can affect a neighborhood and how the movement of the communities can affect the surrounding areas.

The first official use of the term gentrification was when high income “gentry” occupied neighborhoods in London of the lower income (Glass, 1964). In general, the term gentrification describes a negative position. As mentioned before, it has a serious impact on the lifestyle of a neighborhood community and their social behavior. On the other hand, it affects the neighborhood itself by increasing the rents and property values, while creating a change in its character (Less, Slater, & Wyly, 2008; Clay, 1979; Zuk et al., 2015; Zanotti, 2018).

Jabal Al-Weibdeh in Amman, Jordan has experienced gentrification and displacement. Jabal Al-Weibdeh is attractive for people who come from outside due to the quiet nature of the neighborhood and many agencies near there. Over time, it has become a socially mixed neighborhood. It shows many characteristics at different levels: demographic, real estate markets, land use, culture, and character. Although Jabal Al-Weibdeh has been affected by gentrification, there are no studies that support this observation.

The aim of this research is to explore gentrification effect as a tool for stimulating local transitions in Jabal Al-Weibdeh. It intends to show the social and physical impact gentrification has had on this neighborhood, focusing on how the social fabric and the lifestyle of the community has been affected. It physically explores the effect on the actual use of the buildings and the land values.

On the other hand, it intends to test if there is a relationship between gentrification and social interaction between the new local communities. This research has a main hypothesis which assumes there is a relationship between gentrification and social interaction between communities. It is indeed hypothesized that there is a relationship of statistical inductive measurable significance between the changes that took place in social interaction.

Theoretical background

Definition of Gentrification

Urban redevelopment involves those actions of the government or the residents and other to physically develop some areas (Gotham, 2001, Yeom, Minkyu & Mikelbank, 2019)

The first official use of the term gentrification was when high income “gentry” occupied neighborhoods in London of the lower income (Glass, 1964). In general, the term gentrification describes a negative position which affects already developed areas by individuals and the main force for this action is low value of sites (Yeom, Minkyu & Mikelbank, 2019). As mentioned before, it has a serious impact on the lifestyle of the neighborhood community and their social behavior. On the other hand, it affects the neighborhood itself by increasing the rents and property values, while creating a change in its character (Less, Slater, & Wyly, 2008; Clay, 1979; Zuk et al., 2015).

Usually, displacement arises as the main consequence of gentrification. Therefore, existing locals, whether renters or owners, cannot bear the cost of living in the neighborhood and the renters move to other places with lower costs while the owners attempt to exploit their properties (Freeman, 2005; Vandergrift, 2006; Davidson, 2010). Sometimes the governments may adopt strategies to create gentrification in some districts using the physical components by adding several elements, such as facilities, to control how and where to increase the land values to encourage different people to live together. Another strategy is to stimulate urban rivalry between neighbors. These strategies stimulate consumer spending by changes in residential demographics (Zuk et al., 2015; Florida, 2002; Glaeser & Andrei, 2003).

Many researchers have also discussed that gentrification is a process resulting from racial capitalism. Thus, it is not only the process of changing in the neighborhood from low-income to middle-income residents, but it is also associated with increasing investments driven by the profit motive from real estate firms, municipal authorities, financial institutions, enterprises, and private purchasers. This is linked to the interests of stakeholders. The neighborhood is rated according to the demographics of the residents of the neighborhood. Therefore, there is an inequality of opportunities between neighborhoods located around the mega projects' investments (Dantzler 2021; Rucks-Ahidiana, 2021; Dantzler and Reynolds 2020). In the case of Jabal Al-Weibdeh the Al Abdali project, which is a mega project including

residential complexes, offices, hotels, serviced apartments, shops, and leisure centers that became the hub of business and housing in the Jordanian capital. It has become a smart city center that brings together the media and communication infrastructure, ensuring that the most advanced technologies are delivered to every home, office, and store. Thus, most foreigners have come to work there because it has attracted foreign investment. It is also located 1.5 kilometers from Jabal Al-Weibdeh and was the driving tool for the gentrification in it and many processes of valuation have encouraged it to be a valued neighborhood.

Some theorists have found that the amenities of the cities that used these strategies have grown faster and see them as positive improvements (Chapple & Jacobus, 2009). On the other hand, some argue that these strategies are incorrect because they create a social mix and inability of interaction between different communities. They suggest a rethinking about the associations between gentrification and displacement (Gracia et al., 1995; Guest et al., 2006; Carpiano, 2006; Davidson, 2010; Baum et al., 2010).

The Physical Change of the Neighborhood

Usually, gentrification effect is not confined just to the social aspect, but it also has evidence on the physical aspects of a neighborhood. It consists of changes in the numbers of housing available for sale and changes of the economy by change of land and housing market (Smith, 1987). It is also affected by increasing socio-economic status, as well as commercial and retail character (Kennedy & Leonard, 2001).

Kennedy & Leonard (2001) has discussed the indications of gentrification through several points; first, as it increases the rate of renters, and the second is the accessibility to job centers. The third one is the architectural value at high level. The advanced stage of gentrification becomes visible through many indications: the down payment ratios are increased. Attraction of families and individuals who have an interest in urban facilities and people associated with culture such as artists, painters, and young professionals, as well as the flow of amenities that served another income level such as galleries, valet parking, new coffees locations are increased (Zanotti, 2018; Bhavsar, Kumar & Richman, 2020).

The private investment associated with gentrification has evolved in centers of Europe, North America and Japan in three stages; in the 1960s, it was on a very small scale and had some risks. However, in the 1980s, it was stronger than before but was still with risks. In the 1990s, private investment received spread deployment as well as it became a key strategy for development (Smith, 2002).

Many studies have focused on the physical indicators associated with gentrification in neighborhoods according to what was mentioned previously. These include those that make a change in increasing socio-economic status, changing in housing stock, changing in lands of the neighborhood, and increasing private investment. However, Jabal Al-Weibdeh has all this evidence but there is no study to confirm it.

The social Aspects of the Neighborhood

The other side of the impact of gentrification represents changing the existing patterns of the socio-spatial characteristics. This is shown when changing the class of locals of the neighborhood to another category and their composition, which result from many changes which are mentioned before, for instance, rising rents (Lees et al. 2008; Gent & Hochstenbach, 2019; Zanotti, 2018).

Especially in centrally located neighborhoods, gentrification creates a new social mix by displacement for low-income households and encourages new classes of households to replace them (Gent & Hochstenbach, 2019; Bhavsar, Kumar & Richman, 2020).

There is a large volume of published studies describing the impact of gentrification on social segregation by displacement of low-income communities, socio-economic effects, and how it changes social character (Lees et al. 2008; Gent & Hochstenbach, 2019). However, there is a lack of resources on how gentrification affects social interaction between the new households.

Social interaction, which a person may acquire through participating in a certain social group, has been referred to as social sustainability (Shcherbyna & Nikolaiev, 2023). It relies on the groups you belong to, the individuals you know, and the level of interaction you have with that group. In other words, it has to do with the usefulness of social networks, building connections with like-minded individuals and bridging cultural differences through reciprocity norms (Adam & Roncevic, 2003; Adler & Seok-Woo, 2002).

Thus, they were classified as the dimensions as follows according to Adam & Roncevic (2003) and Adler & Seok-Woo (2002).

- Familiarity: measured by interacting with neighbors, from friendship degree to knowing them by name.
- Societal engagement (Joining local associations): measured by taking part in neighborhood activities.
- Movement: measured by reasons for leaving a region or a place of residence.
- Feeling of satisfaction: general contentment and a sense of belonging are two indicators of satisfaction.

There have been extensive researches conducted on gentrification (Less, Slater, & Wyly, 2008; Clay, 1979; Zuk et al., 2015; Yeom, Minkyu & Mikelbank, 2019), examining various indicators (Freeman, 2005; Vandergrift, 2006; Davidson, 2010) and its influence on physical components (Zanotti, 2018; Bhavsar, Kumar & Richman, 2020) and the social fabric (Gent & Hochstenbach, 2019; Bhavsar, Kumar & Richman, 2020). However, there is a noticeable lack of studies exploring the effects of gentrification on social interactions. This gap in research is especially evident in Jordan, where no study has yet been conducted to confirm the occurrence of gentrification in Jabel Al Weibdeh.

Research Methodology

This research seeks to examine the links between gentrification and social interaction between neighbors in Jabal Al-Weibdeh and the effect of gentrification on the social component. To achieve this, the research employed mixed research methods. It involved quantitative data collection followed by qualitative to elaborate the research findings (Creswell, 2012).

The first step in the methodology is to define the area of interest: the geographic boundaries of the area was determined to analyze. Then it gathered data on demographic changes: the changes in the population of the area over time, including changes in race, ethnicity, age, income, and education levels. This primary data, was collected from the Departments of Statistics and Land and Survey. This data is collected for the Jabal Al-Weibdeh neighborhood for different time periods (2005, 2015 and 2020). The data collected includes socio-economic factors such as population demographics, income levels, education levels, and housing characteristics, then classified to population scale and spatial scale.

According to the population scale that seek through study of socio-economic variables for those who reside in Jabal Al-Weibdeh, such as gender, age, family size, education level, kind of their job, and level of income.

Spatial scale the changing in places has also been studied by identified rent cost, value of land property, the changing in actual land use and increasing in the number of rented apartments.

The second step is to analyze the primary data collected in the first step to determine the indication of gentrification and its effects in the Jabal Al-Weibdeh neighborhood. This analysis involves comparing the data collected for different time periods to identify any changes or trends in the socio-economic factors that may indicate gentrification. It also ascertains the information that was collected. The place has been visited several times to make deep observation, to record the changes and record them on the map.

After identifying and analyzing the socio-economic factors that indicate gentrification in the Jabal Al-Weibdeh neighborhood. The methodology describes a second stage of research that aims to investigate the relationship between gentrification and social interaction among

neighbors in the Jabal Al-Weibdeh neighborhood. The research is based on data collected from a questionnaire administered in 2019. The questionnaire included questions that represented four dependent variables that were used to investigate the relationship between gentrification and social interaction among neighbors.

The first step in the methodology is to identify the dependent variables that were used to investigate the relationship between gentrification and social interaction among neighbors. The dependent variables were constructed based on previous studies and were chosen to represent different aspects of social interaction among neighbors.

The second step is to include questions in the questionnaire that correspond to the dependent variables. The questionnaire was administered to participants in the Jabal Al-Weibdeh neighborhood in 2019, and the questions were designed to gather information about the dependent variables. The questionnaire was conducted randomly.

The third step is to analyze the data from the questionnaire to investigate the relationship between gentrification and social interaction among neighbors. This involved comparing the responses to the questions about the dependent variables with other data such as socio-economic factors that indicate gentrification.

This methodology allows the researcher to investigate the relationship between gentrification and social interaction among neighbors by using a combination of primary data collected through questionnaires and secondary data collected from previous studies. By using multiple dependent variables, the research aims to provide a comprehensive understanding of the relationship between gentrification and social interaction among neighbors in the Jabal Al-Weibdeh neighborhood.

For example, Leyden (2003) considers knowing the neighbor's name as a dependent variable to examine whether neighborhoods that you can walk in there have multi groups encourage social engagement. Brueckner and Largey (2008) also considered a number of socializations with neighbors or whether affiliation for any local association as a tool for measuring social interactions. In addition, Lelieveldt (2004) used the expression "neighborliness" measured by knowing if the neighbors help each other or if they borrow tools or anything also. These indicators are studied as the dependent variables of this research.

In this research, the variables are.

- a) realizing the locals have been changing.
- b) connectivity with foreign neighbors in the same area.
- c) the amount of noise in the neighborhood before and after change; and
- d) the duration of using coffee shops.

The questions related to gentrification in Jabal Al-Weibdeh were.

- 1) Do you think your neighborhood changed negatively over the last (1/5/10) years?
- 2) Do you think the noise in your neighborhood increased?
- 3) How many times do you use the coffee shops per week?
- 4) Do you know any of the new neighbors of foreign residents?

And the questions related to the social interaction between communities were.

- 1) Do you know the name of your neighbors?
- 2) How many times do you contact your neighbors?
- 3) Do you provide help to your neighbors?
- 4) Do you belong to any local group?
- 5) How many times do you use public spaces?

H⁰: There is a relationship of statistical inductive measurable between the changes that took place in social interaction.

H¹: There isn't a relationship of statistical inductive measurable between the changes that took place and the social interaction.

Research Setting

The research was conducted in Jabal AlWeibdeh, which is in the center of the capital of Jordan Amman, within Al-Abdali region (Fig. 1). It covers an area of approximately 8 km² (Fig. 2). Jabal Al-Weibdeh is divided into two areas: Eastern Al-Weibdeh which borders on Al-Shmesani which is high income compared to the Western part, which borders Jabal Al-Hussein. There are 4388 houses in this area with a total number of 12874 residents (Department of Statistics - Jordan, 2019).

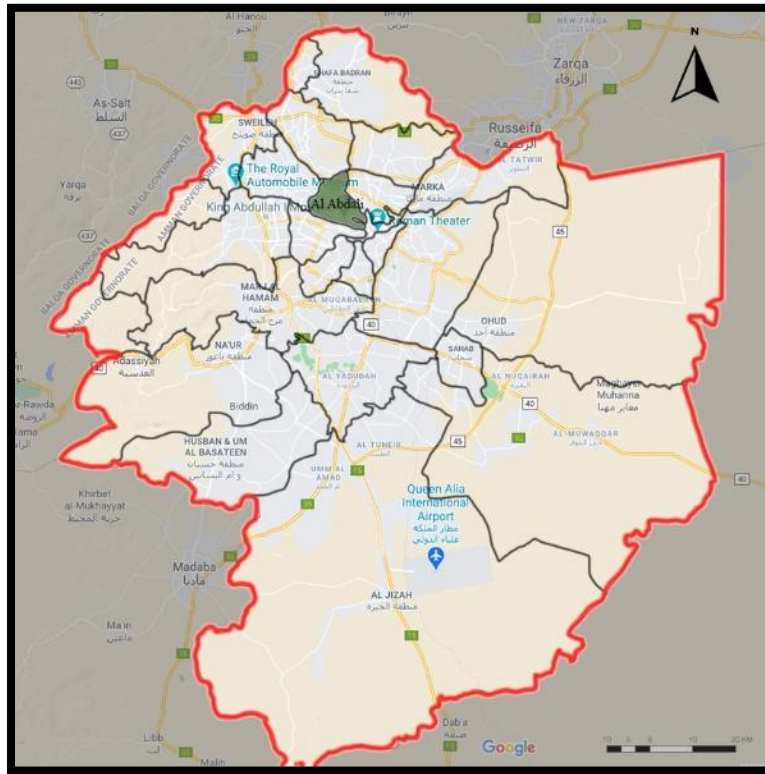


Fig. 1: Map of Amman City Showing the Different Regions.
Source: Greater Amman Municipality (GAM), 2021



Fig. 2: Map of Al Jabal Al-Weibdeh Neighborhood.
Source: Amman City GIS, reproduced by the researcher

It has also focused on the Western side of Jabal AlWeibdeh where the change was notable. The Jabal al-Weibdeh neighborhood is characterized by its early Ammani dwellings of the 1920s and 30s. Therefore, it is one of the oldest Amman's neighborhoods. Also, there are modern houses of the 1940s and 1950s. Jabal Al-Weibdeh has started to develop into what is referred to be an integrated gathering of cultural and artistic activities since the start of the 1990s of previous centuries. It contains the headquarters of many public and private organizations, the Association of Fine Artists, the Artists Union, the Jordanian Photographers Association, the Jordanian Writers Association, and dozens of professional artists for plastic artists who were drawn to live and work in Al-Weibdeh can all be found there. Numerous bazaars in Jabal Al-Weibdeh that specialize in selling artwork, oriental antiquities, and traditional crafts have turned the region into a popular tourist destination. In the city's new commercial district, the Abdali neighborhood, there are a variety of hotels. The site of Al-Weibdeh allows it to open to other areas, as well as the Pakistani Embassy, the French Cultural Center, Luzmila Hospital, the Artists Association, Darat al Funun, and Paris Roundabout, which is a beautiful tourist site.

There are also several old mosques and churches in beautiful architectural styles in Al Weibde; the most important and oldest of which are the Sharia Mosque, the Coptic Orthodox Church and the Luzmila Church. The neighborhood in the center of the country is linked to stairs known by the names of the families that inhabited it, the most important of which is the "Kalha Drawer", which also witnessed many changes and the restoration of some buildings on its sides, and the opening of restaurants and cafes which attract foreign tourists.

In recent years, Jabal Al-Weibdeh has undergone several changes and transformations like the arrival of foreign students who have settled in it. It now accommodates many of the official foreign embassies and foreign organizations, which has led to affect the residents and apartment rentals prices. There are increasing number of trendy cafés and art galleries as one of the most cultural and artistic activity neighborhoods.

Dissection

The methodology aimed to examine data for Jabal Al-Weibdeh by effective analysis answering many questions whereby collected the data from different sources were examined. Most of them came from the Department of Statistics and Department of Land and Survey. This stage helped to determine the focus area, which has been influenced by gentrification.

Neighborhood Gentrification Indicators

The methodology describes the aims of this research as to investigate the phenomenon of gentrification in the Jabal Al-Weibdeh neighborhood by evaluating the population scale. The research uses primary data from the Departments of Statistics in Jordan, collected in 2005, 2015, and 2020 to determine changes in the number of population or growth in different classes of households that indicate gentrification.

The first step in the methodology is to collect primary data on population demographics from the Departments of Statistics in Jordan. This data is collected for the Jabal Al-Weibdeh neighborhood for different time periods (2005, 2015 and 2020). The data collected includes the total population, population growth rate, age groups, and gender distribution.

Census (Population Growth): The second step is to analyze the data collected in the first step to identify any changes or trends in population demographics that may indicate gentrification. In this case, it's shown that the total population has increased from 110440 in 2005 to 215785 in 2016, a 95.7% increase and 409991 in 2020, growing at an average rate of 90%. the demographics of the population living in Jabal Al-Weibdeh (according to gender and age charts 3, 4 & 5) illustrate that most of the population in the neighborhood is comprised of youth, the dominant group is females. However, the most significant differences are that in 2020, the (65+) age group declined significantly. Meanwhile, the 25-29 and 30-34 age groups have increased.

The reason for this unlogic growth is that most of the people who live there are temporary residents (rented residents) and the indigenous those who moved to other locations.

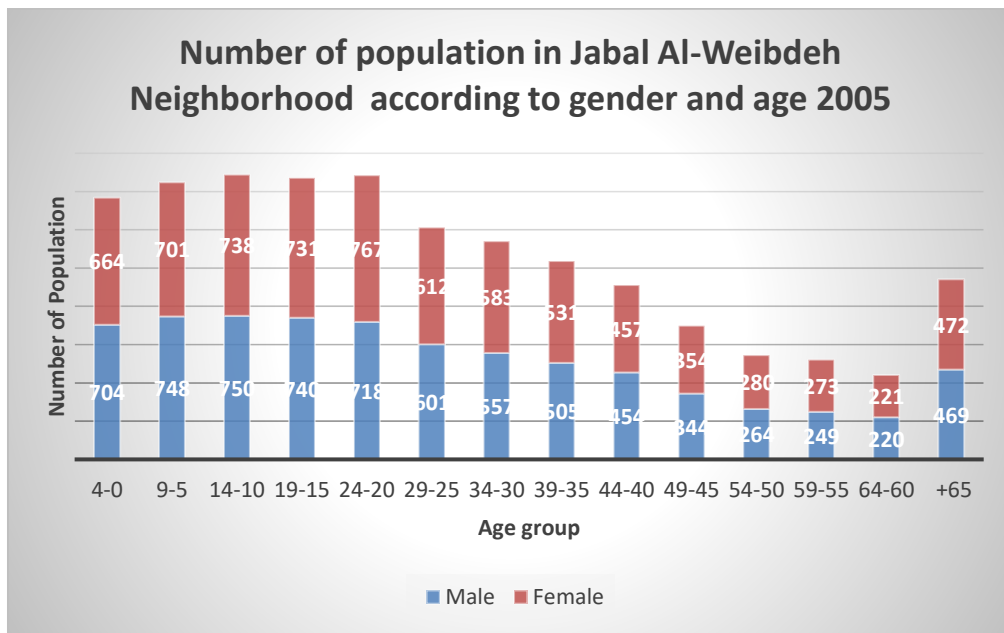


Fig. 3: Number of populations in Jabal Al-Weibdeh Neighborhood according to gender and age 2005

Source: Statistics Department in Jordan 2020, reproduced by the researcher

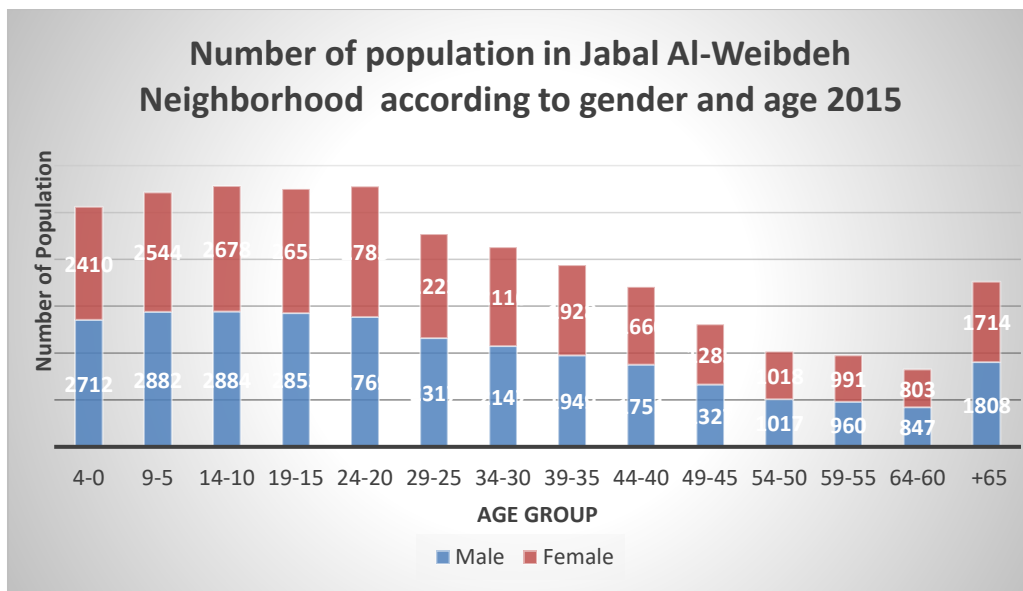


Fig. 4: Number of people in Jabal Al-Weibdeh Neighborhood according to gender and age 2015

Source: Statistics Department in Jordan 2020, reproduced by the researcher

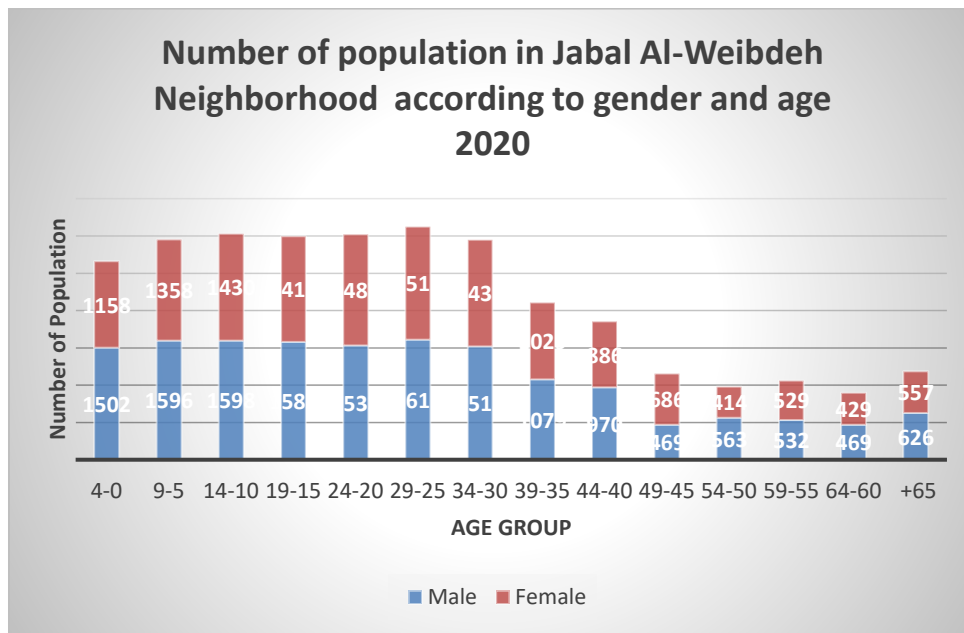


Fig. 5: Population in Jabal Al-Weibdeh Neighborhood according to gender and age 2020
Source: Statistics Department in Jordan 2020, reproduced by: the researcher

Ethnicity:

In addition, the Bar chart 6 illustrates the population of Jabal Al-Weibdeh according to the nationalities (ethnicity) in 2 different years, 2015 and 2020. It shows that the number of people of Jordanian nationality are clearly falling. On the other hand, the other nationalities are gradually increasing with more than a third of them present in 2020.

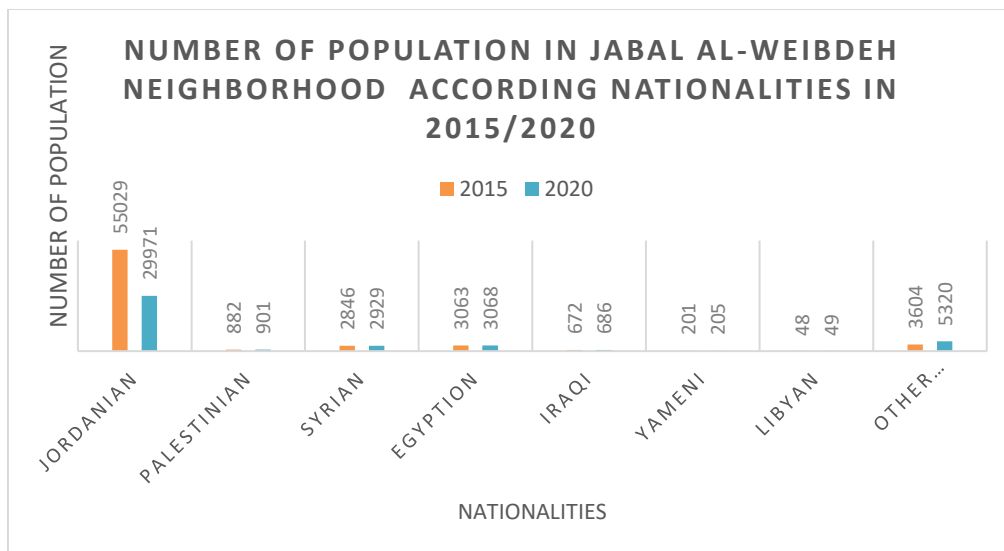


Fig. 6: Number of populations in Jabal Al-Weibdeh Neighborhood According Nationalities (ethnicity) in 2015/2020

Source: Statistics Department in Jordan 2020, reproduced by the author

Income: The reason for this unlogic growth is that most people who live there are temporary residents (rental residents). Additionally, it's shown that most foreign residents who lived in the neighborhood recently have their incomes ranging between 15000-30000 JD, which represents a transition from a middle-income neighborhood into a high-income

neighborhood. The individual median income of the local indigenous population is 500-700 JD, according to the Statistics Department in Jordan 2020. The neighborhood's population has also changed noticeably, moving from family-oriented residents to educated young singles or couples without children. For instance, the percentage of inhabitants who were single from 2005 to 2015 increased to 35%.

Age

Additionally, in the methodology, it is noted that the demographic changes in the neighborhood are also analyzed in relation to the entry of new renters and the eviction of indigenous residents. In 2015, it was found that 85% of singles in the neighborhood were between the ages of 24-45, up from 68% in 2005. This significant increase in the number of young, single renters is seen as a direct result of new renters entering the neighborhood and potentially displacing indigenous residents. This change in the demographic makeup of the neighborhood can have a significant impact on the social fabric of the community and may lead to displacement and loss of cultural and social diversity. This phenomenon is supported by previous studies conducted by Zuk et al. in 2015.

Based on the population data analysis, it appears that the neighborhood is undergoing gentrification. This is indicated by a shift in demographics, with an increase in the number of people in the 25-29 and 30-34 age groups, and a decline in the number of people in the 65+ age group. Additionally, the population has increased by 97%, and there are fewer people of Jordanian nationality. There has also been a change in income levels, with the population transitioning from a middle-income neighborhood to a high-income neighborhood, and in education levels, with more educated young singles or couples without children moving in. All these changes suggest that gentrification is taking place in the neighborhoods.

Spatial scale

Analysis of Changes in Housing:

Based on the data from the Department of Land and Survey in Jordan 2020 and face-to-face interviews with locals, as well as site visits to the Jabal Al-Weibdeh neighborhood, it appears that there have been changes in the housing stock that indicate gentrification. Specifically, changes in the appearance of the neighborhood have been observed in the region between Paris Square and the Sharia'ah mosque. The changes have been most pronounced in the area near Paris Circle, Sharia Mosque, and Al-Muntazah, and have been taking place for around six years. These changes likely indicate that gentrification is occurring in the neighborhood, as the housing stock is being renovated or replaced with new, more expensive properties.

Jabal Al-Weibdeh neighborhood is divided into 3 parts: Al-Weibdeh Western, Al-Weibdeh Middle, and Al-Weibdeh Eastern (Fig. 7).

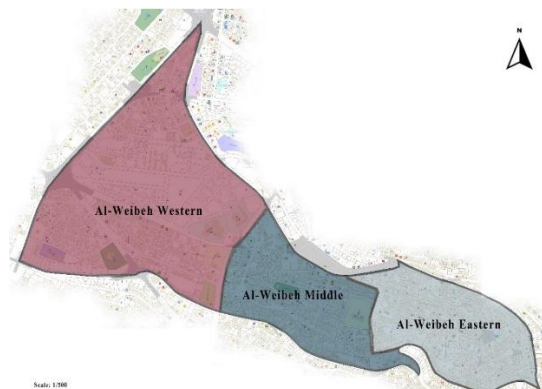


Fig. 7: Map of Al Jabal Al-Weibdeh Neighborhood.
Source: Amman City GIS, reproduced by the researcher

Increases in property values: Fig. 8 illustrates the change in the market value of residential land from 2006 to 2020 per meter square. It shows that the prices of land have dramatically increased over time. Specifically, prices have risen from 120 JD/m² in 2006 to 1000 JD/m² in 2019. This increase in property values is often used as a measure of change in the built environment and can have a direct impact on the price of sales and rental. The steep increase in land prices shown in the figure is a strong indication of gentrification in the neighborhood, as it suggests that the cost of housing is becoming increasingly unaffordable for residents.

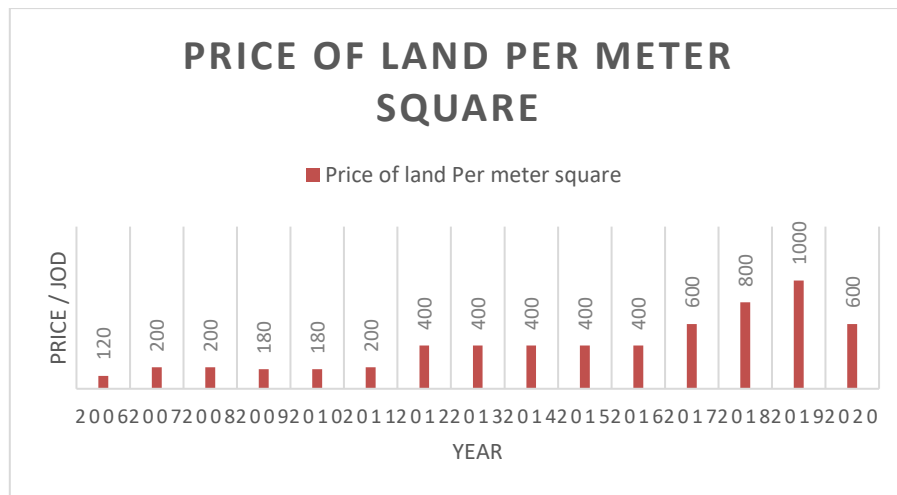


Fig. 8: Price of land per meter square 2015/2020

Source: Department of Land and Survey in Jordan 2020, reproduced by: the researcher

Home ownership rates:

Overall, the increasing land values in Jabal Al-Weibdeh Neighborhood from 2006 to 2020 have led to changes in land ownership and occupancy in the area. As shown in Fig. 9, there has been a clear rise in land sales from its owners between 2012 and 2018. This likely indicates that residents are being pushed out of the neighborhood due to the rising cost of housing and are selling their properties to new, wealthier buyers. This trend of residents selling their properties is a characteristic of gentrification and it's a clear indication of the process taking place in Jabal Al-Weibdeh Neighborhood.

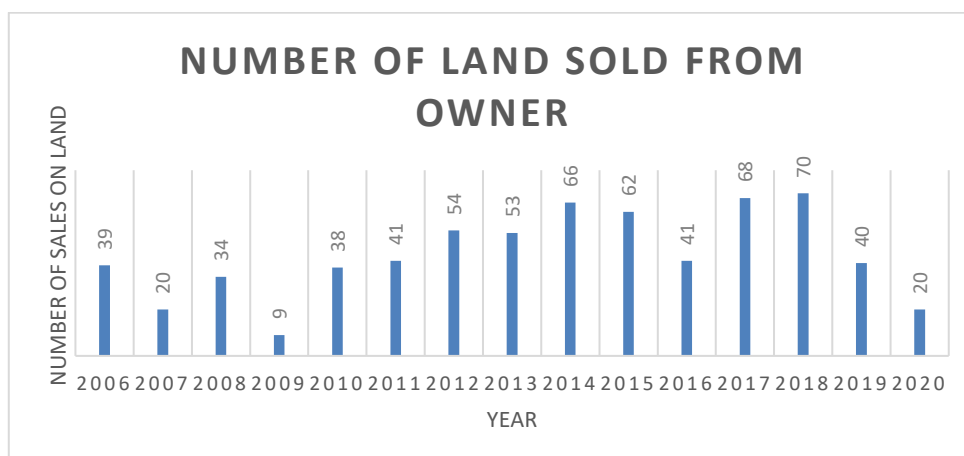


Fig. 9: land Ownership Occupancy in Jabal Al-Weibdeh Neighborhood 2006 to 2020 by Parcel.

Source: Department of Land and Survey in Jordan 2020, reproduced by the researcher

Increases in rents:

The dramatic rise in real estate prices over a period of five to six years in Jabal Al-Weibdeh Neighborhood has also had an impact on rent values, which have changed in a similar range. As shown in Fig. 10, the rent for an apartment has risen from 180 to 350 JD up to 1,000 JOD per month for the same area, this is for furnished apartments. This significant increase in rent reflects the rising cost of housing in the neighborhood, as landlords are able to charge higher prices for rent due to the increased demand for housing from wealthier residents. This trend of rising rent prices is a characteristic of gentrification and is a clear indication that it is taking place in Jabal Al-Weibdeh Neighborhood.

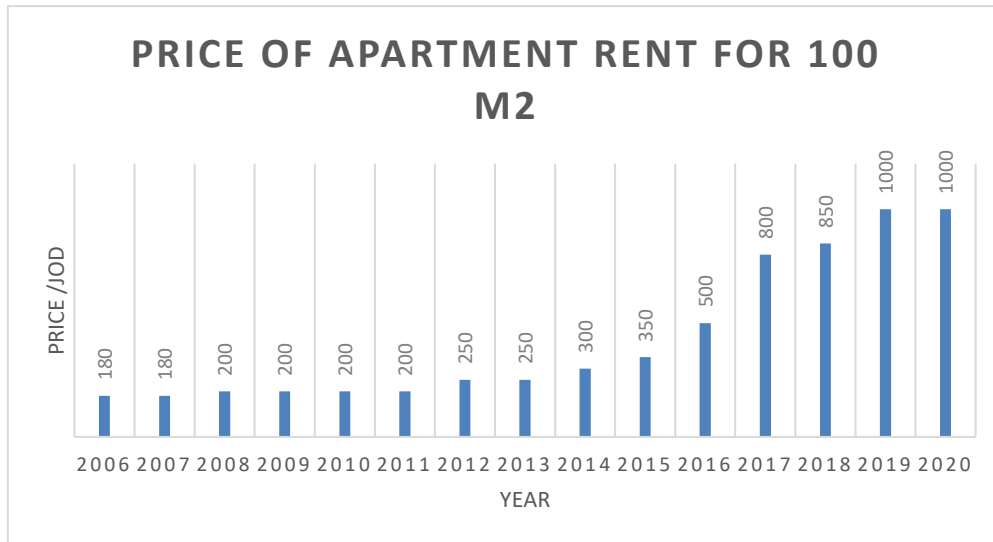


Fig. 9: Change in Average Rent Expenditures 2006 to 2020 for 100 m2
Source: Department of Land and Survey in Jordan 2020, reproduced by the researcher

Signs of new development:

The land use in the Al-Weibdeh neighborhood has been changing from 2009 to 2016, according to face-to-face interviews with locals and several site visits to the neighborhood. The change shows an increase in the amount of commercial land. The total area of Jabal Al-Weibdeh is 2245.872 square kilometers, and the focus area is 312.156 square kilometers, which is equivalent to 13.90% of Jabal Al-Weibdeh. Within the focus area, there have been many changes in land use, with 11.39% of the total focus area changing from normal commercial activities within the residential Type C special provisions to totally commercial activities. Additionally, 4.7% of the total focus area has changed from commercial to Residential Type C and 1.5% of the total focus area has changed from offices to Residential Type C. In total, the area of all changes in land use is equal to 17.59% (as shown in Figs 10 & 11). These changes in land use could be a sign of gentrification, as the area is becoming more commercial and less residential, with more businesses and fewer homes.



Fig. 10: The Land use of Al Jabal Al-Weibdeh Region in 2009.
Source: Amman City GIS, reproduced by the researcher.

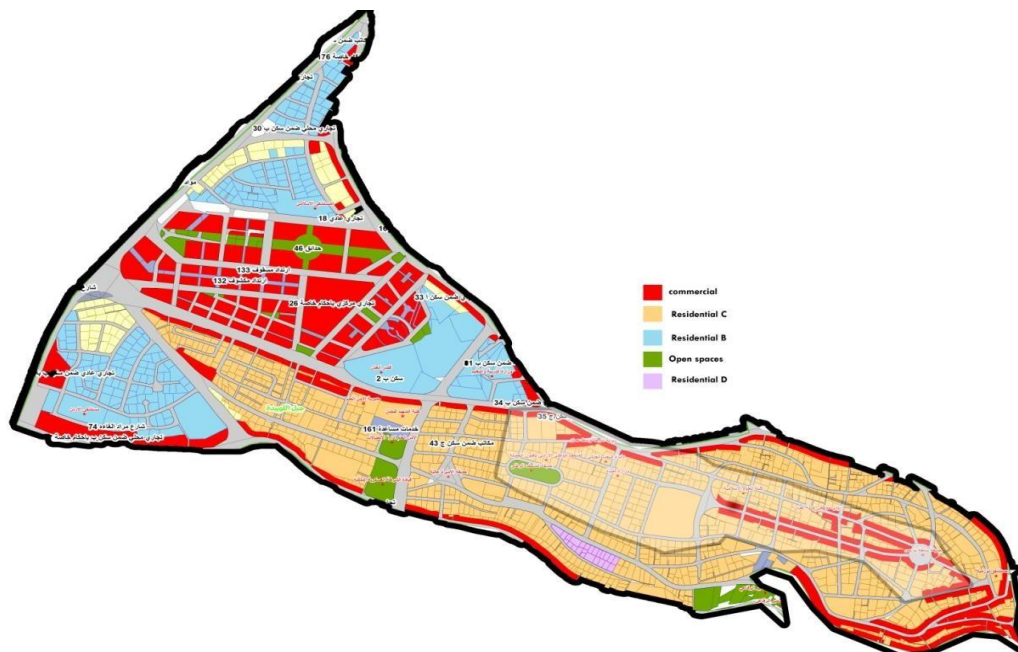


Fig. 11: Map of Land use of Al Jabal Al-Weibdeh Region in 2016.
Source: Amman City GIS, reproduced by the researcher.

Renovations of existing buildings:

In summary, the increase in apartment construction in the focus area over the last ten years is likely a response to increased demand from single and student tenants, as well as a change in investment preferences among property owners. This demographic shift has also led to a change in the usage of land and housing units, and a corresponding rise in rent prices due to high demand. During the last ten years, the number of apartments has increased in this focus area. This is in response to the increased demand for apartments (Fig. 12). there are also many places that make renovations to use as a cafes or restaurants in this focus area (Fig. 13)



Fig. 12: Map of apartments of Al Jabal Al-Weibdeh Region in 2019.
Source: Amman City GIS and observation, reproduced by the researcher.

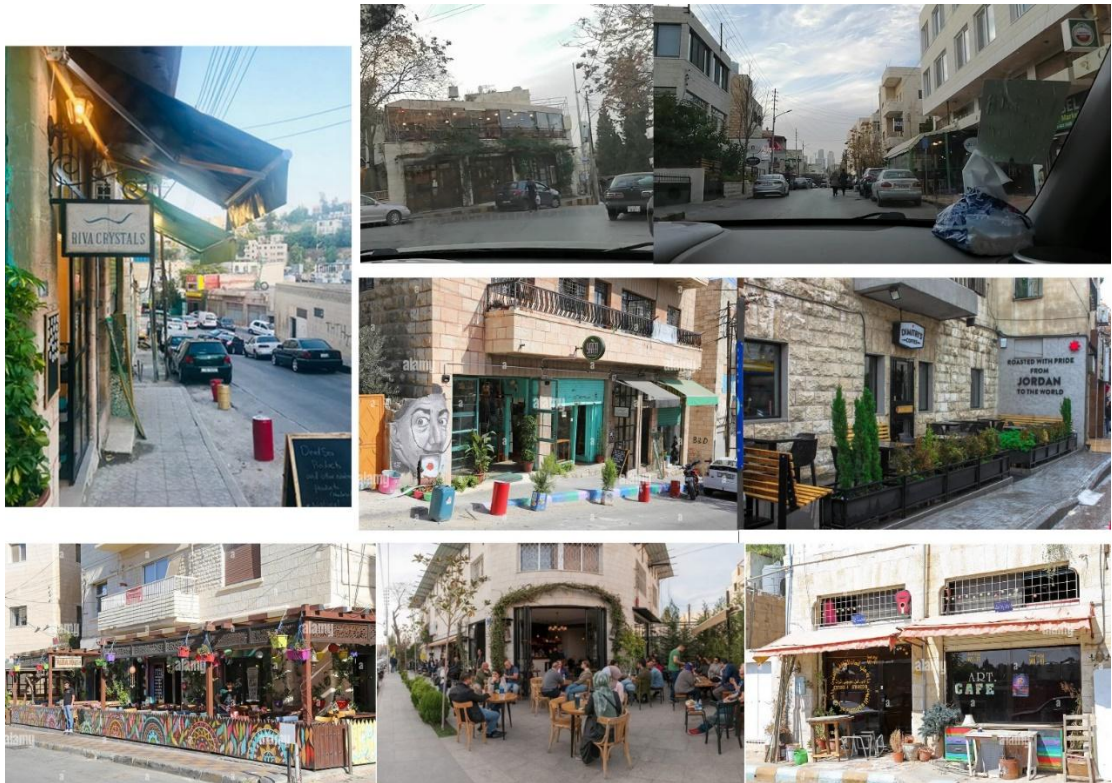


Fig. 13: some of cafes that were found after 2017.
Source: <https://www.alamy.com/> and the researcher.



Fig. 14: Renovations of existing buildings after 2017.

Source : <https://www.alamy.com/>

The study identified several indicators of gentrification and used them to conclude that the Jabal Al-Weibdeh neighborhood is experiencing gentrification. This is likely indicated by changes in the demographics of the area, an increase in rent prices, and a shift in the usage of land and housing units. It leads to a conclusion from part one of the research which led to the initiation of part two, which aims to investigate the relationship between gentrification and social interaction among the new local communities.

Gentrification And Social Interaction

Questionnaire analysis

The data was collected from indigenous residents of the focus area and an analysis of the socio-economic characteristics of the sample found that 78% of the respondents owned their homes and had lived in the neighborhood for less than 20 years. Additionally, 60% had a bachelor's degree and 5% had a higher level of education. There was also an increase in the number of employed individuals, which accounted for almost 90% of the sample. Most of the indigenous residents had 1-2 children and were between the ages of 36-45.

The second phase of this part is evaluating the change in social interaction among the indigenous residents of the focus area, before and after the changes (presumably related to gentrification) occurred. Four factors are used to define social interaction: familiarity, helping and support, societal engagement (such as joining local associations). Familiarity is measured by two questions: the number of contacts between neighbors and knowing the neighbors' names.

The research has used a question to measure familiarity by asking the respondents if they know the names of their neighbors. The response rate for the question of knowing the name of the neighbors are the highest percentage of those who know the names of some of the neighbors accounted for 56.6% and the lowest rate was for those who know the names of all the neighbors' amount to 9.4%. This suggests that the majority of the respondents have some level of familiarity with their neighbors, but not all of them know all of their neighbors' names.

The research has used a chi-squared test to examine the relationship between whether the neighborhood has changed in a bad way and whether respondents know the names of their neighbors. The results show that 12 cells, representing 75.0%, have expected tally less than 5 and the minimum expected count is 19. The Asymp. Sig. (2-sided) is likely a p-value, which is used to determine the statistical significance of the relationship between these two variables. A p-value of 0.05 or less is generally considered statistically significant, meaning that there is a strong relationship between the two variables (see table 1).

Table 1 : Questionnaire results

Source : The questionnaire.

	Pearson Chi-Square	Likelihood Ratio	Linear-by-Linear Association	N of Valid Cases
Know neighbors				
Value	13.924 ^a	15.018	3.672	53
df	9	9	1	
Asymp. Sig. (2-sided)	.125	.09	.055	
12 cells representing 75.0 per cent have expected tally less than 5 and the minimum expected count is 19.				
Frequency of contact				
Value	8.287 ^a	9.494	.037	53
df	15	15	1	
Asymp. Sig. (2-sided)	.912	.85	.847	
* 22 cells representing 91.7 per cent have expected tally less than 5 and the minimum expected count is 04.				
Helping's indicator– helped each other				
Value	6.207 ^a	7.230	.305	53
df	12	12	1	
Asymp. Sig. (2-sided)	.905	.842	.581	
16 cells representing 80.0 per cent have expected tally less than 5 and the minimum expected count is 08.				
Joining local associations				
Value	9.764 ^a	9.332	2.913	53
df	6	6	1	
Asymp. Sig. (2-sided)	.135	.156	.088	
8 cells representing 66.7 per cent have expected tally less than 5 and the minimum expected count is 08.				
Uses the public space				
Value	17.000 ^a	17.799	6.442	53
df	15	15	1	
Asymp. Sig. (2-sided)	.319	.273	.011	
21 cells representing 87.5 per cent have expected tally less than 5 and the minimum expected count is 11.				
Making noise				
Value	2.796 ^a	3.235	.365	53
df	3	3	1	
Asymp. Sig. (2-sided)	.424	.357	.546	
5 cells representing (62.5%) have expected tally less than 5 and the minimum expected count is 38. 3.093 ^a				
Making noise and contact with your neighbors.				
Value	3.093 ^a	3.170	.238	53
df	5	5	1	
Asymp. Sig. (2-sided)	.686	.674	.625	
10 cells representing (83.3%) have expected tally less than 5 and the minimum expected count is 08.				
Making noise and help to your neighbors				
Value	1.891 ^a	2.620	.486	53
df	4	4	1	
Asymp. Sig. (2-sided)	.756	.623	.486	
8 cells representing (80.0%) have expected tally less than 5 and the minimum expected count is 15.				

Frequency of contact

The research has also used a question to measure the frequency of contact between neighbors, by asking respondents how often they communicate with their neighbors. The responses were coded using a six-point Likert scale, ranging from "never" to "every day". The highest percentage of those who communicate with neighbors less often accounted for 41.5% and the lowest rate was for those who communicate once a month, which amounts to 1.9%. This suggests that the majority of the respondents have some level of contact with their neighbors, but not everyone communicates with them every day.

1. The research used a chi-squared test to examine the relationship between the questions of whether the neighborhood has changed in a bad way and the frequency of contact between neighbors. The results show that 22 cells, representing 91.7%, have an expected tally less than 5 and the minimum expected count is 0.4. The Asymp. Sig. (2-sided) is likely a p-value, which is used to determine the statistical significance of the relationship between these two variables. A p-value of 0.05 or less is generally considered statistically significant, meaning that there is a strong relationship between the two variables, the more the neighborhood changed to the bad way, the less contact the residents have with their neighbors (Table 1).

The results suggest that good neighborly ties can lead to friendship and strong social connections. Factors such as shared memories or objectives, common age groups, and shared hobbies can strengthen these bonds and motivate neighbors to socialize and interact with one another. However, the research also suggests that there has been a decline in the helping and support aspect of social interaction, which may indicate that while there may be a level of familiarity and engagement, there is less of a sense of community and mutual support among residents. This could be an indication that gentrification has led to a change in the social dynamics of the neighborhood, and that the new residents may not have the same level of connection and engagement with the indigenous residents.

Helping's indicator– helped each other.

The other dependent variable represents the rate of response for those who have helper's relationship between neighbors. This variable was formed according to the question that asked participants if having any kind of help between you and your neighbors and the answer was in four specific categories:

- 1) borrowing them money.
- 2) housework, go shopping together, participation in fixing or allowing to use tools on loan.
- 3) being house sitting to care of their family member, either a child or old; and
- 4) Attention to their problems.

The research suggests that there is a low rate of helping relationships between neighbors in the focus area, with the majority (50.9%) of participants indicating that they do not provide any kind of help to their neighbors. This is contrasted with a small percentage (3.8%) of participants who reported providing help in all four aspects (borrowing money, housework, house-sitting, and attention to problems). This could indicate that there is a lack of mutual support and aid among residents, which is an important aspect of social interaction and community engagement. It could also be an indication that gentrification has led to a change in the social dynamics of the neighborhood, and that the new residents may not have the same level of connection and engagement with the indigenous residents.

- 5) The relationship between questions changed to the bad way and help to your neighbors (Table 1).

This may be related to how the neighborhood has changed, drawing residents from various backgrounds. Based on that, the native people would not feel comfortable mingling with new neighbors who could hold different cultural views and values, and they might decide

to leave the area or don't communicate with anyone by establishing closed group rather than assimilating to the new social environment. Displacement might damage social networks, which would ultimately hurt social interaction (Freeman, 2005). Before the neighborhood underwent changes, the residents were seen as a cohesive community that operated as a collectivistic society dependent on cooperation and consent. A civilization that places a greater emphasis on individual success and freedom than it does on teamwork. This might weaken social ties and discourage emotions of dependency, both of which would be detrimental to the survival of society.

In summary, the data collected from the indigenous residents in the focus area suggests that there is a relationship between gentrification and social interaction. The analysis shows that there has been a decline in social connections, specifically in familiarity, frequency of contact, and helping and support between neighbors. This could be due to the influx of new residents with different cultural views and values, which may lead to a feeling of discomfort among the native residents and a lack of willingness to socialize and establish connections with new neighbors. This decline in social interaction could be seen as a negative impact of gentrification on the community.

Joining local associations

The last dependent variable in this research represents the rate of participants who announced affiliation for any local group. Like the steps used in the construction of the helping's indicator variable. according to this indicator, the research has collected the responses for the question that asked locals if they are joining any local group, which includes:

- 1) Jabal Al-Waibdeh Facebook groups.
- 2) Jabal Al-Waibdeh communities.
- 3) local youth club.
- 4) Folca/ Friends of Al-Weibdeh Association; and 5) other groups related to your neighborhood.

The highest percentage of those who did not attend local groups accounted for 71.7% and the lowest rate for those who did attend where two sets accounted for 3.8% (see table 1). As a result, teens, foreigners, tourists, and non-native inhabitants make up the bulk of clubs' members (temporary stay). This may help to explain why indigenous inhabitants have a bad attitude toward local groups.

According to the questionnaire analysis, 71.7% is the percentage of tenancy occupation status. It dominates Jabal Al-Weibdeh as most of the original inhabitants of the region left their housing to go to another region. They have rented their housing. 81.1% is the percentage of the period which they live in Jabal Al-Weibdeh more than 10 years which means they have testified all changes in this region.

80.6% of the respondents have confirmed the change in the region. Furthermore, the sense of belonging among inhabitants, which was determined to be favorable before the change in the neighborhood, was used to measure satisfaction. Before neighborhood changes, the optimistic attitude can have referred to the social cohesiveness that binds a community via shared experiences and dreams as well as group activities. but 70% of the respondents considered the changes in the region and on the social interaction between the communities as negative changes. In addition, most of the community didn't communicate with any new resident which 56.6% of who don't communicate with any resident and 30.1% communicate with some of them.

This result suggests that the changes in the neighborhood may have had a negative impact on the residents' engagement with local associations and groups. The low participation rate in local groups may reflect the fact that many of the new residents are temporary and do not have a strong connection to the community. Additionally, it could be that the new residents have different interests and values than the native inhabitants, making it difficult for them to

find common ground with existing local groups. This can also be understood as a lack of trust among inhabitants and a lack of sense of belonging to the community. This lack of engagement in local groups can further weaken social ties and limit opportunities for community building and social interaction. Overall, the results of this research suggest that changes in the neighborhood have had a negative impact on social interaction among the residents, specifically in areas of familiarity, helping and support, and societal engagement.

- 5) The relationship between questions of changed to the bad way and uses the public space (see table 1).
- 6) The relationship between questions makes noise (Table 1).

The relationship between questions of changed to the bad way and affiliation with local groups (Table 4) may also show a correlation between the negative change in the neighborhood and a lack of interest in joining local groups. As the neighborhood changes and becomes less familiar or desirable to native residents, they may become less likely to participate in community activities or groups. This can further erode a sense of community and belonging in the area, which can further contribute to feelings of disconnection and dissatisfaction among residents. Overall, the findings of this research suggest that changes in the neighborhood, such as increased noise and crowds, can have a negative impact on social connections and community engagement among residents. Contrary to what the native residents preferred, the conversion of land use from residential to commercial resulted in an increase in noise and crowds, especially during the summer. As a result, many of them began moving out of the area or making investments by turning their homes into rental studio flats, tiny apartments, or eateries and cafés. This diminishes social contact and dilutes the feeling of place in the neighborhood, which both have a detrimental effect on its identity.

- 7) The relationship between questions of makes noise and contact with your neighbors (Table 1).
- 8) The relationship between questions makes noise and helps your neighbors (Table 1).

The relationship between the increase in noise levels in the neighborhood and the decreased level of help and support among neighbors is significant. The conversion of land use from residential to commercial, along with an increase in noise and crowds may have led to many native residents moving out of the area or turning their homes into rental properties. This has resulted in a decrease in social contact and a dilution of the sense of community in the neighborhood. This decline in social connections, along with the feeling of place and identity, may have a detrimental effect on the overall well-being of the community. It is possible that the increased noise levels may be seen as a nuisance and a disruption to the daily lives of the residents, leading to a decrease in neighborly interactions and support.

In summary, the research suggests that changes in land use, population demographics, and an increase in noise and crowds have had a negative impact on social interaction and community bonds in the region. The emigration of indigenous populations and the influx of individuals from different cultural backgrounds have contributed to this weakening of social ties. Additionally, the increased usage of coffee shops and contact with new neighbors have also been shown to negatively affect social interaction. It is concluded that changes in the neighborhood have had a detrimental effect on social cohesion and community bonds.

Conclusions

The research suggests that the Jabal Al-Weibdeh neighborhood is in the process of gentrification, which is causing a decline in social interaction between neighbors. This is likely due to the displacement of indigenous residents and the influx of individuals from different racial and cultural backgrounds. The research proposes that planners use the index of gentrification to identify which neighborhoods are more likely to gentrify, and use this

information to make modifications to policies, programs, and planning decisions. Additionally, the research suggests that social interaction is negatively affected by gentrification and that public spaces, such as parks, are important for promoting social interaction in the neighborhood.

Recommendations

All indicators show the calculating of gentrification index is effective in this area and creating a model for the changing in social interaction based on indicators over long time periods. However, the model can be more effective if some adjustments are made, calling for additional research.

Further research could be built from the results of this research to justify the inclusion of several indicators representing different dimensions of gentrification. This paper has investigated only gentrification in this region as it has not assessed displacement of the community to another region. It is recommended that this effect is assessed because it is associated with gentrification and may support the presence of gentrification in Jabal Al-Weibdh.

Further recommendations are required as to how gentrification impacts on the economic situation, and to check whether it brings higher incomes to the neighborhood and if it increases property taxes in the middle-income urban neighborhood.

This study urges the government to act, by not giving authorization to the opening of new coffee shops in this region, to preserve the neighbourhood characteristics. Nevertheless, this study has its own limitations being a single case study. More studies are required to generate deep insights and arrive at final conclusions.

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Availability of Data: The author declares that the data employed for this study are available for scrutiny if so required.

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