

Sustainability of the Oldest Squatter Settlements of Bursa: A Study on Mollafenari and İvazpaşa Neighbourhoods

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Abstract

Change in the production processes has been a significant factor that affects the social organisation and shapes the urban form. For Bursa, the first Ottoman capital city, the change was stimulated with the emergence of silk factories working with steam and the increasing need for labour starting from the late nineteenth century. This need triggered a population flow from nearby villages to the city's southern outskirts through the migration routes passing along the slopes of Uludağ mountain. Mollafenari and İvazpaşa neighbourhoods located between the mountain and the historic city were developed as a result of this process. Starting from the mid-twentieth century, Bursa was subject to another yet unprecedented migratory flow that has affected all major cities of the country. The migrants mainly originated from the surrounding villages created their squatter settlements between the city's old neighbourhoods and the mountain's steep slopes. The resulting urban development did not follow any specific rules; the migrants have shaped their self-organised territories in the close vicinity of their working places. The squatter neighbourhoods have been consolidated through physical and social stratification that formed a whole system. These neighbourhoods that their residents shaped have acquired a strong sense of place and have proven to be socially sustainable for almost seventy years. However, under the effect of rapid transformation that the city centre is subject to, these settlements are at risk of demolition today. Therefore, thinking of their physical and social sustainability without losing their current values and potentials is necessary, in line with the United Nations' Sustainable Development Goals, namely "Sustainable Cities and Communities". This study aims to analyse the urban morphological and architectural attributes of these old squatter settlements and discuss their sustainability as successful urban places.

Keywords: squatter settlements, historic urban fabric, sustainability, urban morphology, Bursa

Introduction

Squatter neighbourhoods have always been accepted as one of the problems preventing urbanisation in cities by governmental authorities. Especially in the Turkey context, they are the first eliminated structures during an urban transformation process. Statements given by policymakers to the media create a negative image in society's mind. Therefore, the consideration of these settlements as sustainable living places is underestimated by stakeholders except communities living in these areas. This situation puts inhabitants under the pressure of the fear of losing their houses to rapidly developed urban transformation projects.

These neighbourhoods need to be acknowledged for their physical and social problems and their potential to design a sustainable future. Most of the current transformation projects lead to a commodification and gentrification process that increases the land value and displaces communities from their living areas to the outskirts of the cities. An inclusive planning and design process should be developed with full awareness of

these neighbourhoods' physical and socio-spatial potentials and problems to ensure a more sustainable regeneration process.

In this study, Mollafenari and İvazpaşa neighbourhoods in Bursa are chosen as the case study due to their complex architectural and urban structure and their significant location on the edge of the historic city centre. This paper aims to underline potentials and clues for the future of these self-organised settlements by analysing their architectural and morphological characteristics. Another point that the study aims is looking from a constructive perspective to squatter settlements.

In the paper, firstly, key points about sustainability in neighbourhoods from the literature are given. Then, the urbanisation history of Bursa historic city centre and the case study are summarised. After the methodology used in the study is explained, analysis of the case study and findings are discussed. Lastly, concluded remarks and interpretations about findings are given under the conclusion.

Background

Sustainability within Squatter Neighbourhoods

Squatter settlements (called "spontaneous settlements" by Amos Rapoport in 1988) are primarily discussed in terms of social, economic, and political aspects. The opportunity to consider the physical aspects of these neighbourhoods as mirrors of culture is overlooked (Rapoport, 1988). According to him, valuable lessons can be learnt from the nature of these physical aspects and how they are achieved.

These settlements can be evaluated as the contemporary counterpart of vernacular design (Rapoport, 1988) and can inspire current developments. Rapoport makes this comparison and finds similarities between them by looking at process and product characteristics of spontaneous settlements, such as identity and purposes of designers. He underlines the coherence and success of these neighbourhoods with residents' cultural backgrounds and physical and perceptual qualities. (Rapoport, 1988)

Squatter settlements are shown as the example of habitat selection, self-organisation and living architecture (Pugh, 2000). They are developed over a long period with a series of informal decisions by many individuals. Therefore, in this manner, these settlements are like "cultural landscapes" (Rapoport, 1988).

Local builders who are living in these neighbourhoods improve their houses according to their changing needs in time. They improve not only the houses but also the surrounding of these structures using landscape and agriculture. The feeling of attachment and commitment that makes them protect and improve these areas can be seen as the reflection of home definition in their subconscious (Pugh, 2000). As Charlie Pugh mentions, these local builders use historical and local knowledge and qualities in living architecture (Pugh, 2000). Therefore, this long-term commitment and knowledge support the physical and social sustainability in these areas.

Mollafenari and İvazpaşa Neighbourhoods in Historic City Bursa

In order to comprehend the physical and social significance of these two neighbourhoods, the urbanisation history of Bursa should be taken into consideration. Many civilisations have ruled Bursa since the 7th century according to its known history, including the Roman Empire, Byzantine Empire and lastly Ottomans starting with the siege in 1326 by Sultan Orhan (Bağbancı and Bağbancı, 2010). Therefore, the architectural and urban texture of Bursa has been shaped by the stratification of these historical periods.

Two major factors played significant roles in the development process. First of them is the rich geographical character of the city. Uludağ Mountain (Mt. Olympus of Bithynia), situated at the south of the city, became a base for the city with its foothills and a monumental background for its architecture. Also, two streams sourced by the mountain, Gökdere and Cilimboz, creates small valleys enhancing the topography-based urban character of the city (Pancaroğlu, 1995) (Figure 1).

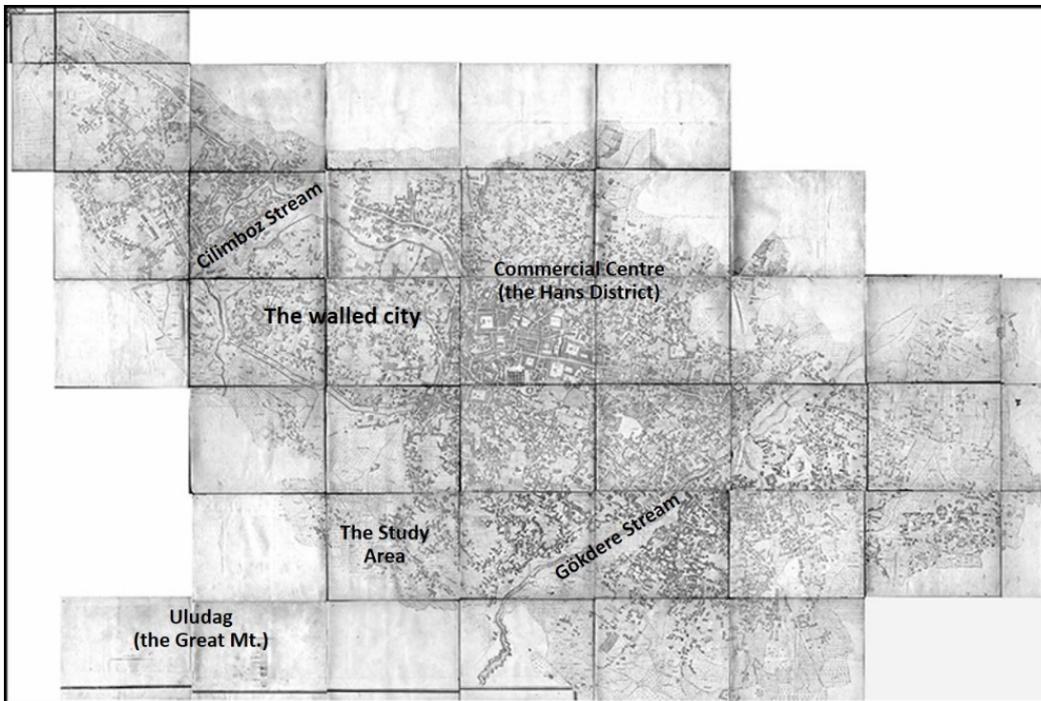


Figure 1. 1862 Bursa Map drawn by Suphi Bey and his team (Source: Bursa city Museum Archive)

The second factor is the industrialisation process and its effect on the urban texture. After being the capital city in 1335, Bursa became a major commercial and political centre for the Ottomans (Kuran, 1996). It was turned into an international commercial and transfer centre for silk, spice, and soft goods by being a stop of the Silk and Spice Roads connecting the east and west (Bağbancı and Bağbancı, 2010).

Under the effect of the Industrial Revolution, steam-powered silk factories started to be established in the city, especially next to the Gökdere and Cilimboz streams, starting in the 1830s (Erder, 1976). This advance created an increasing need for labour. Because the number of Greek and Armenian workers was insufficient, Turkish families migrated from nearby villages to the city (Kaygalak, 2008). These major political and

economic changes led to a significant increase in population and densification of urban texture accordingly (Özbek Eren, 2012). This Neo-Ottoman modernisation process had lasted until the 1920s (St. Laurent, 1989).

All these workers settled in nearby areas of silk factories, the historic city, and the commercial centre, especially within geographically unsuitable areas like slopes and riverbeds (Erman, 1997). While the study area situated on the foothills of the Uludağ Mountain had an agricultural character with few housings, the number of residential units started to increase due to the need for labour in the immediate surroundings of factories (Çalışkan and Akbulak, 2010a).

This increase was accelerated starting in the 1950s with the establishment of industrial zones in the city. This situation affected the socio-economic characteristics of the community and the rural-urban balance of the city (Çalışkan and Akbulak, 2010b). Therefore, it increased the number of squatter settlements in the study field (Figure 2).

It is possible to define the physical characteristics of these two neighbourhoods as multi-layered and complex. The main factors that create this unique structure are residential typologies belonging to different periods and a wide range of slopes between 20 and 45 degrees that make residents discover various architectural solutions to deal with this challenging topography (Figure 3). In addition, there are historical mosques, tombs and one public bath that dates back to the Ottoman period. With their both physical and social complexity, Mollafenari and İvazpaşa neighbourhoods need to be considered in detail without an idea of destruction.

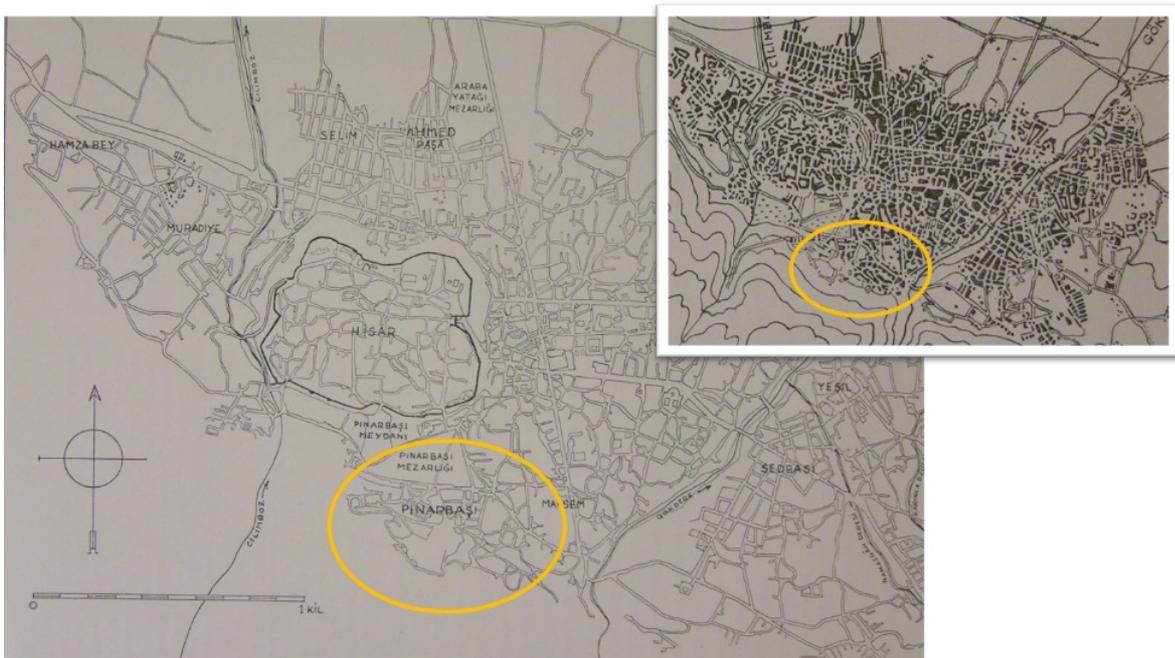


Figure 2. 1958 Street Layout and Figure-Ground Map drawn by Albert Gabriel (Source: Albert Gabriel, 1958, "Une Capitale Turque: Brousse, Bursa")



Figure 3. 2015 Aerial Photograph of the Study Area (Source: Ministry of National Defence General Directorate of Mapping), Photograph showing the area situated on Great Mountain's foothills (Source: Çalışkan & Akbulak, 2010)

Methodology

In the study, qualitative methods are used to analyse the case study. By taking photographs and observing the daily life in these neighbourhoods, the architectural attributes and their reciprocal relationships with residents and their everyday life are revealed. In addition, the morphological attributes are analysed by using historical maps of the city, aerial photos and drawings prepared in different formats.

Results and Discussions

Morphological Attributes

As in most urban places, the morphological characteristics of this settlement is mainly shaped by the topography. Mollafenari and İvazpaşa neighbourhoods are situated at the foothills of Uludağ mountain, which has a slope reaching 45 degrees. Thanks to this slope, the area has a panoramic view of the historic city centre, making the area significant in terms of location. This natural aspect plays a significant role in the shaping of streets. In the area, streets are narrow and shaped parallel to the slope of the hills. It can be differentiated from the organic layout of the historic walled city (Figure 4-right image).

The urban plots in the area are more longitudinal than city centres`. Due to reach the inner part of these plots, cul-de-sacs and stairs are used. They have the same functions as the asphalt streets except for car access. Their usage increases the construction area in the site needed due to the population rise (Figure 4-left image). These streets, cul-de-sacs and stairs are working as an organic texture as a whole.

In terms of dwellings, the buildings` sizes become smaller while the slope increases (Figure 5). Because of the lack of place and topography, houses cannot enclose a public place like courtyards in the city centre. On the contrary, they create linear sequences and decreases the number of public places in the area.

On the urban scale, the settlement shows similar qualities with historic Turkish neighbourhoods. It has cul-de-sacs, private courtyards, and gardens. Also, it shows threshold characteristics between the mountain and the historic city centre.

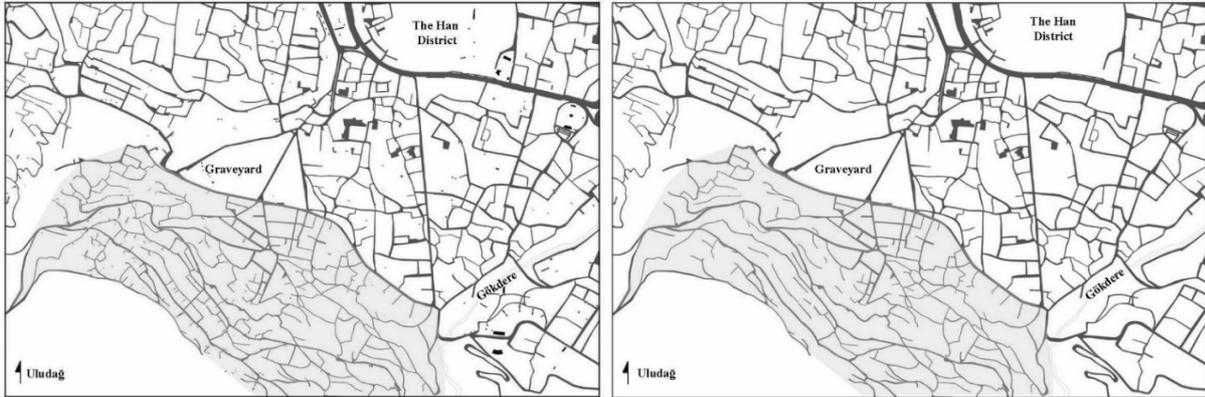


Figure 4. Street Layout Map with and without Stairs respectively (Source: Prepared by the author by taking the base drawing from Bursa Osmangazi Municipality)

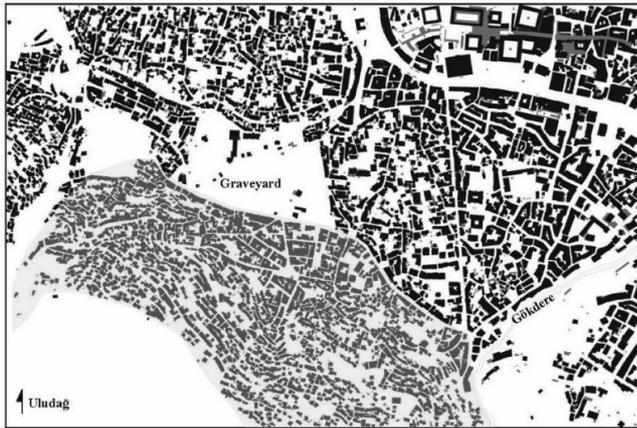


Figure 5. Solid-Void Map (Source: Prepared by the author by taking the base drawing from Bursa Osmangazi Municipality)

Architectural Attributes

The study area has a residential character even it has historic mosques and public bath structures. There are three types of residential structures in the neighbourhoods. The first one is historic timber-framed houses that are mostly used actively (Figure 6-left image). The second one is single storey squatters constructed after the 1950s (Figure 6-right image), and lastly, newly constructed concrete apartment blocks. This typological diversity is a clue for the historical stratification of the settlement. In addition, most of the dwellings show a lively appearance with their small gardens, balconies, and physical connections with the streets. It increases the sense of place, neighbour relations, and community engagement with the help of collective memory.

Narrow streets and long stairs increase the diversity of the built environment and work as a base for socio-spatial interactions between them (Figure 7). Especially, cul-de-sacs, narrow pedestrian ways, and stairs are used as semi-private open spaces, so the everyday life in the houses can be seen in these areas.

As a result of place attachment and sense of belonging, residents engage in agricultural activities at their private gardens and urban voids that are not used for topographical reasons (Figure 8). In terms of social sustainability, these factors play an essential role in the area.



Figure 6. Different housing typologies in the settlement (Source: Taken by İkbâl Berk)



Figure 7. Views from streets and stairs in the area (Source: Taken by İkbâl Berk)



Figure 8. Community gardens in the area (Source: Taken by İkbâl Berk)

Conclusions

...towns and buildings will not be able to become alive, unless they are made by all the people in society, and unless these people share a common pattern language, within which to make these buildings, and unless this common pattern language is alive itself. (Alexander et al., 1977, p. x)

Squatter settlements are very significant examples of self-organised territories and living architecture. As they represent local culture and residents' needs, they can provide critical inputs to the future regeneration of these areas. These inputs are related to *genius loci*, sense of place, collective memory, place attachment, and belonging. Therefore, their social sustainability can be an example of user-centred design by users. Transformative actions like destruction and reconstruction in such areas will not be a solution to this sustainable atmosphere. A comprehensive and participatory design process should be held to maintain these settlements with their values.

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