

Sustaining environmental qualities in middle-upper class residential areas: a pedagogic experience using Bagdat Avenue in Istanbul

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Abstract

Since Istanbul is located on an earthquake fault line, there are many neighbourhoods affected by urban development programmes which include the demolition and reconstruction of existing physical structures. One of these neighbourhoods subjected to a renovation process is located in the area surrounding Bagdat Avenue, one of the most exclusive districts of Istanbul, which has become increasingly attractive for developers and owners.

Within our design studio teaching, we have conducted a study about the sustainability of the urban development along Bagdat Avenue, with the purpose of preserving its distinctive features.

Keywords: environmental quality, middle-upper class housing, Bagdat Avenue.

1 Introduction

Istanbul has experienced a process of significant transformation over the last few decades. The city has very limited land reserves, and is dotted with a small number of empty and unused properties. Its built and natural environment, as well as its social structure, have undergone a drastic process of deterioration. Yet, some of its neighbourhoods have been resilient to the impacts of urbanisation. A prominent example is Bagdat Avenue and its close surroundings which include commercial and recreational equipment, dotted with exceptionally quite residential areas.

Urban development projects in Istanbul can be identified based on their characteristics such as location and investment potential, quality of housing stock and property ownership [1]. Bagdat Avenue and its surroundings are different



compared to other developed parts of Istanbul for three distinct reasons. First, it is a very popular location that attracts many developers. Second, the housing stock is old, but in a good condition. And lastly, property ownership is totally legal. Consequently, it is a subject of continuous urban transformation. Homeowners and developers use flat-for-land schemes to rebuild apartment buildings. While homeowners get new houses, developers make money by increasing the old and current flat area ratio coefficient.

However, this form of urban transformation tends to increase population density in an area. A key policy objective would be to create a reasonable densification and protect existing social and physical qualities. With this purpose, in a sixth semester studio at the Istanbul Technical University which took place in Spring 2016, we have carried out the study “Self-made Neighbourhood: Bagdat Avenue”. The theoretical framework was based on the notion of “self-made neighbourhood” derived from Ring’s “self-made city” [2].

Ring [2] states that the concept of the self-made city is based on self-made development; self-made projects and self-made qualities created along in the area of tension between freedom and need. “Self-made” is used to describe initiators (catalysts), players (stakeholders) and projects (designs and buildings) that foresee long term built interventions. Projects created in a self-initiative way portray positive effects that transcend the built context. Residents in self-made cities develop a sense of belonging that leads them to assume responsibilities for the neighbourhoods they live in, which benefits the whole community. Self-made projects regarding their concepts, financing, social make-up and their architectural and urban qualities demonstrate innovative and alternative solutions. The self-made city deliberately concentrates on sustainable projects that have long-term effects. A clear focus lies in the area of urban housing. The point is how self-made methods, strategies and architectural solutions are generating added value and how these assets can be preserved and promoted within urban development in the future [2].

In the design studio we explore how the “self-made qualities” that Ring identified in the “self-made neighbourhood” could be applied to the areas around Bagdat Avenue. While students focused on new urban lifestyles and genuine life scenarios, regarding present and future residents’ housing needs, they also discussed the challenges of preserving and sustaining both the physical and social characteristics of this unique area. Students developed an environmental analysis through field survey, individual observation, and literature review. They focused on design by research, and considered self-made qualities by experiencing and proposing different conceptual designs to discuss how to apply the self-made approach and how to create a self-made neighbourhood. In particular, students’ proposals were expected to address the following questions: How to improve the quality of life in the area? What are the expectations of residents with regard to housing? How to meet the housing needs of tomorrow? How to deal with the scarcity of public space?

2 A history of Bagdat Avenue

During the first half of the 20th century, the Kadiköy region became very a popular destination for the upper classes who wanted to spend the summer time in the Anatolian side of the city of Istanbul. After the arrival of the suburban train and the construction of the first Bosphours bridge in the 1970s, the summer resorts became permanent residences [4]. In addition, the Law of Property Ownership accelerated the construction of apartment buildings and increased population density along Bagdat Avenue and its nearby surroundings.



Figure 1: Location of Bagdat Avenue in Kadiköy, by student Gabrielle Wouters.



Figure 2: Grid street pattern in 2005 (left), building density in 1960 (middle) and in 2005 (right) in Bagdat Avenue and its close surroundings.

In 1960, city blocks were subdivided into smaller pieces, which resulted in an increase of the number of buildings and of the allowed height limit, which could reach up to five stories according to the building regulations [5].

The urban development of Istanbul has been driven by three main factors: the earthquake menace, the private investors, and the historical events [6]. Nowadays, there is a political will to let urban development be driven by private interests,

mainly real estate companies which operate at a global scale. As Keyider [7] has contended “land has finally become a commodity”.

The Anatolian side was a vast area of undeveloped land until it was connected to the European side of Istanbul with the bridges over the Bosphorus, built in the 1970s and 1980s. About 10 percent of the population commute daily over these bridges. Kadıköy was one of these unspoiled areas until the beginning of the 1990s. Due to the existence of old settlements built with traditional construction methods, Bagdat Avenue and its surroundings are considered earthquake risk zones. In addition, this area has high land values such that it is financially appealing to both residents and developers, who wanted to take advantage of the urban development process. Large retailers and department stores preferred prestigious and stand-alone buildings instead of ground floors in high-rise buildings. In this context, urban regeneration offered an opportunity to create new retail space on Bagdat Avenue [8]. While ground floors along the main avenue are occupied by cafés, restaurants and shops, upper floors are rented for commercial and public service purposes such as law firms and medical clinics. Landowners prefer commercial and office buildings because they generate more income.

According to TOKİ (Housing Development Administration) [9], there are several reasons to undertake urban development in Turkey, including: increasing urban standards, regenerating the national economy, reducing earthquake risks, sustaining the natural environment and the resources, and increasing the energy efficiency of buildings. All of these motivations are applicable to the urban transformation of Bagdat Avenue. However, in addition to designing new and more liveable environments, it is also important to preserve the historical, natural and architectural heritage of the city, including the maintenance of green and public spaces.

3 Distinctive physical characteristics of Bagdat Avenue

The population density of Bagdat Avenue and its close surroundings started to increase at the beginning of the 20th century. The density of the area has increased after the flat area rate changed from 1.8 in 1960 to 2.07 in 2005 [5]. Investors and homeowners have taken advantage of the increased density to build high-rise apartment blocks with underground parking. However, the most important issue to solve in the newly densified areas is the provision of sufficient green and public spaces.

Developers and landowners have negotiated the rebuilding of their properties applying the flat-for-land method using the current building coverage coefficient. Accordingly, the 2.07 coefficient is multiplied by the size of the lot in order to determine the gross floor area.

While the five-storey high limit along Bagdat Avenue has remained, in the surrounding areas certain deviations are allowed providing that the proportion between built and green areas is maintained (Figure 3). The existing green and open spaces are superior to those which can be found in other parts of the city. Bagdat Avenue itself is a promenade of 5.5 km lined with trees and wide sidewalks. There are also two large parks named Göztepe and Özgürlük which

need to be preserved. As a result of the urbanization process, underground parking has been built within the new buildings. This has caused a loss of soil and could have a negative impact in the environmental sustainability of the area.

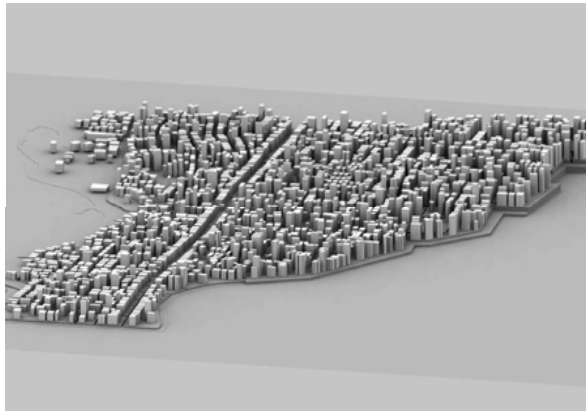


Figure 3: Constant building elevation along Bagdat Avenue and diversity in elevation of its close surroundings in 2005.

4 Distinctive social characteristics of Bagdat Avenue

Considering the demographic, education, health, economy, transport, environmental and social indicators, Kadiköy is a district with a high quality of life [10]. Bagdat Avenue is characterised by a mix of commercial, residential, and recreational areas, and is very popular as a public space for shopping, resting, drinking, eating, entertainment, and socialising. As a contrast, its nearby neighbourhoods are typical residential areas with quiet backstreets and small-scale businesses such as groceries, pharmacies and tailors. This duality of calmness and vivaciousness makes the area more attractive and gives it a unique atmosphere.

Bagdat Avenue hosts luxurious and high-end national and international brand stores making it an important shopping area. It is the heart of the retail activity and the longest shopping street on the Asian side of Istanbul. Although a majority of the stores are located on the ground floors of apartment buildings, stand-alone buildings offer alternative space for large retailers and are preferred by landlords.

One of the most important characteristics of the avenue and its surroundings is being close to the Marmara shoreline. Göztepe city park, wide sidewalks, restaurants, cafes and benches lie along Bagdat Avenue. In addition, walking trails, cycle paths, beaches, large green outdoor spaces with cafes and benches along the shoreline offer recreational opportunities. Bagdat Avenue facilitates socializing while walking, shopping and resting, and it provides a lively and liveable atmosphere.

The area has multiple modes of transportation, from a local train (currently being reconstructed), to buses and ferries. Bagdat Avenue is a linear hub for pedestrians and local trains, buses, minibuses and boat commuters.

Bagdat Avenue and its surrounding areas is made up of some of the oldest settlements in Istanbul where fourth and fifth generations of original residents still live [11]. In the Kadıköy region, residents are proud of their connection to the local community. Place attachment is substantially higher both in Kadıköy and Bagdat Avenue and in the close surroundings than in other parts of the city [5, 11].

While the avenue has developed into a commercial axis, the side streets are mostly residential. In recent years, some of the old structures have been demolished and replaced by new buildings which fulfil the seismic regulations.

5 Creating self-made neighbourhoods on Bagdat Avenue and adjacent areas

There is a prevailing scarcity of affordable housing and working spaces in these neighbourhoods. The high urban density makes new developments difficult. Homeowners, renters and shopkeepers are faced with economic challenges, especially in the inner city of the neighbourhoods.

ITU architectural students were asked to design projects to foster the creation of self-made neighbourhood in a specific part of the area along Bagdat Avenue. The goal of a self-made neighbourhood is to create a sustainable social and urban environment preserving existing qualities of the area [2]. Project areas selected were in Kiziltoprak, Feneryolu and Selamiçeşme neighbourhoods along Bagdat Avenue (Figure 4). These areas were comparatively less dynamic and exuberant, and more modest in terms of both their physical and social patterns.



Figure 4: Project sites (left) and neighbourhoods (right) along Bagdat Avenue.

In order to create a self-made city, Ring [2] has specified ten qualities to consider in the design process and later. These qualities are neighbourhood and urban interaction; shared space, community and social focus; long-term affordability; open and green spaces; re-use and re-activation; hybrid concepts; quality re-densification; custom-fit solutions for every generation; investment in ecological building; and future-oriented solutions and experimental models.

Regarding “neighbourhood and urban interaction”, self-made projects help in creating well-functioning neighbourhoods in which community participation is actively encouraged. Residents take part in the urbanisation process in order to be responsible for creating new possibilities in their neighbourhood. Unlike gated

communities, self-made projects support the close relationship between residents and the built environment.

In the project area, 36 questions were given to 43 participants in a face-to-face survey. Half of the respondents have lived in the area for more than 20 years and are highly attached to their neighbourhood because of good urban interaction, a social and safe environment, and good transportation. Residents were satisfied with living in this neighbourhood rather than in a gated community. To improve the quality of life in cities, design proposals should attempt to preserve the existing traditional street and block characteristics of the neighbourhood (Figure 4). Students proposed a way to meet local residents expectations and have good access between their neighbourhood and city (Figure 5).

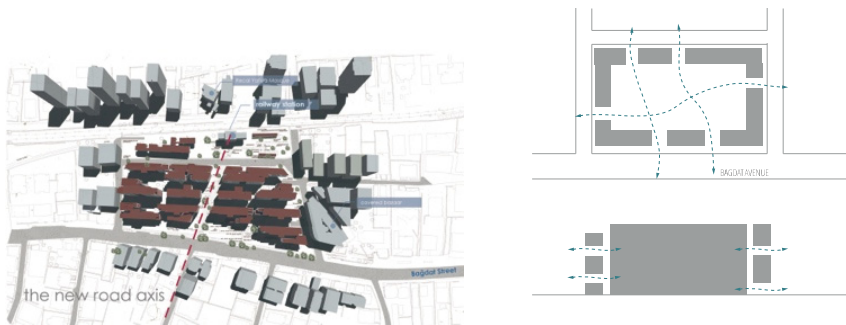


Figure 5: Neighbourhood design sample by student Handenur Yüksel (left), and porosity in neighbourhood, by student Gabrielle Wouters (right).

The creation of “shared space, community and social focus” would favor interaction among neighbours and social integration. Bagdat Avenue can work as a connecting space across neighbourhoods. To strengthen this capacity of the avenue to bring people together, it was proposed to create an enclosed garden adjacent to it (Figure 6).

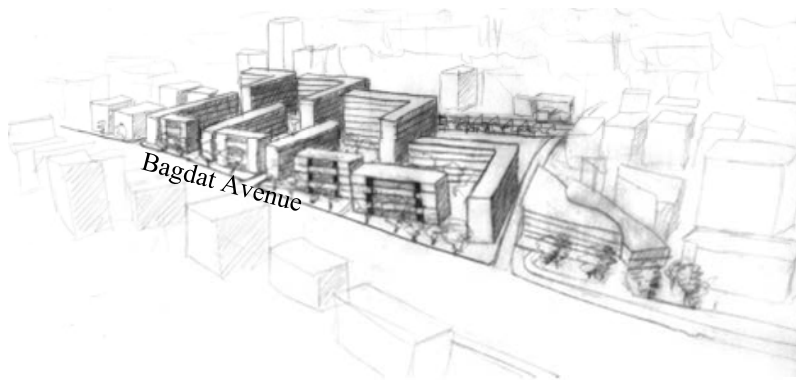


Figure 6: Enclosed garden along Bagdat Avenue, by student Emeline Brams.

“Long-term affordability” could lead to affordable living and working spaces in the long term. Housing affordability is an issue for both rental and property markets. Housing of various types were proposed to accommodate people of different income levels (Figure 7).

Creating satisfaction with abundant “open and green spaces” is crucial for a neighbourhood although developers tend to seek maximum space efficiency from investment land. According to the survey, 60 percent of the residents are not satisfied with the existing green areas, in spite of the two large nearby parks. Therefore, the students’ proposals aimed to increase the amount of green areas (Figure 8).

“Re-use and re-activation” conveys the renovation of existing structures, to give them new usages while preserving them for the community. With this purpose, the old unused tramline is transformed into a new bike path (Figure 9).

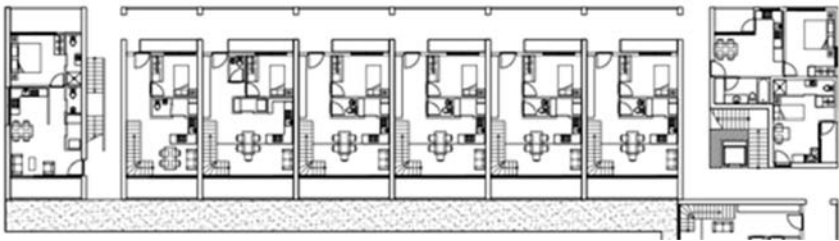


Figure 7: Housing types with various sizes, by student Emeline Brams.



Figure 8: Connecting exterior circulations to roof gardens, by student Gabrielle Wouters.

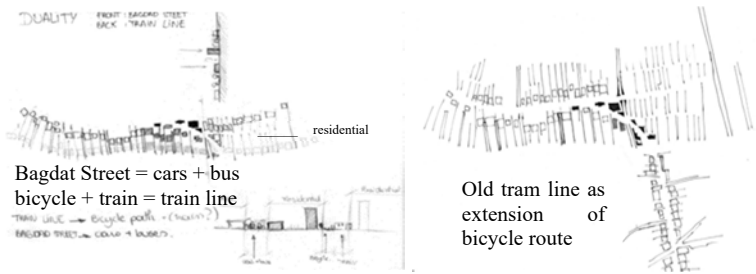


Figure 9: Reactivation of tramline as cycle lane, by student Emeline Brams.

Developing “hybrid concepts” includes buildings and other urban structures, housing and social activities. Mixed-used spaces such as living labs or workshops, shops and libraries, or green areas adjacent to residential buildings, can be developed with the active participation of the neighbours, as self-made developments which contribute to increase social awareness and sense of belonging.

“Quality re-densification” is a requirement for new buildings. On both sides of Bagdat Avenue, there are high-density residential areas, although the avenue itself is subject to the five-storey height limitation [12]. Vertical green spaces are proposed to achieve a high quality densification (Figure 11).



Figure 10: Mixed-use buildings, by student Irem Tikiz.

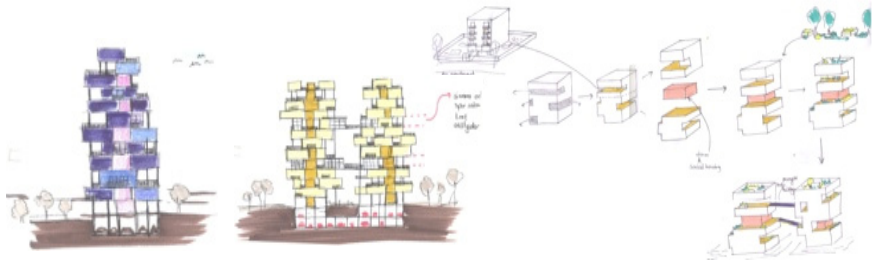


Figure 11: Vertical gardens for densification, by student Irem Nur Tat.

“Custom-fit solutions for every generation” means to provide housing which meets the requirements of present and future dwellers. Flexible layouts would facilitate the adaptation of housing to changing needs of dwellers. The proposal is to convert existing four-bedroom apartments into one- and two-bedroom flats with multifunctional spaces (Figure 12).

“Investment in ecological building” is essential to achieve sustainable self-made neighbourhoods. Green building helps to raise people’s awareness about the preservation of natural resources, and to educate them about energy efficiency in buildings. Agricultural lands, photovoltaic panels and surface parking under the buildings were some of the solutions proposed to preserve the soil and promote environmental sustainability (Figure 13).

“Future-oriented solutions and experimental models” encompass high quality low-cost building, innovative technologies and citizen participation. An active



Figure 12: Flexible plans and multi-functional spaces, by student Irem Nur Tat.

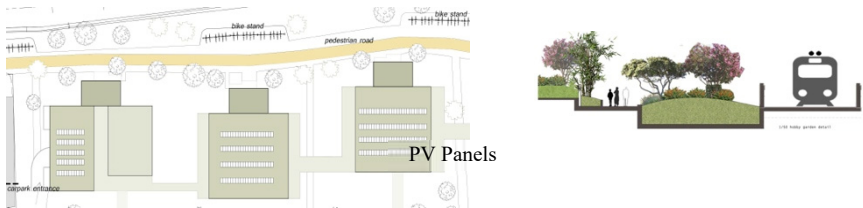


Figure 13: Photovoltaic panels for energy efficiency, by student Irem Tat (left) and agricultural lands along the railway, by student Ugur Kocak (right).

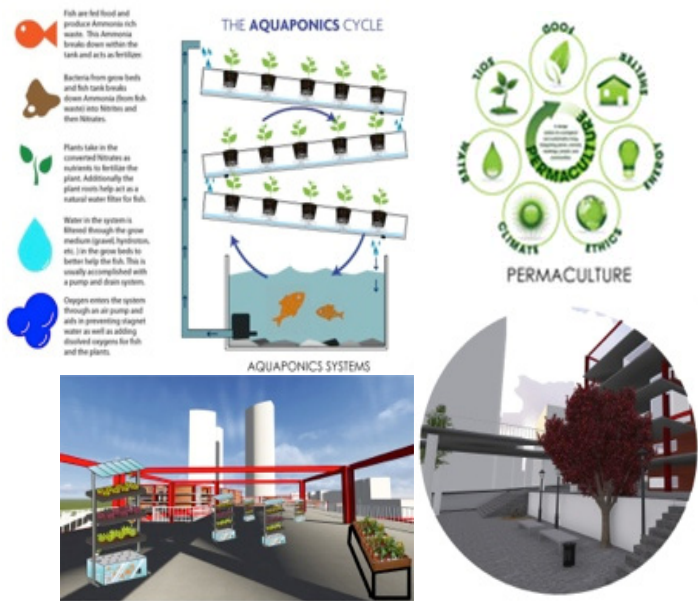


Figure 14: Permaculture and aquaponic systems, by student Aylin Ozcan.

involvement of stakeholders is expected in the development of this kind of actions. The proposed experimental actions include permaculture and aquaponic systems which facilitate the contact of people with nature (Figure 14).

In summary, a sustainable development of the areas around Bagdat Avenue can be tackled through the ten principles discussed above. For example, improving the quality of life can be achieved by combining working and living within the neighbourhood. Facilitating more public green spaces would enhance the quality of urban housing. The social and physical structure of a community should be preserved, as the collective memory is embedded in them [13]. Long-term affordability can be achieved through re-use and re-activation of existing structures, with custom-fit and ecological solutions which assure the environmental quality. Finally, a sensitively planned densification, with an appropriate mix of building and open spaces, can help to reinvigorate rundown abandoned areas.

6 Conclusion

Within a design studio, we have explored possible strategies to achieve a sustainable development of the neighbourhoods located on both sides of Bagdat Avenue, on the eastern side of Istanbul. The preservation of the existing physical and social environmental qualities is necessary because they represent the memory of the place. Some of the qualities (socialization, connectivity, mixed functionalities) of Bagdat Avenue are worth preserving. In addition, the residential character of the adjacent neighbourhoods should be kept. Facilitating young people access to affordable housing is fundamental to assure the vitality of the area in the long term. Tall buildings up to 15 floors can be allowed in the residential areas, but the five-storey limit in the avenue must be maintained. To compensate the effects of high-density building, the amount of green and open spaces should be increased and existing parks maintained.

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