

THE EFFECT OF URBAN GROWTH ON LAND-USE: A CASE STUDY OF BALIKESIR

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ABSTRACT

Burgess defines the urban growth as "the expansion radially from its central business district by a series of concentric circles", and he mentions that social, economic and geographical conditions are shaping these circular systems. In this context, although different dynamics and models exist between countries and regions, similar parameters are used for the morphological examination of the development of urban space.

In the scope of the research, Balıkesir was examined in detail through the urban growth process, land-use changes in the urban fringe. Differentiating urban pattern and peripheral land-use have been evaluated from the viewpoint of the Conzen. The findings were obtained through a comparative analysis of historical and current city maps, satellite images, archive records.

According to the analysis conducted in Balıkesir, it is seen that the geographical factors such as Çamlık Hill, Çay stream bed and the transportation strategies (railroads and highways) played an active role in shaping the city's macro form. Conzen, while examining the city of Alnwick, mentions urban fringes and peripheral land-uses, which includes functions such as industrial areas, institutions, community services, small houses etc. These kind of areas are thresholds of urban space and make the historical development of the city legible. Although it is not possible for a town like Balıkesir to contain all the morphological phenomena, it is observed that peripheral land-use of the town has changed with urban growth. Especially during the Republican period, the urbanization and industrialization policies implemented and increased the investments in the city, industrial buildings such as Cement and Cotton Weaving Factory and military areas were established in the large areas around the urban periphery. At that time, the urban cemetery in the southeast of the city was transformed into a recreational space. Balıkesir developed around the historic center until the 1950s, after that, new settlement areas were formed, and the city

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continued to grow in the north and southeast direction with the effect of increasing population. This situation made essential the change of functions in the urban fringe and necessitated the relocation of small-scale industrial buildings and some social services to outskirts of the current city. As a result of the study, land-uses in urban fringe should be seen as essential elements in the structure of city, planning policies should be established with the awareness of urban fringe, and function change decisions should be made through the understanding of quality urban space rather than economic concerns.

Keywords: Urban growth, urbanization, land-use change, urban fringe.

1. INTRODUCTION

Urbanization, in a narrow sense, is an expression of a situation in which the population of the city has increased, and the urban space has expanded physically, and life has gained heterogeneity. In this context, the factors that cause urbanization are classified through economic, technological, political, and socio-psychological reasons (Keleş, 2015). The urbanization rate in Turkey has increased with migration from village to city in the 1950s. In this period, the industrialization policies implemented by the state affected the macro form of many Anatolian cities. These dynamics formalized land use in urban space, and the distribution of new residential areas and industrial uses determined the growth direction of the city. In the urban area, which has a certain density, the land has become a scarce resource, and speculation about the city has been based on land use and exchange values (Kılıçarslan, 2018). Although the urban growth processes are examined with similar parameters, each city has an original value in terms of its historical, physical, spatial, and cultural characteristics.

Within the scope of the research, the city of Balıkesir was examined through the factors such as the geopolitical position of the city in the Southern Marmaras, urbanization policies put forward during the Republican Period, the structure that changed with the metropolitan law (Güney, 2018), the relationship between the city and the university. Afterwards, the morphological change of the city is detailed through the change of land uses and its relationship with the urban periphery.

Unlike the rising trend in metropolitan cities, Balıkesir has developed a single centered pattern for a long time. In the development process, the residential areas of the city were enlarged with the opening of the lands around the central business area. With the growth of the city, lands that once had the rural-urban character on the periphery became a part of the city. Some of the land-uses in this region such as; cemeteries, low-density residential areas, industrial zones,

institutional areas, etc. (Karaulan & Kubat, 2018, s. 306) have been relocated or intensified, while others have continued to function and created congestion in the city center. This situation led to the redefinition of the urban periphery in the rural and urban intersection as the city continued to develop. In this context, the transformation of Balıkesir city center was examined by making comparative analyzes on the plans of Ernst Egli (1944), 1987 Master Plan, and current (2019) land-use maps. The changes that took place in the periphery were elaborated in areas such as the conversion of the cemetery to the city park, the process of shaping the city of the corps, the opening of the factories in line with the policies of the 50s, the re-positioning of the bus stations and small industrial estates, which were repressed by the growth of the city after the 2000s.

2. CONTEXTUAL FRAMEWORK

2.1. Urban Growth and Land-Use Change

Predominant urban typologies examine the built environment as pre-industrial, industrial, and post-industrial, suggesting that each of these periods reveals both the physical space of the city and the dominant social and economic structure (Robson, 1973). Pre-industrial cities possess a compact and socio-economic structure without specialization. On the other hand, in industrial cities, there are developed modes of transportation between cities, large-scale factories, and an increase in the density and number of residential areas. In the post-industrial period, the boundaries of the industrial city become almost unrecognizable with the improvements in domestic transportation and, the gaps of early growth are tried to be filled (Robson, 1973). When explaining urban development, Whitehand (1994) mentions that "if a cross-section is taken from the center of the city to the periphery, it is the expression of the city's temporal journey".

Regarding this, Burgess (1925) conceptualizes the growth of the city through physical expansion, spread as a process, social organization, and mobility. In examining the Chicago, he models the urban development in a diagram which shows the expansion radially from its central business district by a series of concentric circles. Although this graph describes a development specific to American cities, it emphasizes the subsequence of urban sprawl (Burgess, 1925). Indeed, each city has its unique processes, and it is not possible for an organic pattern to same with another development process, but the parameters we use to examine urban growth and their spatial results are categorically similar. In this sense, the urbanization process in Turkey has started much later than in Europe and America, migrations, growth, and industrialization coinciding revealed locale-specific dynamics.

The growth of the city due to the increasing population brings with it the need for housing and urban equipment. So, development processes affect the way urban space is used, and change becomes essential. In this context, land uses vary depending on the construction activities, growth, housing production, changes in land prices, and various socio-economic factors in the city (Whitehand, 1994). This change in the city can manifest itself in the third dimension as well as through the differentiation of functions from inside to outside in the field plane. In these processes, some of the areas used as a residential zone in the city center transformed into commercial use. In previous periods, areas belonging to peripheral functions such as industrial buildings, storage facilities, and sports areas, which are located on the city periphery, start to be seen as urban areas, and this creates changes in land values (Kılıçarslan, 2018, p. 177).

2.2. Land-use in Urban Fringe

Smith (1936) describes the urban fringe as an area just outside the institutional boundaries of the city (as cited in Pryor, 1968). In this context, the urban fringe or periphery refers to the area where urban and rural separation becomes ambiguous. It is a complex transition zone and appears as an essential concept in terms of settlement geography. These areas, which are under the urbanization pressure, generally evolve from peripheral use to urban space. Commonly, land use in the urban fringe is transitive and independent from each other. Functions that require large areas, such as manufacturing workshops, commercial enterprises, vacant and unused land, and industries that need to be located outside the city, are located in these regions (Pryor, 1968, p. 209). Although land speculation may affect the exchange values of the region, such areas should be guided by the influence of zoning decisions and planning strategies. Even so, there are many different disciplinary studies on the land-use change and urban fringes in the literature; this research is based on the urban morphology and fringe belt approaches of the British school.

The term 'urban fringe belt' was first used by Herbert Louis (1936) when examining the wide land uses in urban fringe (as cited in Whitehand & Morton, 2004). In the literature on urban planning, the concept developed in the context of the British school is characterized by parameters such as land use, access, and vegetation (p. 276). These areas, defined by Herbert as "hiatus", differentiate in the context of urban patterns in the historical process and leave morphological traces that can be called 'fixation line' like the city walls. Afterward, Conzen elaborates the research on the fringe belts and uses the phrase 'a belt-like distribution of land-use unit, which for a reason seek peripheral location has appeared' and examines the city of Alnwick (Karaulan & Kubat, 2018, s. 305). He identifies the relatively

slowly developing belt areas on the urban periphery with functions such as industrial zones, community services, institutional uses (cultural, religious, administrative facilities, etc.) and garden-country houses (Conzen M. R., 1960, p. 58; Hazar & Kubat, 2015; Karaulan & Kubat, 2018; Kubat, 2019). In these areas, the parcels subject to ownership are more extensive, the construction density is low, the vegetative cover is wider (Whitehand & Morton, 2004; Conzen, Gu, & Whitehand, 2012).

These areas also, which acted as physical barriers in the growth process of the city, were examined by Conzen and Whitehand through the concept of fringe belt and categorized as inner, middle, outer, according to the historical period and fixation lines (Kubat, 2019). The general tendency in Europe is that inner fringe belts form morphological zones that begin on the borders of the medieval city or just outside the city walls. In Turkey, the historical process, urban pattern, and development process indicate different morphological characteristics compared to European cities (Ünlü and Baş, 2015). This situation necessitated a local reinterpretation of the assumptions regarding the inner-middle and outer fringe belts.

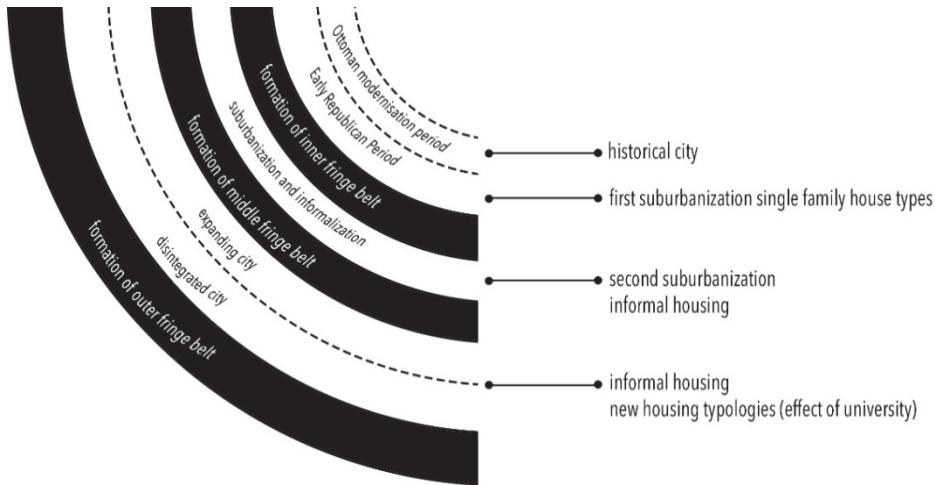


Figure 1: Morphological periods of cities in Turkey (Ünlü & Baş, 2015)

Considering the limited studies conducted in Turkey, urban fringe belts which defined as the threshold exhibits a more discontinuous and fragmented structure. According to Ünlü and Baş (2015), while the formation of the inner fringe belt is based on the historical city and early republican constructions, the suburban and informalized city constitutes the second threshold, thus forming the middle fringe belts (p. 20-21). Especially with the increase in institutional factors such as universities in Anatolian cities, new typologies started to emerge

with the need for housing and these settlements became prominent as a new morphological area in the urban growth pattern (Figure 1).

3. METHODOLOGY

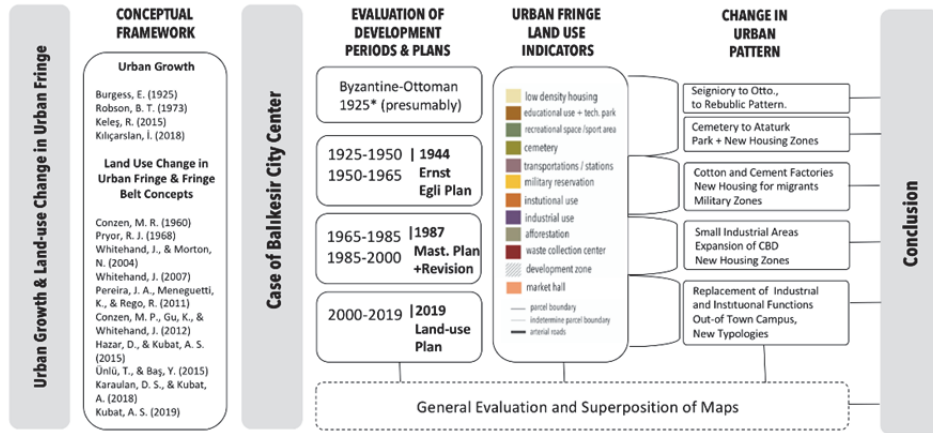


Figure 2: Methodology of the Research

Within the research scope, Karesi and Altieylül districts, known as Balıkesir city center, were evaluated. The study aims to determine the effect of urban growth of Balıkesir on land uses in the city periphery and the transformation of these functions over time. Thus, the development in the historical process was made spatially legible through comparative map analysis, and the existence of peripheral activities in future urban studies was emphasized.

In research, the land-use changes in urban fringe were focused on with reference to the development periods (1923-1950, 1950-1965, 1965-1985, 1985-2000, 2000-2019) stated by the local government in the plan report (Balıkesir Metropolitan Municipality, 2016). Changes in peripheral land are determined through 1944 Ernst Egli plan and research report, 1972 İller Bank development plan explanation report, 1987 Balıkesir master plan + revisions and land use map, 2016 Karesi-Altieylül 1/5000 master revision plan notes, 2019 land use maps and satellite photos of 2005-2019. According to the data obtained, how the growth of the city affects land use in urban fringe was evaluated through perception of Conzen and Whitehand in British School. The airport, urban parks, cemeteries, institutional lands, industrial areas, market halls, military areas and rural settlements (according to Conzen's Alnwick study) located on the urban periphery were identified according to historical periods. In this context, the land-use changes through urban growth (cemetery to urban park transformation, the formation of migrant neighbourhoods, the evolving of agricultural land into residential areas,

the transfer of industrial uses out of the city, the dynamics of the city changing with the university, etc.) are analyzed, mapped and interpreted (Figure 2).

4. URBAN GROWTH OF BALIKESIR CITY CENTER THROUGH LAND-USE CHANGE IN URBAN FRINGE

4.1. Urbanization Process of Balıkesir City Center

The city has an important geopolitical position in the South Marmara Region, which has an active role in transportation according to highways related Istanbul, Izmir, Bursa and sea access in Bandırma and Körfez. The most intense period of urbanization was between 1950-1965. The population growth rate of the city is below the national average. However, although the rate of increase has changed, the urban population has increased over the years, and the city has continued to grow physically (Tunga, 1997, p. 59-60). Geographical factors such as Çamlık Hill, Cay and Kasaplar Stream Beds play a role in the formation of the urban macro form. So, these factors affected the boundaries of the settlement and the city expanded into the lowland for a long time while preserving its single-centred structure. After all, in order to understand the socio-economic development of the city, it is necessary to elaborate on the historical context.

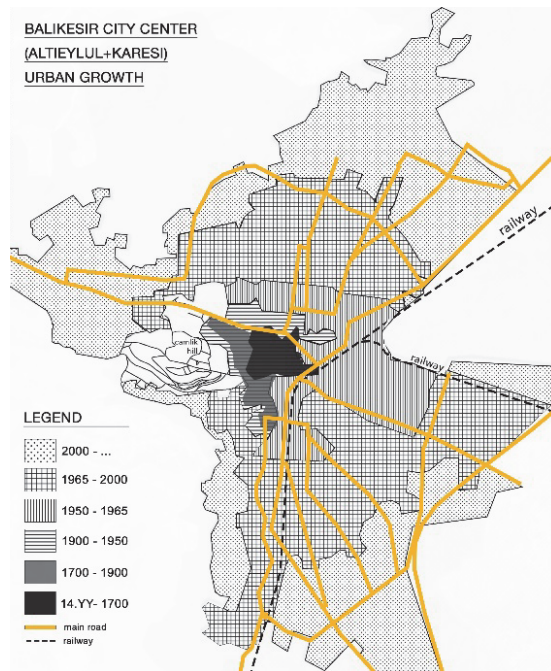


Figure 3: Urban Growth of Balıkesir City Center (Tunga, 1997; Balıkesir Metropolitan Municipality, 2016)

There are no traces of the ancient period in the city center, however, the existence of a small settlement surrounded by the Byzantine city walls is confirmed. The development of the town accelerated during the Seljuk period. Afterward, it was ruled by the Karesi Seignory and, later in the Ottoman Empire, was used as a princely sanjak. The first data about physical condition about town in written sources are found in the Ibn-Batuta travel book in 1333. In the book, it is mentioned about the settlements in the limited area and the existence of the big bazaar (Tunga, 1997; Güney, 2018). The buildings built by Zagnos Pasha in the 15th century (mosque, covered Turkish bazaar, hamam) shaped the functioning of the city. Although there was no significant change in the urban pattern in the 17th and 18th centuries, the military class began to lose its importance, and commercial activities increased (Tunga, 1997). In the 19th century, new dynamics emerged with the construction of the railroad (Güney, 2018). In the early 1900s, northward expansion was observed, and during the Republican period, settlements appeared in the north and southeast of the city. Immigrants arriving in the 1950s were placed in disconnected areas from the city center, and between 1950-80 the discrete areas and the gap between the main mass were largely filled (Tunga, 1997)(Figure 3).

The floors number of buildings was increased with the changes made in the 1987 plan. Some residential areas were replaced with commercial functions, and the sub-center deficiencies were mentioned in the plan report (Balıkesir Metropolitan Municipality, 2016). In the 2000s, the university was moved to out of town campus, the terminal located in the city center to the north of the city. The industrial areas around CBD were declared a renewal area and were repositioned away from the city center. As the city became a metropolitan municipality, the goal of 'branding' emerged in the city (Güney, 2018). In line with the vision plans, Camlık Hill, Cay Riverside Recreation Area, and various mass housing projects have been brought to the agenda.

4.2. Land-use Change in Urban Fringe Through City Plans

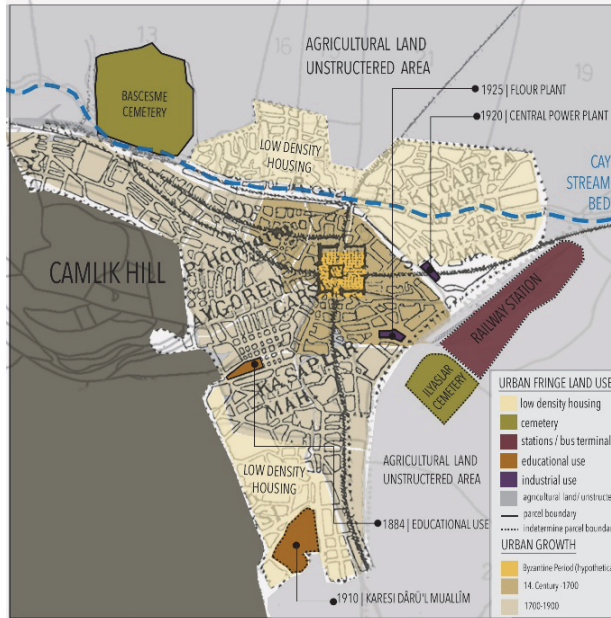


Figure 4: Byzantine- Ottoman Period to 1925 (It was produced by the author using maps taken from the archive within the scope of Tunga's thesis.)

Byzantine-Ottoman-1925 Periods

The first settlement of the city belonging to the Byzantine period is located within the borders of the Hisarici neighborhood, which is the city center today. In terms of building island in the square form in Hisarici is compared with Roman castrum in the plan report of Egli, and it has been suggested that this form is also connected to the Bergama-Edremit road axes (Tunga, 1997). In addition, there are a total of 27 archaeological sites, including 12 necropolis-ancient settlements, five castles, six tumuli, and three mounds in the suburbs of Altieylül and Karesi (Balıkesir Metropolitan Municipality, 2016). The settlements, which were established in the 14th century during the period of Karesi Seignior, were emerged on the hill slopes (200 mt), and the lowland was used for agricultural activities. Afterward, the area looks like a small town (15-20th century) with different neighborhood patterns (such as Hisarici, Yildirim, Karaoglan, Kaya Bey, Eski Kuyumcular, etc.) in the Ottoman period (EnsPD, 2016). The quality of being the only commercial center of Anafartalar Street decreased with the opening of the railway and train station in 1912. The main axis (Milli Kuvvetler Street) connecting the city to the train station was started to be used in 1916 (Balıkesir Metropolitan Municipality, 2016; Tunga, 1997). There was a shift towards the

train station in the city center. In this period, Karesi Darül Muallim Mektebi (1910), central electric unit (1920), and Muharrem Hasbi Flour Factory (1925) were built on the urban periphery (Figure 4).

1925-1950 Period

Republican policies have shaped today's urban space. The city's development plan was made by Ernst Egli in 1941-1944 (approval) and remained in effect until 1955. According to Egli's plan, growth was aimed in the north and east directions; minimum intervention was made to CBD, new development areas were created outskirts (Balıkesir Metropolitan Municipality, 2016). The new government building (1947) and the Forestry Directorate are located near the station. The area between Çay stream bed and the central electric unit is reserved for small industrial and manufacturing workshops. The area used as the İlyaslar Cemetery was converted into Atatürk Park between 1934 and 1942 (Yüksekli). In the period of 1940-1960, development movements in the city gained speed in line with the policies of the Republican era (Figure 5). Urban equipment such as Halkevi, Ali Hikmet Pasha Stadium, maternity center, art schools, cinemas were built in that time (Bırol, 2004). Military clubs, which are designated as registered buildings, have been built, and the city has become a corps center (Güney et al. 2009; EnsPD, 2016). The areas to the south of the railway are considered as worker housing zone due to the low land costs. The development areas in the north and east stated in the plan are specified (Tunga, 1997). As a result of these, the city started to lose its rural character.

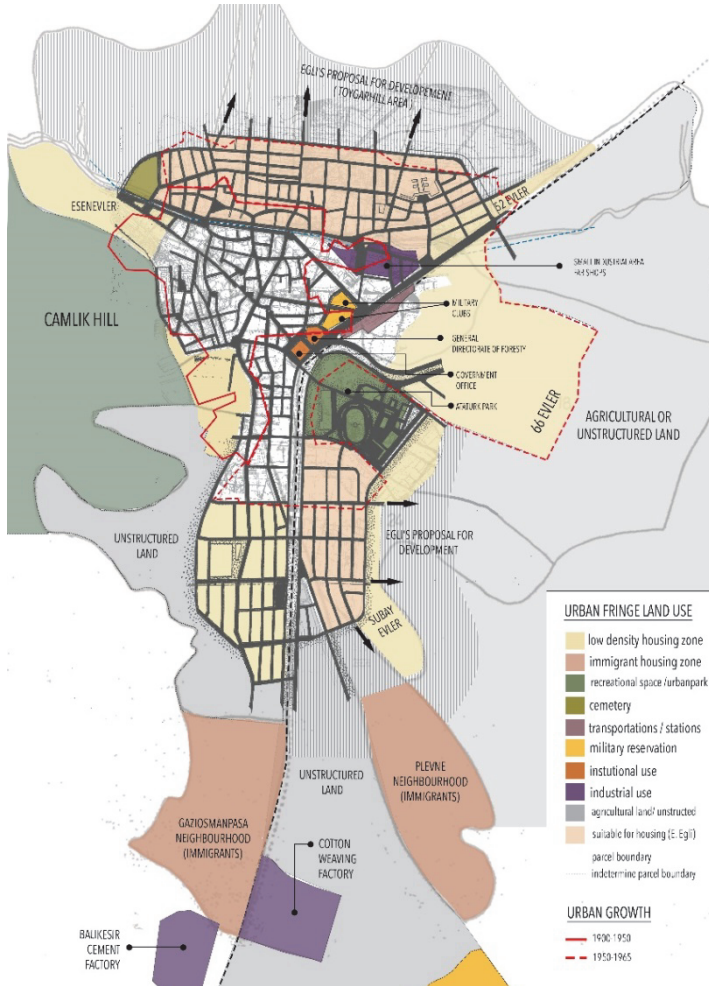


Figure 5: 1925- 1965 Urban Fringe Land-use (It was produced by authors through 1939 city map and the plan of 1944 Ernst Egli)

1950-1965 Period

Compatibly with the policies in the '50s, the industry was an essential factor in the development of the city, and the city has shown a single-centered development (Güney et al. 2009). However, immigrants who came to the city between 1955-59 were placed in Gaziosmanpaşa and Plevne neighborhoods away from the city center. This situation interrupted the integrity of the macro form within a certain period. As stated in the plans of Egli, construction permits have been given to the lands in north and south. Housing productions have been realized by building cooperatives (EnSPD, 2016). In 1950, the city had a great fire. After that, settlements with two-story garden housing typologies such as 52 evler, 66 evler,

Subayevler, Esenevler were formed (Biol, 2004). Today, almost all of these houses are apartmentized. In the continuation of the process, the city was developed in the east and southeast direction with the effect of the railway and highways. As the growth continued, the gaps in the fragmented urban fabric were filled (Balıkesir Metropolitan Municipality, 2016) (Figure 5). When the land uses in the urban fringe of the period are examined, the government office, Muharrem Hasbi Flour Factory, forestry headquarters, military clubs, which used to located in the urban periphery in the early period, are stuck in the city center of today.

1965-1985 Period

The master plan, which could not provide the requirements of the city, was revised in 1963, and the next development plan was prepared by Iller Bank and entered into force in 1972. This plan was also revised again in 1974, and the lands on Bursa road were functioned as a small industrial site. Commercial functions in the city after the 60s were mostly located on Anafartalar, Milli Kuvvetler Street, Gazi Boulevard, and Vasıf Cınar Avenue. At the end of the 60s, squatting was observed in Tepebaşı, Maltepe, Dinkçiler, Plevne, Gümüşçeşme, and Gündoğan neighborhoods (Tunga, 1997). Within the scope of the plan, it was decided to concentrate the CBD in the traditional pattern and it is revealed that the density should decrease as we go towards the urban periphery. This resulted in the transformation of residential areas in the city center to commercial activities and an increase in floors in buildings (EnsPD, 2016). However, this change was considerably restricted by the cooperative's housing production (Balıkesir Metropolitan Municipality, 2016). Exceptionally, the supply of low-priced lands to cooperatives in order to prevent slum formation contributed to the formation of the Adnan Menderes District (Güney, 2018). It has been decided that the institutional uses (DSI, KGM, etc.), which are located around to CBD, will continue to function and the small industrial area will be moved to the recommended organized industrial zones, so industrial activities are clustered in two different locations (Tunga, 1997).

1985-2000 Period

One of the essential activities regarding the period is the preparation of the city's development plan in 1987 (Balıkesir Metropolitan Municipality, 2016). Five revision zones have been defined in this plan, which is still effected urban space today. According to plan and reports; it is aimed to transform the residences into commercial use in Orucgazi, Cay, and Vicdaniye neighborhoods, the number of floors was increased to four throughout the Atatürk and Hasan Bahri Çantay neighborhood, it is aimed to rearrange the parcels in Gümüşçeşme, Gündoğan, and Atatürk neighborhoods by reducing them to the optimal size and Gazios-

manpaşa neighborhood, which was included in the plan as an industrial zone, was decided to be used as a residential area (Tunga, 1997).

Other issues dealing with the city in the 1987 plan are the lack of sub-centers and the industrial areas on Kepsut street. Although sub-center deficiency has been tried to be overcome with the focus of commercial institutions, success has not been achieved, and industrial areas were reconsidered within the scope of the strategic action plan in the 2000s. Apart from these, the central airport (1998), which was put into service in peripheral land, was closed to civil flights after three years of use and was transformed into a military airport.

When the land uses are analyzed in the 1987 Master Plan, the urban fringe is surrounded by military uses, industrial, institutional uses, and low-density residential fabric (including villages). The new development areas of the city are predominantly determined in the north, and military land and industrial areas constitute a barrier to the development of the city in the south (Figure 6).

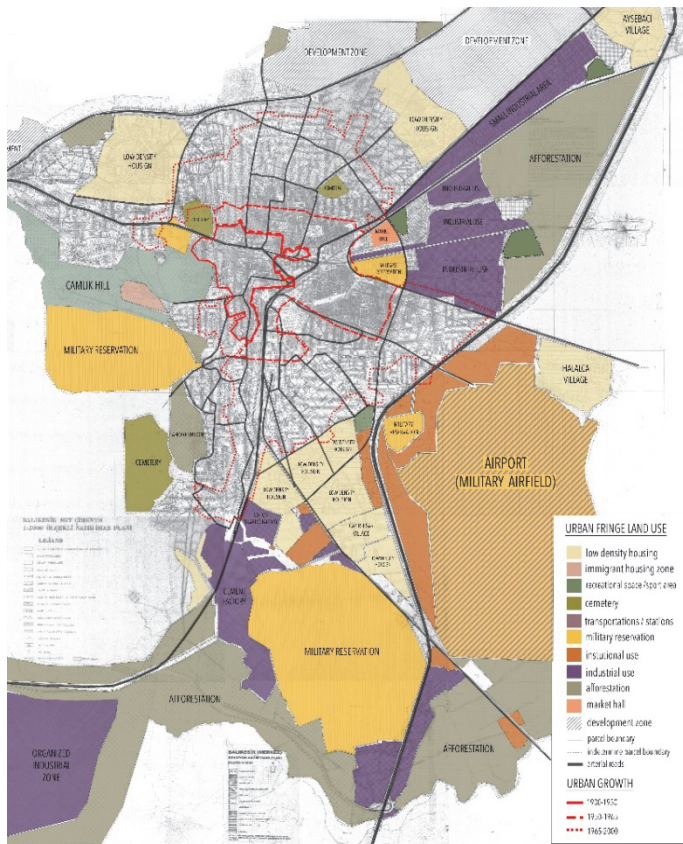


Figure 6: Balikesir 1985-2000 Urban Fringe Land-use (It was produced by the authors through 1987 master plan taken from the municipal archive.)

2000-2019 Period

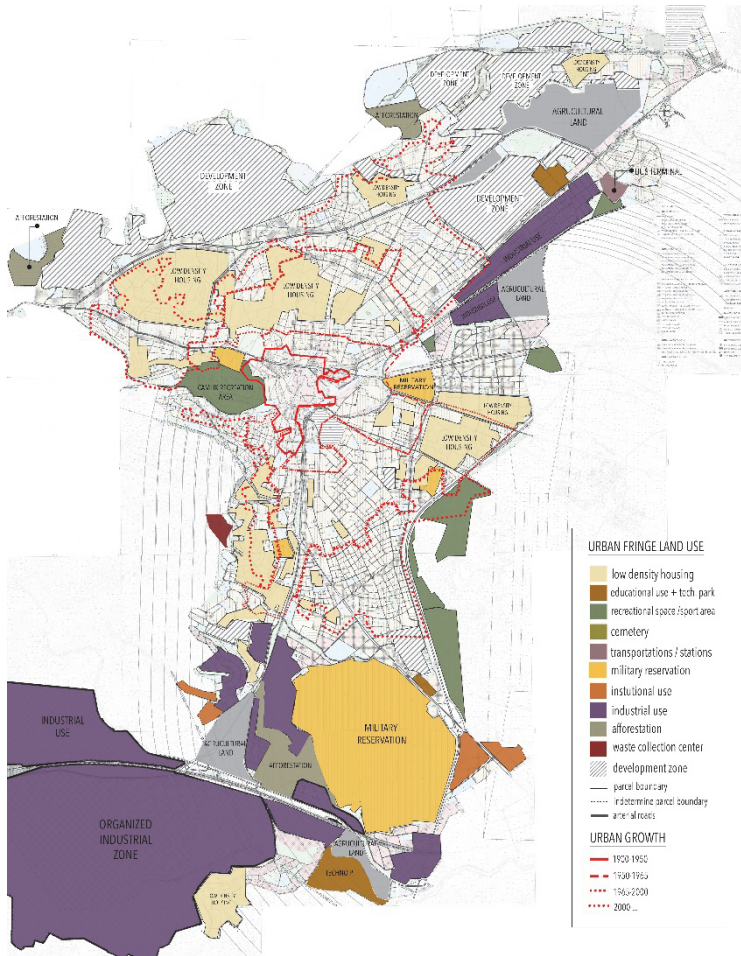


Figure 7: Balıkesir 2000-2019 Urban Fringe Land-use (It was produced by the authors through 2019 land-use map taken from the Balıkesir Municipality.)

There have been many internal and external factors that changed urban dynamics after 2000. Some of the events that cause changes in urban space use can be listed as follows.

In 2002, the university, which was scattered in the city center, moved to Çağış Campus. This situation led to an increase in the density of residential areas towards Çayırhisar in the south of the city. Accordingly, Bahçelievler neighborhood is one of the exemplary areas (EnsPD, 2016). With the transfer of the bus station in the city center to Ayşebacı Village in 2006, the city showed a tendency to develop in the north-northeast direction. With the shopping center opened in the direction

of Pasaalan, an increase in commercial functions in the north direction was observed, and the area started to be a potential sub-center (Güney, 2018).

Within the scope of the 2014-2023 South Marmara Development Plan, Balıkesir was decided as a sub-center planning region and many mega projects related to the city were proposed (Balıkesir Metropolitan Municipality, 2015). With the enactment of Law No. 6360, Balıkesir was chosen as one of the cities that were decided to establish a metropolitan municipality, which changed the way the city was governed. Projects such as Camlık Hill Recreation Area Project and Camlık Mosque, Cay Riverside Recreation Area Project and Balıkesir Fair Area were produced with the effort of creating a local center and 'brand city'. Although the relationship and necessity of these projects with the city can be questioned, it is seen that some projects are formed by the transformation of peripheral land uses. For example, while Çamlık Hill is a passive green area, it is aimed to be transformed into a recreational area, but instead, a complex building block with a library, science center, museum, religious, and social support units were built. Another example, Çay Deresi Recreation Area, was an industrial area with building materials industries in the surroundings. There was a wholesale market hall on the land, where the Avlu Balıkesir is located currently. Although small buildings in the area still working, for now, it is aimed to transform this entire region.

When the urban fringe land uses in the period 2000-2019 (Figure 7) are analyzed, essential similarities are seen with the period 1985-2000. This situation can be interpreted as an indication that the city has reached the construction limit in the south. On the other hand, around the city center, it is seen that the various land uses are changed and tried to be integrated into the city, although their contents can be discussed through the projects mentioned above.

4.3 Evaluations of Land-use Change in Urban Fringe

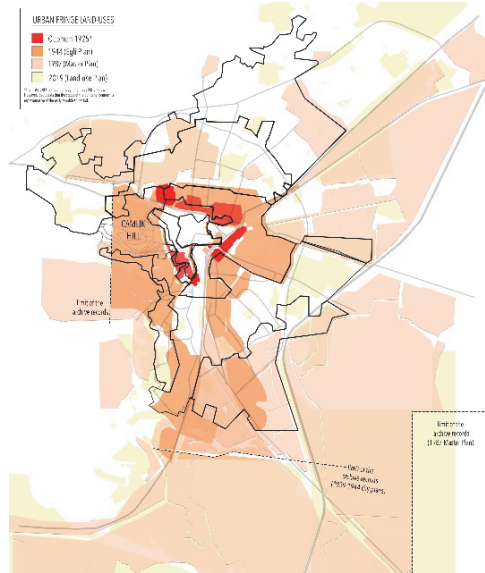


Figure 8: Superposition of Urban Fringe Land-use Through Periods

When urban fringe land-use of the city are examined, it is seen that the development of the urban periphery has progressed in parallel with the urban growth pattern (Figure 8). In this context, the main elements limiting the urban development in Balıkesir, besides geographical factors such as Çamlık Hill, extensive military lands, organized industrial zones, small industrial sites, and institutional uses.

When the created periodic maps are compared, the following can be said about the urban fringe. The areas that functioned as agricultural or unstructured in the early Republican and pre-era periods are used as the middle and high-density living areas of the current city and have lost their peripheral character. A similar situation exists for other development periods (1925-1950, 1950-65, 1965-1985, 1985-2000) of the city. In the 2000s, it is seen that some of the peripheral lands were moved or changed functions in order to reduce congestion in the city center and increase public use. (Transformation from the industrial area to the Çay Recreation Area, moving the Intercity Bus Terminal to Aysebaci, etc.). In the context of the urban landscape, it is crucial to reveal such areas because the continuation of urban growth without being aware of the urban fringe belts leads to the loss of the potential green areas and resulted uncontrolled and unqualified expansion. Therefore, increasing the awareness of land use of urban fringes and translation these into green areas by using these fringe belts will make the city's growth pattern healthier. In this regard, when the areas that

contain peripheral land-use in specific periods in Balıkesir and their current status are examined, the results are as follows (Table 1).

Table 1: Comparison of Urban Fringe Land-use in Development Periods and Current Status of The Lands

	Year of Built	Building/ Area	Land-use Character	Current Situation	Change in Building /Area	Explanation
Ottoman – Early Republican- 1925 Urban Fringe Land-uses	1910	Karesi Darü'l Muallim	Educational Use	In urban center	Modification to Balıkesir Uni. Faculty of Education	Although the structure has been used by different educational institutions over the years, it has continued to educational function.
	1912	Railway + Station	Transportation (Railway)	In urban center	Continuation of the function	The station led the formation of the new center of the city.
	1920	Central Power Unit	Industrial Use	In urban center	Transformation to art center (FB alienation)	Today, the power plant is used as a culture and art center. (Salih Tozan Culture and Art Center)
	1925	Muharrem Hasbi Flour Factory	Industrial Use	In urban center	Abandoned Building	Although the factory structure is centrally located in the city, it has been dysfunctional for a long time.
	-	Ilyaslar Cemetery	Cemetery	In urban center	Translation to Ataturk Park (1937-1942) (FB character)	The cemetery, which was converted into a urban park between 1937-42, became an essential node for the city with the opening of the stadium in 1953.
1925-1965 Period Urban Fringe Land-uses	1937	Government Office	Institutional Use	In urban center	Continuation of the function	The government office triggered the shift of the city center from Anafartalar street to Milli Kuvvetler and accelerated the settlement in this part of the city.
	-	Military Clubs	Military Reservation	In urban center	Continuation of the function	The buildings located opposite the station structure damage public uses of the city center cause of the limited population is allowed to access it.

	1950-1965	52 Evler, Esenevler, 66 Evler, Subay Evler	Low Density Housing (Cooperativ.)	In housing zone	Modification to medium-high density residential area	These are examples of the development period of the urban built environment through cooperatives.
	1950-1960	Gaziosmanpaşa-Plevne Neighb.	Low Density Housing - Immigrants	In housing zone	Continuation of the function	These are the residential areas built for migrants and separated from the city at the time they were built.
	1955	Cotton Weaving Factory	Industrial Use	In urban fringe	Abandoned Building	It is one of the factories built on the urban periphery in line with industrialization policies. It closes in 1986. It goes into reproduction (2001) and reproduction is stopped again (2003).
	1955	Cement Factory	Industrial Use	In urban fringe	Continuation of the function	It is one of the factories built on the urban periphery in line with industrialization policies. (12 th cement factory in Turkey)
	-	Military Maint.. School	Military Reservation	In urban fringe	Continuation of the function	Area used as a military school.
	-	Akıncılar Small Industrial Zone	Industrial Use	In urban center	Translation to Mechanic Services	The area used for industrial and manufacture has now turned into a collapsed space in the city center. Although speculative transformation projects have been introduced in the field but not implemented yet.
1985-2019 Period Urban Fringe Land-uses	-	Wholesale Markethall	Markethall	In urban center	Transformation to Commercial Zone (AVM) (FB alienation)	The market hall in the area has become a commercial function as stated in the strategic action plan. Although the first phase has been opened yet, there are discourses that other industrial structures in the vicinity will be moved.

	1998	Airport	Military Reservation	In urban fringe	Translation to military airport. (FB character)	The airport, which was closed for civilian use in 2001, was designated as a military area in the 1987 master plan.
	-	Plevne, BahçelievlerP aşaalani, Kuvai Milliye etc.	Low Density Housing	In urban fringe	Modification to medium-high density residential zone	With the growth of the city, the density of housing areas increased.
	-	*Çayırhisar, Halalca, Ayşebacı Villages etc.	Low Density Housing	In urban fringe	Continuation of the function	*In accordance with Law no. 6360, the villages received the status of the neighborhood, but no changes were made to the current situation.

5. CONCLUSION

So ever the integration of fringe belt studies into planning has been discussed; its importance in implementation projects is not yet understood. However, in recent years, these areas have shown great interest in the field of urban morphology. It is clear that, although not immediately apparent on-site, when development processes are mapped and examined, land uses in urban fringe are an essential element in the internal structure of cities. These areas, which have a significant effect on shaping the macro form in the development processes of cities, were also examined by geographers (Whitehand, 2007).

Like all urban areas, fringe belts come with their identities as a result of many interactions and changes. These areas carry clues about urban growth, directing new development areas of the city because the areas undergo transformations integrated with the development stages of the city and have spatial magnitudes that will affect urban use. When the projects carried out in urban environments and the related literature is examined, it can be seen that fringe belt studies are developed by emphasizing small-scale cities or particular areas containing original regions or structures (Pereira, Meneguetti, & Rego, 2011) In this study, which was carried out in line with this understanding, the transformation of Balıkesir city center was investigated on land-use change in urban fringe through Conzen's perspective.

As can be seen in the comparisons made within the scope of the study, many of the areas that peripheral usages have turned into areas in the city center today (1925-50, 1960-85 periods). Over time, urban uses and density have increased, new residential areas have been built. This situation has caused congestion in the

city center and after 2000's the areas that lost their peripheral character onwards started to change function.

Although there are successful applications in the city, such as Atatürk park, which have turned into active green areas, these examples are very limited in number. However, many of the low-density residential areas are concentrated. Institutional uses with limited access in the city center continued to function. In this case, large lands (military clubs, lodgings, DSI, KGM, etc.) located in the city center have created restrictions on public use.

Land uses in urban fringe should be seen as threshold areas representing the growth of the city, planning policies should be established with the awareness of these fringe belts, and function change decisions in the city should be made through the understanding of quality urban space rather than economic concerns. The potentials of these areas surrounding the urban space are quite high. The use of these areas as an active/passive green area instead of being reconstructed or concentrated will add quality to the built environment by creating spatial welfare.

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