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Urban Growth in Ankara: Planning and Policy Tools For Controlling Growth at the Urban Fringe

Ankara'da Kentsel Büyüme: Kent Çeperinde Büyümenin Kontrolüne Yönelik Planlama ve Politika Araçları

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ABSTRACT

Uncontrolled and unplanned growth of cities causes urban sprawl, leading to various ecological and socio-economic problems such as increasing energy consumption, infrastructure and transportation requirements and stress on ecosystems. The negative results of political, economic and social factors causing uncontrolled and unplanned growth impacts mostly on life at the urban fringe. The cities in Türkiye have been also influenced from these factors, nevertheless, there are only a limited number of studies examining the tensions at the fringe arising from uncontrolled growth. This article aims to identify the rationales behind urban growth process and the implementations of planning and policy instruments for growth control in Ankara, the capital of Türkiye. This research contributes at both theoretical and practical levels, investigating the realized and unrealized policies and planning tools for growth control, reveals the need for more effective planning and policy instruments, with emphasis on the change in fringe. One of the important results of the research is that many strategies and tools have been produced for the control of urban growth since the 19th century up until the present day in Ankara. However, although the growth control strategies have been proposed in urban plans of Ankara as expropriation, greenbelt, creation of a boundary for the settlement, separating the settlement into districts, increasing building densities in city, decentralization, growth along the corridors, encouraging mixed-use development and integrated urban form strategy, the research reveals that the tensions at the fringe have increased particularly after the 1980s due to the marked-led and partial planning implementations.

Keywords: Ankara; Türkiye; urban fringe; urban growth; urban growth control.

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ÖZ

Kentlerin kontrolsüz ve plansız büyümesi kentsel yayılmaya neden olmakta ve kontrolsüz yayılma, enerji tüketiminin artması, altyapı ve ulaşım gereksinimlerinin fazlalaşması, ekosistemler üzerinde baskı oluşması gibi ekolojik ve sosyo-ekonomik sorunlara yol açmaktadır. Kontrolsüz ve plansız büyümeye yol açan politik, ekonomik ve sosyal faktörlerin olumsuz sonuçları ise ağırlıklı kent çeperlerindeki yaşamı etkilemektedir. Türkiye'de birçok kent bu faktörlerden etkilenmesine rağmen, kent çeperinde kontrolsüz büyümeden kaynaklanan gerilimleri inceleyen sınırlı sayıda çalışma bulunmaktadır. Bu makale, Türkiye'nin başkenti Ankara'da yaşanan kentsel büyüme sürecinin ve büyümenin kontrolü için uygulanan planlama ve politika araçlarının arkasında yer alan gerekçeleri tanımlamayı amaçlamaktadır. Araştırma, büyümenin kontrolü konusunda gerçekleşen ve gerçekleştirilmeyen politikalar ile planlama araçlarını tartışarak bu çerçevede teorik ve pratik düzeyde katkıda bulunmaktadır. Kent çeperindeki değişime vurgu yaparak, kentsel büyümeyi kontrol etmek için daha etkili planlama ve politika araçlarına ihtiyaç olduğunu belirtmektedir. Makalenin önemli sonuçlarından biri, Ankara'da 19.yüzyıldan günümüze kadar büyümenin kontrolüne ilişkin birçok strateji ve araç geliştirildiğidir. Ancak, Ankara kenti için oluşturulan mekânsal planlarda büyümenin kontrolüne dair kamulaştırma, yeşil kuşak, yerleşme sınırı belirleme, yerleşimi bölgelere ayırma, kentsel yoğunluğu artırma, desantralizasyon, koridorlar üzerinde büyüme, karma kullanımın teşvik edilmesi ve entegre kent formu stratejileri önerilmesine rağmen, araştırma özellikle 1980'lerden sonra artan piyasa odaklı ve parçacı planlama uygulamalarının kent çeperindeki gerilimleri arttırdığını ortaya koymaktadır.

Anahtar sözcükler: Ankara; Türkiye; kent çeperi; kentsel büyüme; kentsel büyümenin kontrolü.

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Introduction

Fringe areas, which have a strong interaction with the city, have been directly affected by the changes in demographic, economic, environmental and political dynamics (Saxena, 2010). Although there is no clear-cut assignation of the boundaries of the fringe due to its flexible structure, the fringe is interpreted as a phase rather than a place, being “dynamic, heterogeneous, fragmented and ecologically fragile zone” of transition between urban and rural land-uses where changes occur on a continual basis (Nagy, 1999; Heimlich and Anderson, 2001; Yang et al., 2020; Lyu et al., 2022). The fringe is depicted as a phase rather than a place and contains different urban and rural land-use activities. Major land-use categories in the fringe are (Heimlich and Anderson 2001; Zhou et al., 2020; Ünlü, 2020); waste management facilities (ex-mineral sites, redundant sites or buildings), recreational land-uses (canals, regional parks etc.), transport infrastructure (orbital and arterial roads, railways etc.), conservation sites (historical, archaeological places etc.), energy production and distribution, industrial premises, commercial development (service functions, light industrial areas etc.), housing (low-density residential developments, increasing unit sizes and decreasing values), farming and forestry. Population densities in the fringe are higher than their surrounding rural areas but lower than their urban counterparts. The fringe areas are helpful in identification of development periods of cities throughout their historico-geographical development and outward growth (Ünlü, 2020).

Rapid growth increases high demand for various uses and developments especially in fringe areas so it becomes difficult to draw a line between the city and the towns surrounding it (European Environment Agency, 2006). Within the land resource competition caused by rapid growth, the urban fringe, which has low land costs and environmental advantages, is stated as the main battlefield of urban expansion (Yang et al., 2020; Sui and Lu 2021). Even if growth is needed for cities, it is not always easy to control this growth and prevent it from turning into sprawl. Sprawling of cities is criticized for that it increases energy consumption and automobile dependency, causes the loss of prime agricultural and environmentally significant lands, inaccessibility of infrastructure and superstructure services in a homogeneous way by the residents and imposes stress on ecosystems (European Environment Agency, 2006; Cengiz et al., 2022).

Increasing the role of market forces and market driven urban development came onto the scene after challenging realities related to uncontrolled growth, and the commercial housing market caused an explosion of growth after the

1980s in many countries (Wang et al., 2014). The lack of effective governance structures for the management of cities and the inadequacy in urban planning tools also increase the need for more effective and comprehensive instruments for the control of growth. Literature on growth control indicates that “the performances of growth control strategies depend on the growth policies of governments, urban plans, market forces, and marketization trends”, and “successful growth control depends on the reduction of urban sprawl, the predictability of the development process, the protection of agricultural land, environmental resources and the more cost-effective provision of public services” (Nelson and Dawkins, 2004; Johnson, 2008; Zhao et al., 2009; Nyarko and Adugyamfi, 2012; Owusu 2013; Wang et al., 2014). Growth control evolved into more than just “a reactive instrument” for managing the effects of growth, becoming part of “a proactive and strategic tool” in the planning processes of the 2000s. Growth control strategies evolved from managing growth effectively to generate a more livable future and this is grounded in the concepts of quality of life, ecological sustainability, social, environmental, and economic wellbeing (Yıldırım, 2008; Johnson, 2008).

Türkiye is a country that has faced challenges related to rapid growth and has tried to overcome the unexpected results of urban sprawl. The growth of cities and the effects of sprawl have been influenced also by changes in the economic structure, political regimes, legislation and administration in different periods. At the beginning of 1980s, rather than industrial investments, capital started to be invested into the built environment in major cities as part of the liberal economic program to integrate Turkish economy into the system of global capitalism (Yıldırım, 2008, 63). The number of new laws and planning directives increased significantly starting from the 1980s, however the conflict between the authorities and the definition of responsibilities in the legislative regulations increased the sprawl, and created less controlled areas at the fringe. The plan production and implementation processes have also become more partial, with authority confusion, partial plans and amendments, and the lack of land and housing policies during the 1980s being major drivers of uncontrolled urban growth in Türkiye (Ersoy, 1997; Çalışkan, 2004, 175; Yıldırım, 2008, 69; Özler, 2012; Balaban, 2012, 34; Ersoy, 2013). The period after the 1980s became a turning point in terms of the growth of cities, although the current policy and planning instruments do not seem sufficient to control adequately the growth of cities, meaning that more effective growth control tools are needed.

Ankara, the capital of Türkiye, has experienced significant tensions at its fringe, and many planning tools as expropriation, greenbelt, creation of a boundary for the settlement,

separating the settlement into districts, increasing building densities in city, decentralization, growth along the corridors, encouraging mixed-use development and integrated urban form strategy have been developed and implemented for the control of urban growth since the first plans prepared for the city. Although urban planning was a crucial tool in bringing about comprehensive change and the creation of a new lifestyle after the city was selected as the capital, the city came to be affected by many political and economic aspects, and sprawled towards the fringe. This article aims to elaborate upon urban growth, and the available planning and policy instruments to control growth at the urban fringe in Ankara. The research questions were determined as “how have the characteristics of the fringe area changed over time” and “how was the fringe controlled in different planning periods” to examine the process of urban growth and the applied policy instruments for controlling growth within the planning history of Ankara.

Method

The main research methods used in this research are document analysis, in-depth interviews and also field work for the recent period of Ankara. The qualitatively research technique is used in the article, with the research methodology being the case study approach. A large number of documents are examined and organized to clarify the characteristics of the fringe in Ankara from the 16th century to the 21st century. Several maps, plans, plan notes, reports and photographs are obtained from the archives of the Faculty of Architecture of Middle East Technical University, Ankara Metropolitan Municipality, the Chamber of City Planners, the Chamber of Architects and Vehbi Koç Ankara Araştırmaları Merkezi (Vekam). After the document analysis phase, structured and spontaneous questions are asked to the interviewees. The interviews are conducted beginning with open-ended questions with the aim of understanding the reasons for change and tension at Ankara's fringe, and especially to obtain recommendations for the control of growth. The interviews were conducted between February and December 2015, while the narrative data on Ankara were obtained from planning experts involved in the planning process in Ankara, either academically or practically. The interviewees included an urban planner and professor who served in the Ankara Metropolitan Planning Bureau between 1970 and 1982; an urban planner and professor who is an expert in physical planning and urban design, and participated the planning of Ankara in the 1980s; an urban planner and professor who is an expert in urban politics and design policies; an urban planner who is a part-time instructor and works for non-governmental organizations and the head of Chamber of City Planners between the years of 2015–2020.

The History of the Spatial Urban Growth and Growth Control in Ankara

Urban development process in Ankara is elaborated in a historical manner with particular emphasis on its fringe, i.e. how the urban fringe has been characterized in different planning periods. It aims to identify the growth control strategies of different plans for the city, and evaluates whether these strategies were performed effectively, while seeking to identify any influential factors in their implementation. From this point of view, the fringe area of Ankara can be described in five periods. The first period, which begins in the 16th century and lasts until the early 20th century, refers to an era prior to any urban planning efforts. The following periods, meanwhile, are identified with reference to different planning experiences, strategies and policy tools for the control of growth, as well as legal arrangements and implementation processes: The period prior to urban plans: Vineyards, gardens and agricultural fields at the fringe, The early planning period (1924–1957): Expropriation, new city beyond natural thresholds and greenbelt policy, Yücel-Uybadin Plan (1957–1977): Concentration in the topographic bowl, Ankara Metropolitan Plan 1990 and partial plans (1977–2006): Decentralization policy and growth along the corridors, Ankara 2023 Master Plan (2006 onwards): Large-scale partial plans and urban transformation projects at the fringe.

The period prior to urban plans: Vineyards, gardens and agricultural fields at the fringe

A wide variety of civilizations have settled in Ankara in its thousand-year history. The 16th century was an important period for Ankara due to its developed market economy based on agricultural production and husbandry. During this period, Ankara was a second-level province (*sanjak*) in Anatolia, and the city saw a broad range of ethnically diverse cultures. In the 17th century, Ankara continued to exist as a center of manufacturing and trade, confined within the Citadel walls. The Bendderesi creek and Altındağ hill were thresholds to the north and north-east, which created a valley. The city walls and Bendderesi were major boundaries of the settlement. The residential area was in the Citadel, in the Hisar district and adjacent area around the Citadel while the fringe comprised agricultural lands, hills and cemeteries. The demolition of the 300-year-old outer walls of the Citadel and the arrival of the railway to the city led the growth towards the plain in the 1890s. Consequently, the walls were no longer the boundary of the city, although Bendderesi and Altındağ Hill continued to be the limits to the north.

New land-use patterns emerged at the fringe in this period, such as the Bosnian neighborhood in the east, the railroad

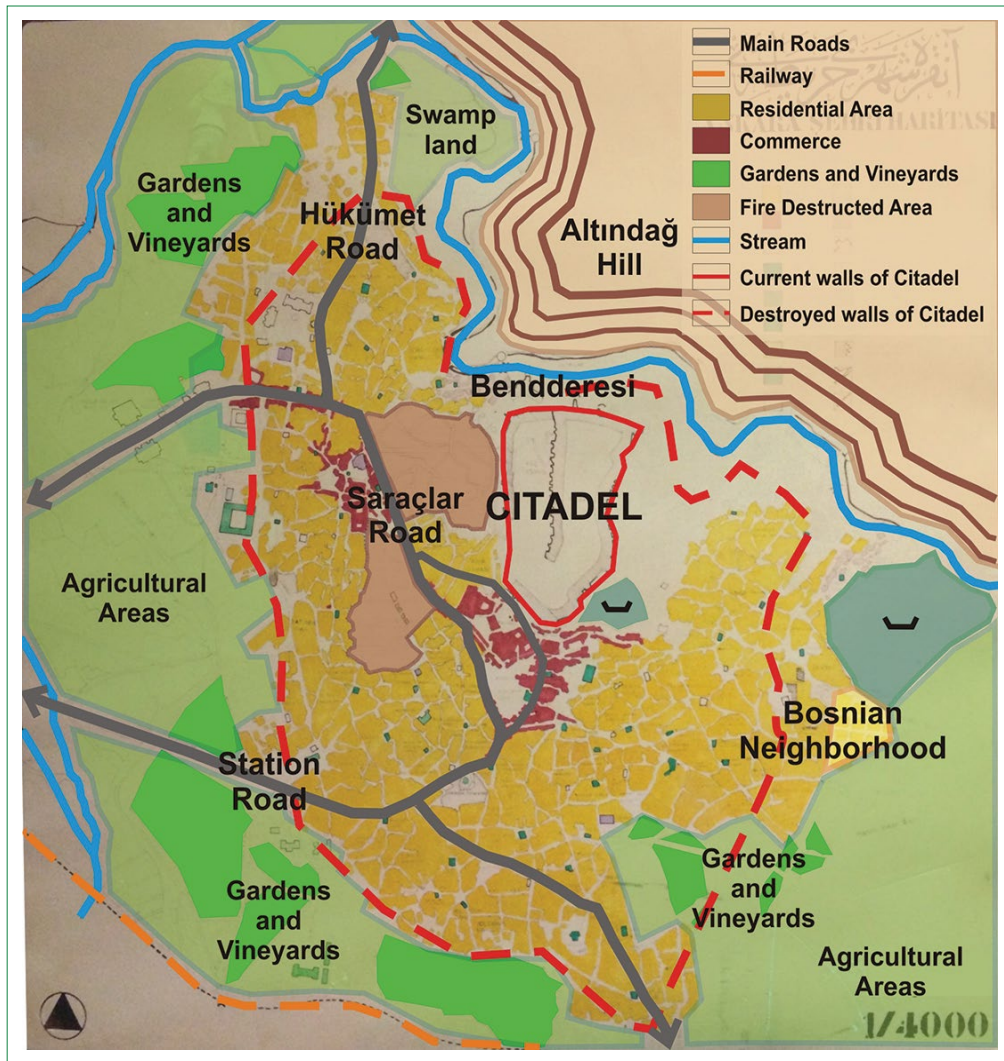


Figure 1. Settlement and fringe of the city at the beginning of the 1900s (schema drawn by author over the 1924 Şehremaneti Map).

district and almost 2,000 vineyard houses in Dikmen, Çankaya, Keçiören and Etlık (Şenyapılı, 1985, 11). The vineyard houses were also used for production, bringing a new source of income to families, who produced cereals, fruit and vegetables as the commercial product (Aktüre, 2001). The fringe area comprised the Bendderesi, swamp lands and Altındağ Hill to the north, agricultural areas, the gardens and vineyards on the northern, south-eastern and southern sides of city at the beginning of the 1900s (Fig. 1).

The year 1923 was significant for the political and spatial structure of city. The founders of the Republic chose Ankara as the capital of the new Republic, given its equidistance in terms of transportation and communication from all parts of the country. The primary concern of the first planning efforts was to produce a new and exemplary physical environment related to a new lifestyle.

The early planning period (1924–1957): Expropriation, new city beyond natural thresholds and greenbelt policy

After Ankara had been selected as the capital city, Ankara Şehremaneti defined the city with the Şehremaneti Law as the area including vineyards, gardens, agricultural fields and pastures within the limits of the surrounding hills. This boundary was determined on a 1/4000-scale Şehremaneti map and the first urban planning attempts came to the agenda. The first plan was prepared by German planner Carl Christoph Lörcher in 1924 and displayed Garden City characteristics, featuring low density housing with gardens and a grid street system, and the Citadel was considered a focal point. Two-story houses and narrow streets were planned for the old city, and a new administration area was proposed in Çankaya. A year after the Lörcher plan, the Municipal Expropriation

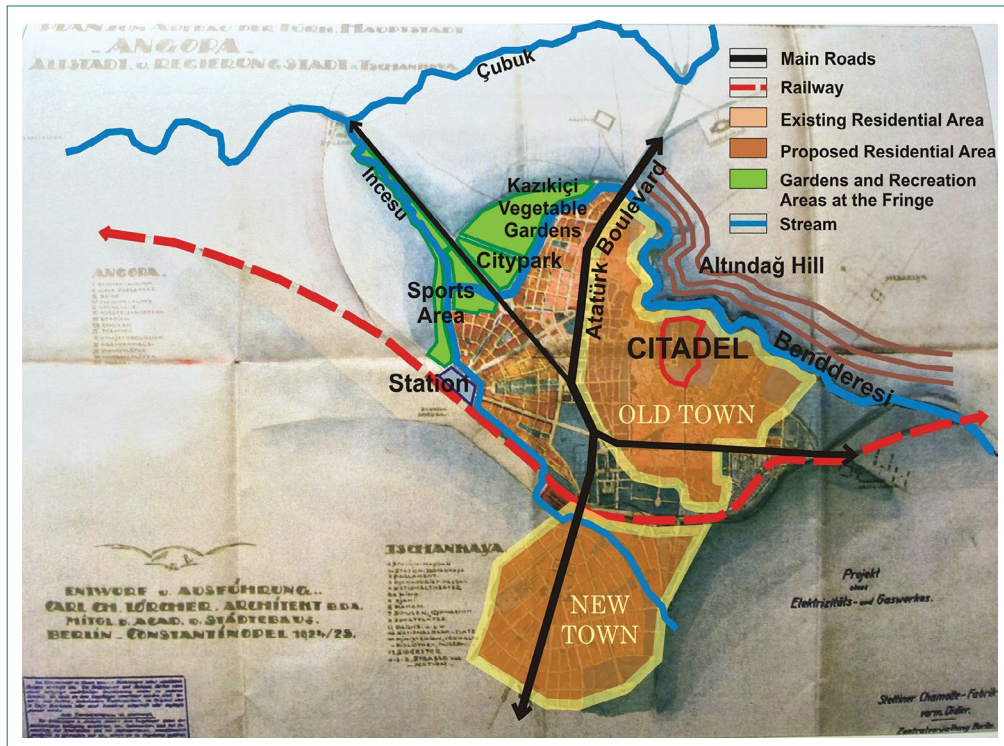


Figure 2. Thresholds and plan decisions at the fringe in the Lörcher Plan (schema drawn by author over the Lörcher Plan).

Law was enacted and 400 hectares of vacant land to the south of the railway was expropriated by government for the future extension of a “new town” (Fig. 2).

Although Bendederesi and Altındağ Hill at the north-east of the city continued to be the thresholds of city, İncesu stream no longer formed the northwest and southern boundary of the city after Kazıkıçı vegetable gardens, sports grounds and a city park were proposed beyond the stream. The railway also lost its status as a threshold. Some of the agricultural lands of the previous periods were opened to development. The vineyard houses at the fringe (Fig. 3) played an important role in meeting the housing demand and turned into permanent residences, unlike in previous period.

Despite the Lörcher plan was criticized for being a timid attempt at the creation of a new town (Tankut 1993, 59), the plan served as a guide for subsequent plans with its design principles. Towards the end of the 1920s a planning competition was organized by the Ankara Urban Development Council to find a solution to the increasing land speculation, to address the housing shortage and to create a modern capital for the new Republic. The plan of Hermann Jansen was selected for its recommendations. Following the Lörcher Plan, 1928 Jansen Plan also defined the main routes as the north-south Boulevard and the east-west axis of city. He used the existing green spaces and the banks of the stream, proposing a green structure that comprised

natural features, green corridors, allotment gardens and sports fields at the fringe. Locating the airport at fringe was considered one of the most important decisions of plan. Although the plan was not exactly an implementation plan, many of the roads were planned and buildings constructed based on competition project. The characteristics of fringe area changed partially at the end of the 1920s. There were still vegetable gardens and vineyards at the closest places on the northern side of the city. The villages close to city were engaged in agricultural production.

Jansen’s implementation plan was approved in 1932. According to plan (1937, 11), the creation of a greenbelt was main strategy to prevent urban sprawl, provide opportunities for recreation and flood control. The recreation areas and gardens at the fringe were major components of green structure. Bendederesi and Altındağ Hill to the north-east remained as thresholds, and a labour neighborhood was created between Kazıkıçı vegetable gardens and Çubuk Stream. The airport to the west, the transmitter station to the north and the College to the southeast were the restrictive elements at the fringe (Fig. 4).

To keep construction within the planning border a Construction Border Plan was prepared by Jansen and the city was divided into two, being internal and external expanding areas. The internal areas were relatively expensive and between the newly formed Bahçelievler and Cebeci, the vine-

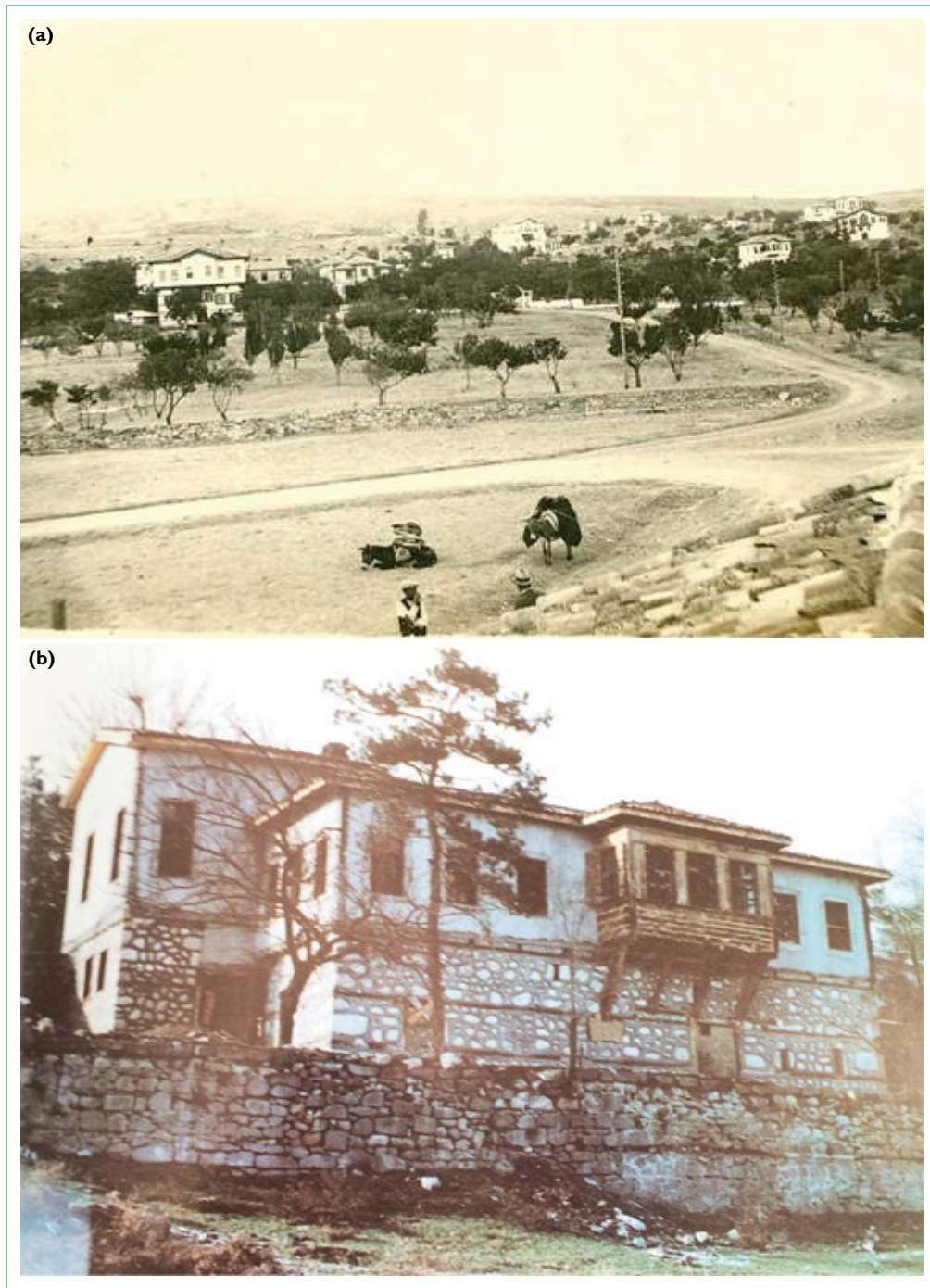


Figure 3. (a) Vineyards in Keçiören (Vekam Archive, 2015, 2451). (b) Vineyard in Etlik (Oraman, 1937).

yards in Keçiören, Etlik, Mamak and Dikmen. The external expansion area was between the New City and Çankaya (Jansen, 1937, 41). Although these strategies were supposed to prevent sprawl, most of them failed in this regard. The construction of new town increased land speculation and pressure towards the vineyards. Cengizkan (2002, 131) refers that the immigrants could not afford to purchase the existing houses, illegally developed settlement areas began

to spring up at the fringe. Altındağ Hill was the first area to witness this trend, and the city began to sprawl beyond the limits of Jansen Plan on the east side. The major problems faced were a lack of readiness of the administrators for unexpected growth, the disregarding of the illegal constructions, the expanding of the existing borders into unauthorized areas and the absence of a land-use map (Tankut, 1993, 159; Şenyel, 2006, 82; Tekeli et al., 1986, 56). The

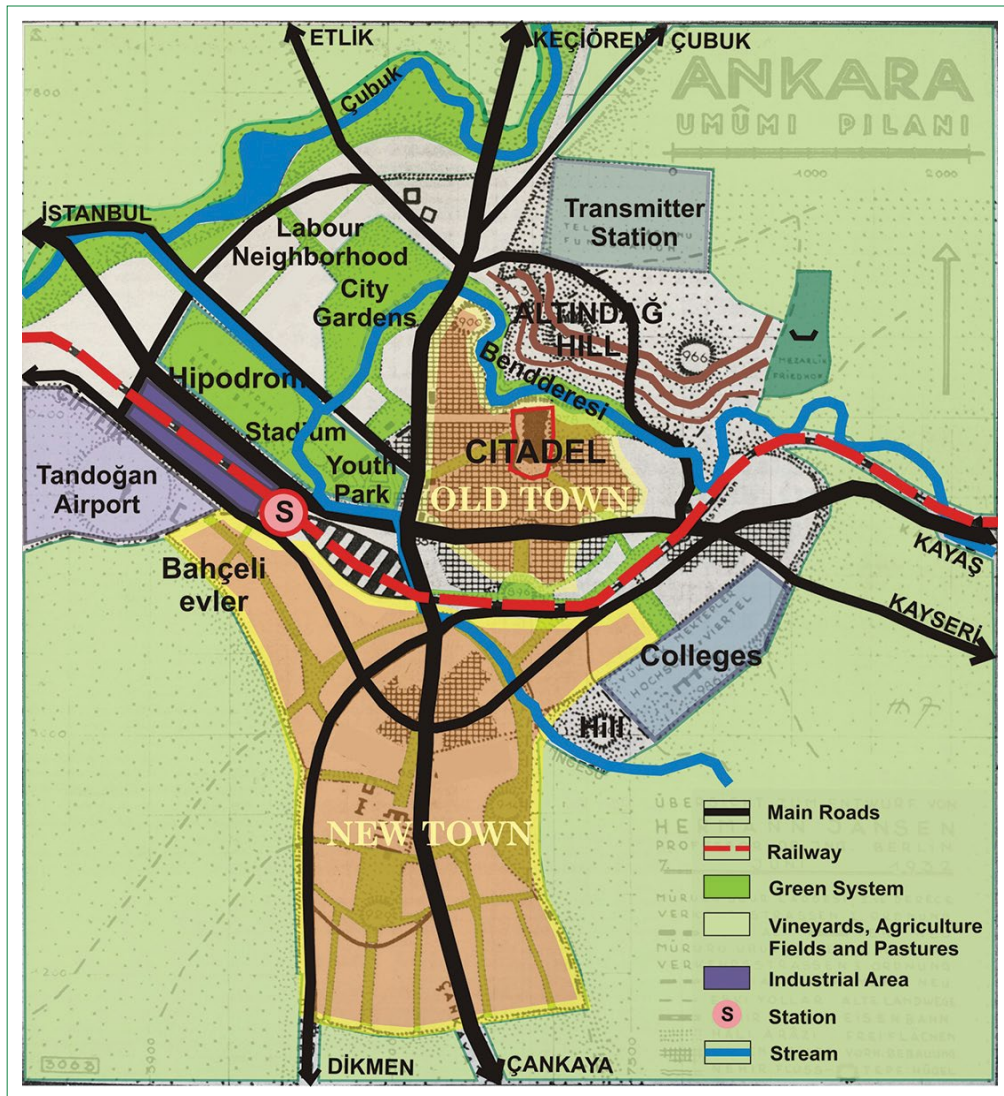


Figure 4. Thresholds and land-uses at the fringe in the 1932 Jansen Plan (schema drawn by author over the 1932 Jansen Plan).

implementation of Jansen Plan continued between 1932 and 1938, however a holistic and integrative framework proposed in the plan for the existing settlements and fringe area could not be realized.

The 1940s were endured under the threat of war and many economic and social problems. Nevertheless, Ankara was growing faster than the average rate of urbanization in Türkiye. The population living in urban areas can be segregated into three different socio-spatial profiles in the 1940s (Şenyapılı, 1985; Büyükyıldız, 2008); the ethnically different citizens (Muslims, Armenians, Jews and Greeks) who live inside the Citadel walls and in the neighborhoods surrounding the Citadel; the national bourgeoisie and civil servants who came from other provinces, lived in the New Town and would go to the fringe area for recreation-

al purposes in general; the people living in unplanned and unauthorized settlements at the fringe. Under the impact of the migrated population, the growth area expanded beyond the limits of plan and Çubuk stream was no longer a boundary at the northwest of city. The illegal construction accelerated to the edges of İncesu, Akköprü and Altındağ. Ergir (2004) explains that many migrants even lived illegally in single-room dwellings in the Kazıkıçı vegetable gardens (Fig. 5).

The characteristics of fringe changed with infrastructure such as the airport, faculties, military use, cemeteries etc. and illegal settlements becoming fringe components, in addition to the gardens, vineyards and agricultural areas. The municipality sold off parts of the expropriated lands, reducing public control of lands at the fringe. Despite the

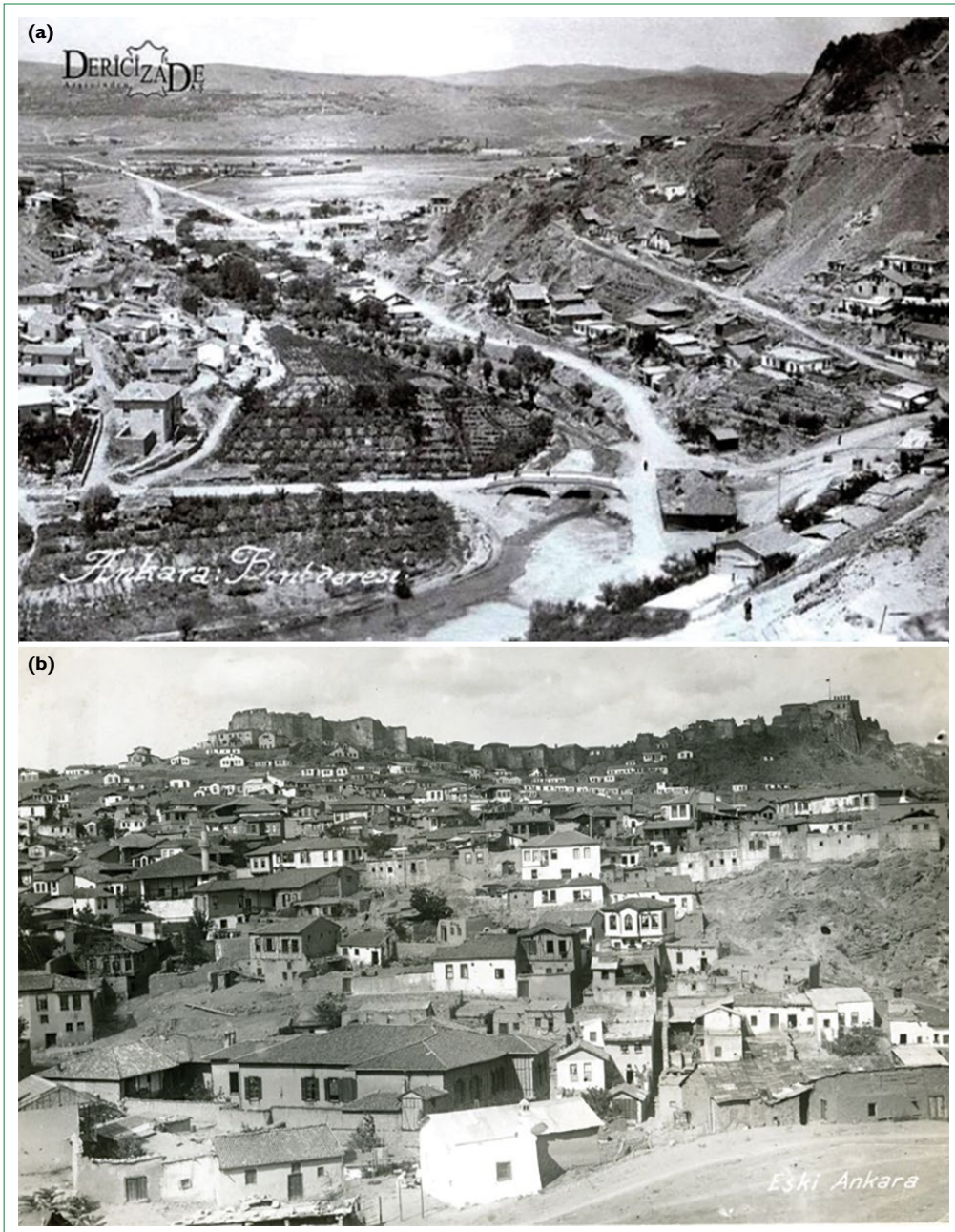


Figure 5. (a) Kazıkçı Vegetable Gardens (Dericizade Photograph Archive, 2016). (b) Unauthorized settlements of Altındağ in the early 1940s (Vekam Archive, 2015, 1514).

specific regulations Atatürk Forest Farm continued to be fragmented.

Yücel-Uybadin Plan (1957–1977): Concentration in the topographic bowl

The 1950s are considered to be a breaking point in terms of urbanization in Türkiye. Political and economic changes brought considerable transformations to the urban sphere in the post-war years, with mass rural-urban migrations.

Ankara was one of the most affected cities with migration coming especially from the country's least developed parts. The unpreparedness of city for newcomers and the rapid population increase caused many problems and so an international competition was organized to come up with a new development plan. The Directorate of Development prepared a comprehensive specification document, making certain demands. The cultural and historical identity of Ankara was to be emphasized and the expansion of city was not required further. The proposal put forward by Ni-

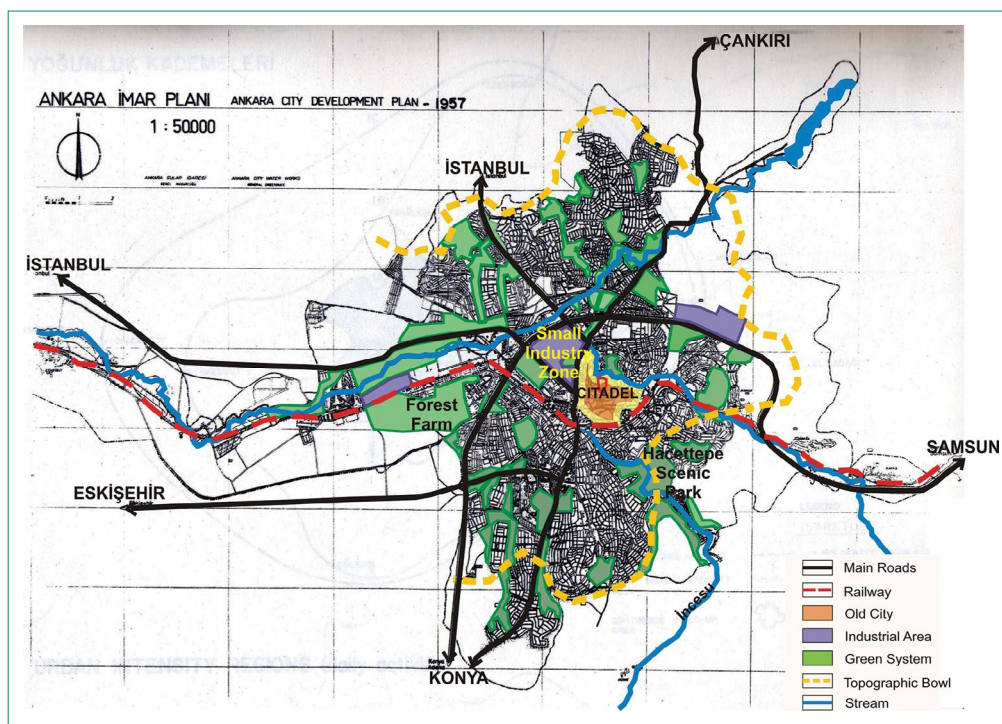


Figure 6. Topographic bowl, transportation and green system of Yücel-Uybadin Plan (schema is drawn by author over the Yücel-Uybadin Plan).

hat Yücel and Raşit Uybadin was awarded first prize in the competition in 1957. The plan aimed to create a compact city along the garden city concept lines, with all people living within the municipality boundaries. Development was kept within the topographic bowl and the transportation network was seen as the main factor that would determine future development of the city (Fig. 6).

Some two years after the approval of Yücel-Uybadin plan, a plan revision proposal was entitled the District Height Regulation. The proposal made no changes to the existing infrastructure, but doubled and tripled building heights. The Kazıkıçı vegetable gardens were transformed into a small industrial zone. The vineyards began to be abandoned at the end of the 1950s (Ortaylı, 1990, 63), and the Etlik vineyards were turned into concrete blocks. Housing cooperatives emerged, with middle-class housing cooperatives choosing locations at the fringe, although the unauthorized areas at the fringe were continuing their spread.

The other major decisions affecting the fringe were establishment of industrial areas, airport and university campuses. The large machine parks and research centers began to move to the fringe area and private sector industrial investments were attracted to the Esenboğa highway, İstanbul highway and Konya highway. Şenyel (2006, 57) states that the Law of Property Ownership (law no. 634), enacted in 1965 resulted in an increase in the number of stories of

buildings in urban areas, and low-rise housing stock being replaced by high-rise apartments within a few years. The Squatter Settlement Law (law no. 775), enacted in 1966, was another transformative intervention aimed at rehabilitating the existing unauthorized settlements, clearing them when upgrading was not possible and preventing further illegal constructions by creating Illegal Housing Prevention Zones (IHPZ). Tekeli et al. (1986, 98) makes an interesting point in stating that the number of squatter houses increased to 175,000 in the 1965–1980 period while many IHPZ projects were on the agenda. According to Tekeli et al. (1986, 62) this is evidence of the fact that these projects were unable to convert the squatters into authorized buildings. These years were also notable due to the establishment of two essential organizations that directly affected the fringe in the following period. In order to determine land policies and to prevent land speculation, the General Directorate of the Land Office was established in 1965. The Ankara Metropolitan Plan Bureau (AMPB) was founded in the same year and was charged with the development of a master plan for coming period.

The Yücel-Uybadin Plan was subjected to many criticisms, as Bademli (1990, 86), Tankut (1993, 203), Şenyel (2006, 56) and Tunçer (2013, 9) explain: The plan failed to resolve the existing problems, a high density and monotonous pattern emerged and unauthorized settlements covered the fringe. The plan aimed to control spread; however, the city had a

dense structure and an oil-drop form. Increased concentration at the center provoked a build-sell type of construction and not allowed the green corridors in the urban fabric. The productive agricultural areas were opened for development, some of the conservation areas faced construction pressure and areas had high urban densities affected by air pollution.

Ankara Metropolitan Plan 1990 and Partial Plans (1977–2006): Decentralization Policy and Growth along the Corridors

Starting from the 1970s, the restructuring of cities began as part of the capitalist industrialization process and new structural changes occurred with the beginning of car production in Türkiye and production activities also began to move from the city center to join the heavy industries located at the fringes (Yıldırım 2008, 62). The decentralization of industrial areas and services was an important factor affecting urban growth, with especially the urban fringes of metropolitan cities being affected by travel behaviors. Tekeli (2000, 30) refers to the cities in these years as having an oil-drop form with an ever-increasing density, and highlights the problems of infrastructure and traffic congestion that continued to exist and increase, especially up until the mid-1970s.

In Ankara, planning practice of this period can be considered important in the context of the urban fringe for two reasons. The first of these was that the planning approach and proposals differed from previous plans in the form of the structural plan; and secondly, controlling and managing growth at the fringe was, for the first time, the primary objective of the plans. The period has been analyzed in two sub-terms, being the period of the Ankara Metropolitan Planning Bureau (AMPB) (1977–1984) and the years between the closure of the AMPB and the approval of the 2007 Capital Ankara Plan (1985–2006).

I. The Period of Ankara Metropolitan Planning Bureau: 1977–1984

The urban form grew into a network that has been very expensive to operate since the 1970s. The city was surrounded by illegal constructions to the north, east and south. Inadequate infrastructure and services arose mirroring the previous periods. Accordingly, the AMPB prepared a framework plan scheme between 1977 and 1982 known as the Ankara Metropolitan Plan 1990. The 1/50 000-scale plan defined the principles and the structure of city, and differed from other plans, in that it was prepared as a structural plan. It was granted approval in 1982 following a five-year analysis. Altaban (2015) explains in the interview:

“The planning efforts in this period can be considered as the first detailed and comprehensive studies and the most participatory process in the planning history of Ankara. The plan was

considered as the main tool for growth control. The aim of the plan was to manage the development through decentralization. The priorities were avoiding increases in urban densities, creating a rail transport system in the city, generating a greenbelt and preventing air pollution. New neighborhoods were also proposed around the İstanbul highway in the form of specialized sub-areas and multiple centers. The policies to control growth were rather clear in the plan and there was cooperation with the Land Office and Emlak Bank to maintain the control of land”.

It is obvious that it was the transportation structure that determined the form of city, as had been the case in previous periods (Fig. 7).

The fringe comprised natural resources, residential areas and infrastructures adjacent to the city until the realization of the Ankara Metropolitan Plan in 1990; however, leaping settlements were also created beyond the topographic bowl to the south of city, the first of which were Or-An and Gölbaşı. In both cases, the settlement lands were purchased outside the boundaries and permission was obtained through Partial Plans. In this way, large-scale residential developments were realized by some companies in this period.

The legal arrangements were the main drivers of the change at the fringe in the 1980s. The Mass Housing Laws of 1981 and 1984 led thousands of individuals and cooperatives to apply to the Mass Housing Fund for financing and the housing cooperatives consequently pioneered suburbanization by implementing mass housing projects at the urban fringe. The Amnesty Laws enacted between 1983 and 1986 allowed many people to purchase their own homes, although this transformation occurred in an unhealthy manner. While the Ankara 1990 Plan proposed the opening of 9,000 ha of planned area, 13,000 ha of unplanned area was opened for settlement with the Amendment Plans. The Building Amnesty Law, enacted in 1984, aimed to restructure the squatter areas through urban redevelopment projects. In this way, squatter areas were replaced by apartment blocks and residential densities were increased. These laws also determined the tasks of the Mass Housing Administration (MHA), leading to a steady increase in mass housing projects. In accordance with these legal arrangements, it was mass housing projects that defined the character of the fringe in the 1980s.

II. The Period of 2015 Structural Plan: 1985–2006

Planning practices and institutions have become more market-oriented with short-term perspectives given the increasing power of market forces from 1980 onwards. The strategic role

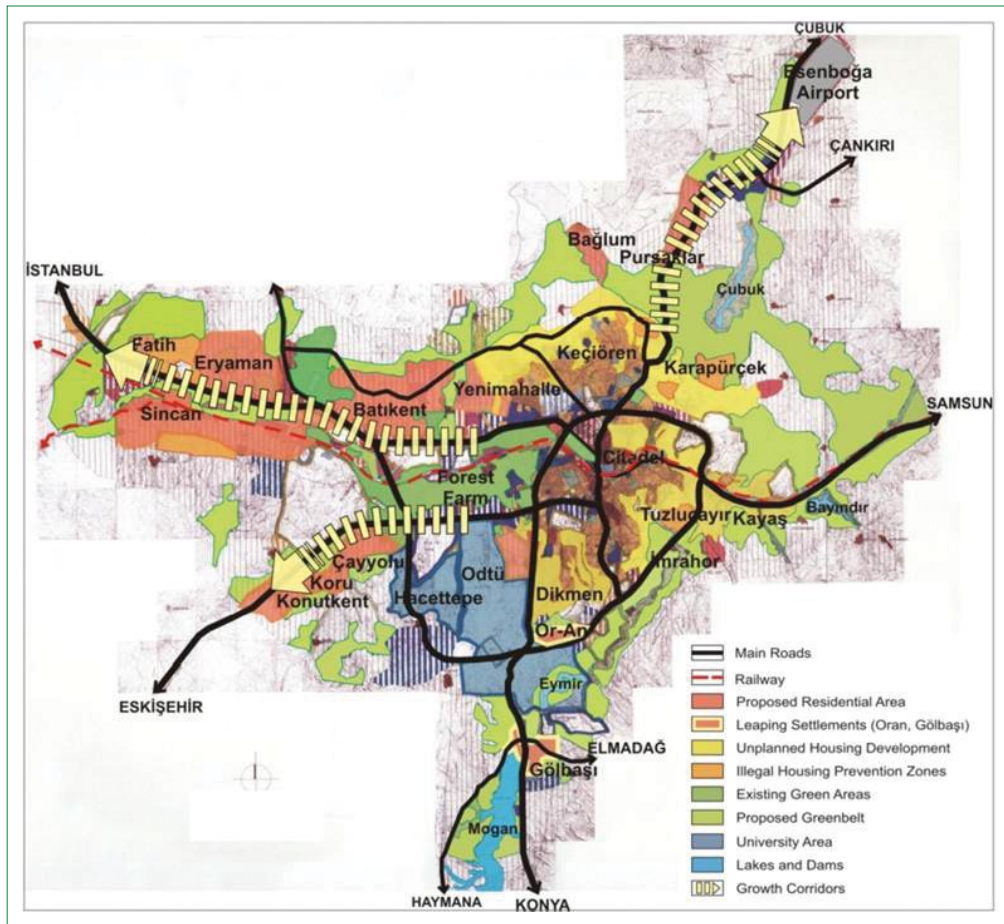


Figure 7. Development corridors and greenbelt of the Ankara Metropolitan Plan 1990 (schema drawn by author over the Ankara Metropolitan Plan 1990).

of land management has increased. Land management without a planning framework and proper urban policy leads to the collaboration with deregulation policies and with narrow criteria of the market, i.e. the loosening of planning controls over land development. Under deregulation policies, the movement of capital into the real estate activities in accordance with the profitability criterion has resulted in development of land based on the assignment of overabundant development rights to privatized state-owned real estate. Türkiye's larger cities in particular suffer from excessive planned lands problems and there has been a change to management oriented land development from policy oriented development planning, which is based on the narrow and short-term rationalities of market. Rapid, unforeseen and unprecedented situations shape the urban development characterize in the country (Keskinok, 2015).

In Ankara, the applications of partial plans accelerated the uncoordinated development of the city from the mid-1980s onwards, and it was under these conditions that a team from Middle East Technical University, Department of City and Regional Planning prepared a public transport investment plan

at a 1/100 000 scale that contained policies for 2015. The plan projected a population of 5 million and covered an area that extended beyond boundary of the Ankara Metropolitan Plan 1990, including Elmadağ, Kazan, Çubuk, Akyurt, Temelli and Ahıboz (Tekeli et al., 1986). Two major policies were proposed that would affect directly the characteristics of the fringe; decentralization and greenbelt. The proposed decentralization would be achieved through an intensification of the existing settlements within the 35–40 km ring, be in a star-shaped form and promote the use of public transport (Fig. 8).

Another policy of plan was to improve the greenbelt system to facilitate air circulation within the urban form and an 8–10 km wide greenbelt was planned, increasing the width of the existing one (Tekeli et al., 1986). Although the 2015 plan was not approved, the plan collected considerable data related to the capital and contributed to the transportation system of the city.

The foremost impact of these years was the influence of globalization on the urban space after the 1990s. The

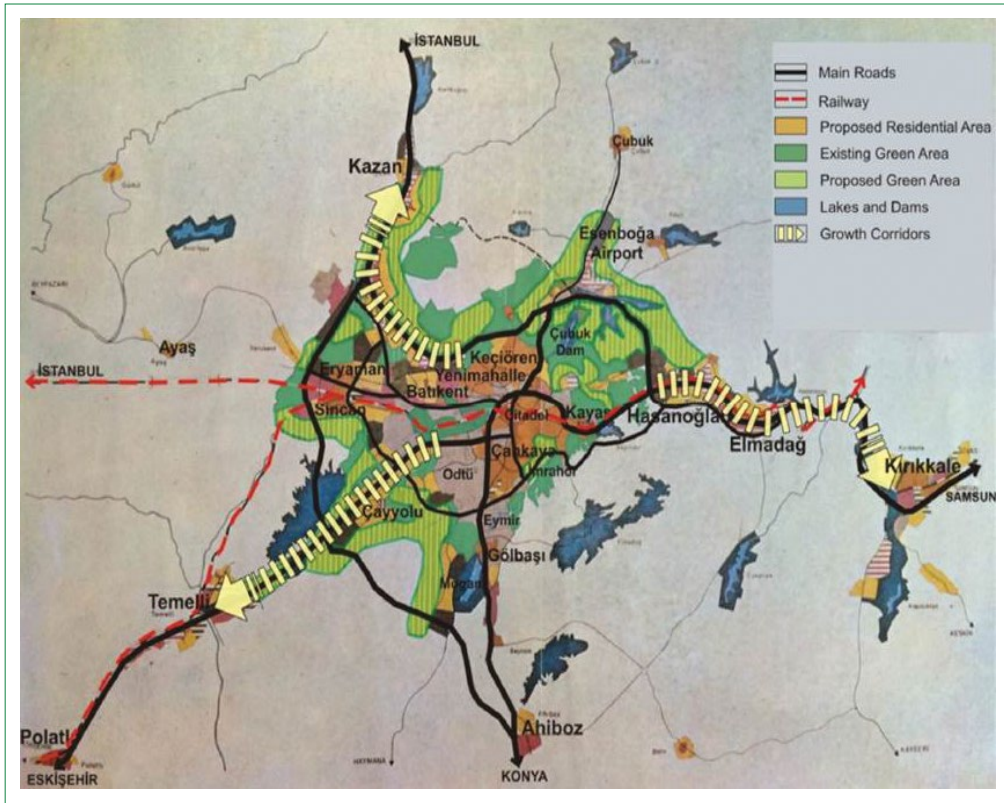


Figure 8. Growth corridors and green system in the Ankara Development Plan 2015 (schema drawn by author over the Ankara Development Plan 2015).

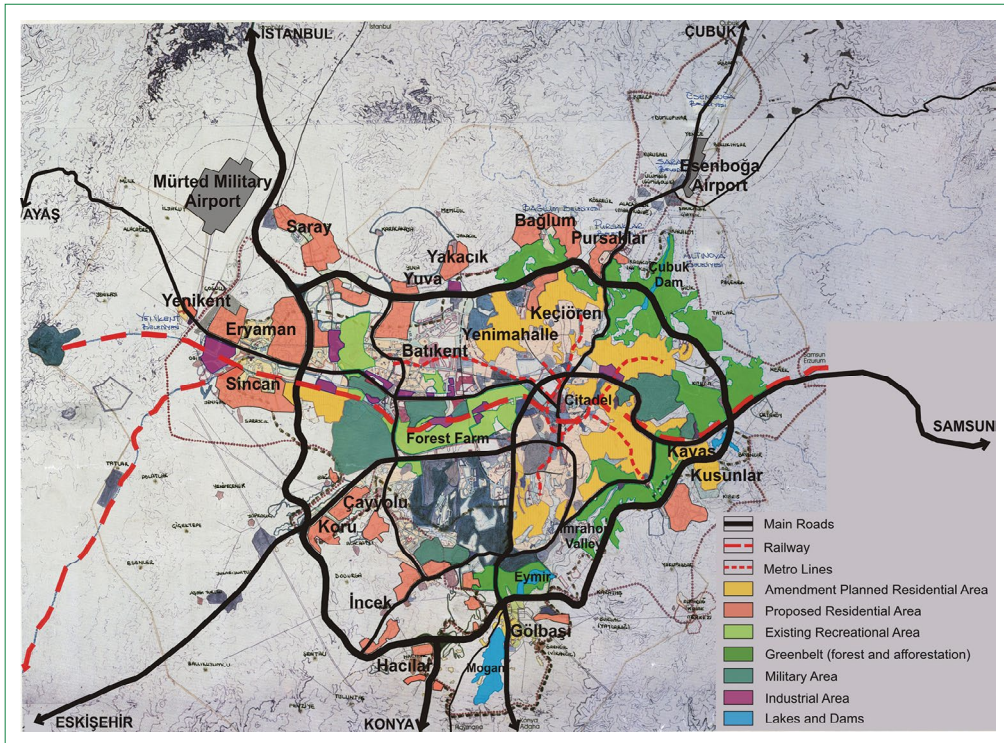


Figure 9. Growth corridors and greenbelt system in the Ankara Plan Scheme 2025 (schema drawn by author over the Ankara Plan Scheme 2025).

Turkish economy gained a neo-liberal, foreign trade oriented character. And the new system encouraged the private sector to make investments in a variety of fields. (Şenyel, 2006, 66). The Privatization Law enacted as a major step in the privatization of state-owned lands and state enterprises. Keskinok (2006, 106) criticizes that privatization and planning brought about two opposing forms of development. While the former promotes the unequal development of the market, the latter seeks to control the planning and organization of development in an equal way for the public interest.

The decentralization of large-scale investments and spatial mobility also influenced the characteristics of fringe areas during the 1990s, as explained by Şengül (2001, 89), Günay (2007, 38) and Yıldırım (2008, 66). Large enterprises increased their power making large-scale investments into the building of edifices such as shopping malls, five-star hotels and business centers, making major Turkish cities a market of speculative profits. As stated by Ünlü (2015), it is noteworthy that some functions of the city centers tended to move towards the fringes and create new business areas in this period. The people with high incomes also began to look for a new lifestyle, leaving the city center and settling around the urban fringe in more luxurious homes and more secure communities, referred to as gated communities that were isolated from the other parts of the city. Under these circumstances, the scope of the 2015 plan was extended and the Ankara Development Plan Scheme 2025 began to be arranged at the beginning of the 1990s by Ankara Metropolitan Municipality. Decentralization returned as the main strategy and eight decentralization corridors were planned (Fig. 9). Providing greenbelt system, encouraging highly qualified sub-centers, developing settlements along Eskişehir Highway and relocating public areas towards the Samsun axis were key features of the plan (Ankara Metropolitan Municipality, 1998).

The Plan for 2025 was criticized in many aspects. For instance, a large amount of agricultural areas (105,962 ha) were to be developed along the Eskişehir axis and on the Esenboğa Airport road (Sezgin and Varol, 2012, 275). The star-shaped development pattern began to deform. Many partial plans and amendment plans were made, all of which contributed to the triggering of urban sprawl (Çalışkan, 2004, 156). In this period, Urban Redevelopment Projects can be thought as another significant factor bringing about change within the city and at the fringe. Modern houses have replaced squatters, the household pattern has changed and high-income people have started to live in the prestigious houses as a result of these projects. Vineyards totally disappeared since the mid-1990s and the construction of the Ring Road, Organized Industrial Zones and

shopping centers have triggered new residential areas at the fringe. At the beginning of the 2000s, the number of large-scale projects increased and the urban form began to be shaped in accordance with the mass infrastructure and transport projects.

In 2001, a 1/50 000-scale Partial Revision of the Ankara Metropolitan Plan 1990 was approved for the south-west corridor, prepared through the cooperation of the Municipality and the Ministry. Çalışkan (2004, 156) claims that revisions for the south-west corridor reached 107, many of which were for areas of less than 2 ha. In this process, new legal arrangements were put in place in Türkiye that changed the boundaries of cities and the authorities of municipalities. The Metropolitan Municipalities Law (law no. 5216), the Provincial Local Administration Law (law no. 5302), the Municipality Law (law no. 5393) and the Mass Housing Law (law no. 5162) were granted approval in 2004 and 2005. The boundaries of Türkiye's greater municipalities were expanded as a result of the implementation of the Metropolitan Municipalities Law, and the responsibility for preparing 1/1000-scale Implementation Plans as local plans were given to the district and town municipalities.

Ankara 2023 Master Plan (2006 onwards): Large-Scale Partial Plans and Urban Transformation Projects at the Fringe

The most recent master plan, the (Capital) Ankara 2023 Master Plan at 1/25 000-scale, was prepared in 2006 by the Ankara Metropolitan Municipality Directorate of Development and Urbanism. The plan contained two main strategies that would directly affect the fringe: integrated urban form and improved public transportation opportunities. An integrated urban form could manage the growth, protect natural resources and steer corridor development (Ankara Metropolitan Municipality, 2006, 15).

The fringe is not clearly defined in the plan report, however there are many directives to control growth (Ankara Metropolitan Municipality, 2006, 16, 90): Prioritizing compact urban form options, producing different settlement options that limit to destroy protected areas, creating livable, healthy and high-quality rural and semi-rural environments, generating aerial corridors and leaving forested areas and agricultural areas out of settlements as parts of the greenbelt. Although highlighted in the plan strategies, no large-scale green system including green corridors or a relation with the fringe is set out in the plan schema (Fig. 10).

The Chamber of City Planners stated some contradictions between the plan report and physical plan document, and objections have been raised related to some issues, including trans-

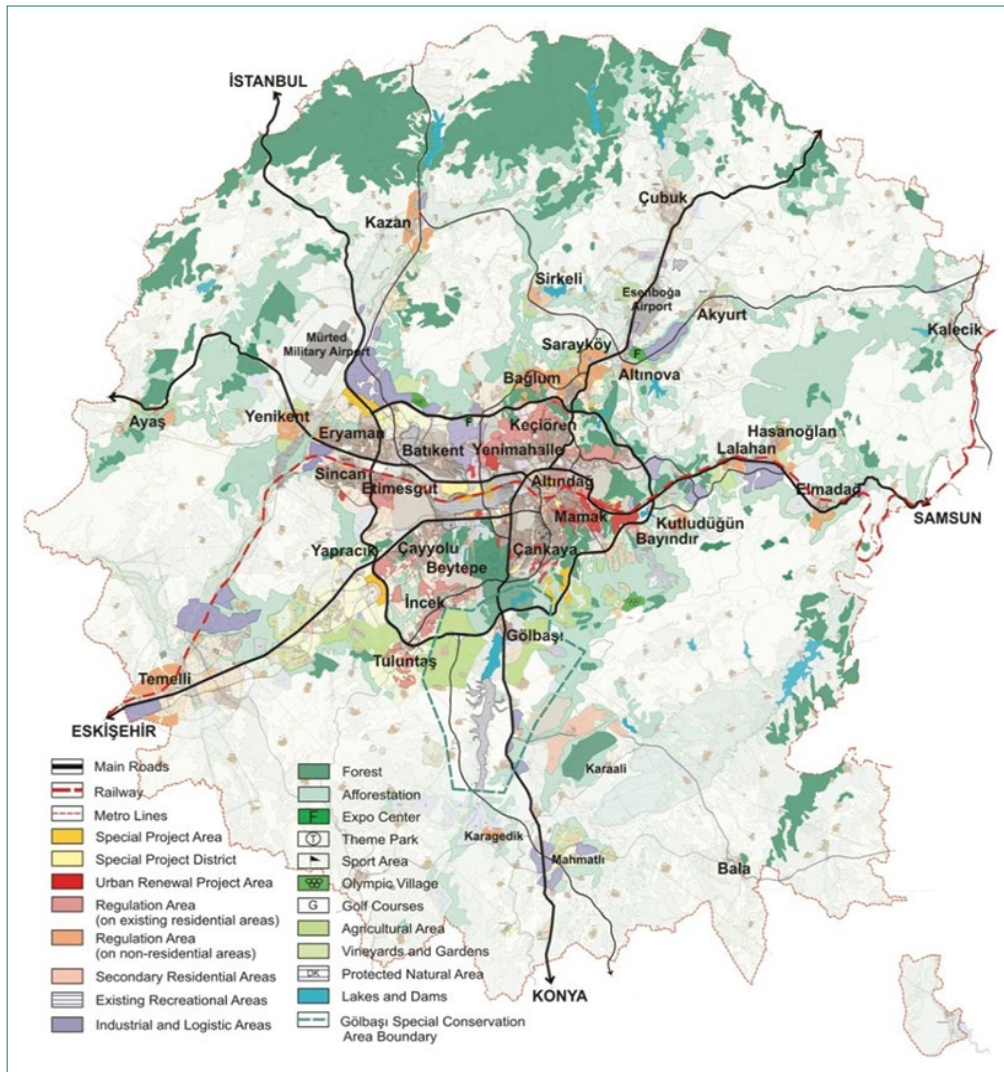


Figure 10. Plan decisions in the Ankara 2023 Master Plan (Ankara Metropolitan Municipality, 2006).

portation and density decisions, the siting of industrial areas and construction decisions in agricultural zones by a number of different institutions, organizations, universities and chambers. In 2012, 13 provinces were declared as metropolitan municipalities in addition to the existing 16 metropolitan municipalities in Türkiye with Law no.6360. The boundaries of metropolitan municipalities were extended to the provincial border. Planning at an upper-scale by a single authority was deemed an appropriate approach to prevent fragmented development, while also strengthening the authority of metropolitan municipalities with Law no.5216. This transfer of planning authority was criticized in terms of its connection to the planning principles, and due to the need to prepare the implementation plans by the local municipality as the closest unit to the community. Ankara has influenced by the recent planning decisions, legal regulations and administrative implementations as the other metropolitan municipalities. According to the field study,

the present characteristics of the fringe in Ankara comprise prestigious high-rise and low-rise residential areas, high-rise mass housing areas, low-rise rural settlements, squatter areas, some educational and state campuses, recreational areas, industrial areas, afforestation areas, agricultural fields, sand quarries and brick kilns (Fig. 11).

Low-rise prestigious residential areas can be found mostly in the south-west of the city and include villas and low-rise cooperatives, built through the application of Partial Plans since the beginning of 2000s. High-rise prestigious residential areas located especially along the west, southwest and southeast corridor. There are many mass housing areas that have been produced by the private sector, however, most of the mass housing areas are produced by Mass Housing Administration. It is remarkable that there are a number of high-rise housing projects located next to agricultural areas and pastures at the fringe (Fig. 12).



Figure 12. (a) Constructions next to agricultural areas at the fringe (personal archive, 2016). **(b)** Constructions next to agricultural areas at the fringe (personal archive, 2016).

frastructure and car ownership caused the city to grow excessively and the current system encourages this situation. The excessive growth of city with the rapid production of built environment by the capital has become a strategy in itself” (Keskinok, 2015). “The applications of a great number of

plan changes and many partial plans have caused the degeneration in planning. Rent-oriented, instantaneous and rapid interventions to the city eliminate the negotiation processes. Protection decisions in the urban fringe have been violated in all respects” (Sarıaltun, 2015).

Results and Discussion

In the article, it is aimed to identify the rationales behind the urban growth process and the implementations of planning and policy instruments for the control of growth in Ankara understanding “how have the characteristics of the fringe area changed over time” and “how was the fringe controlled in different planning periods”. The first question intended to examine the features of the fringe of Ankara in a historical manner. The second question targeted to identify the planning and policy tools determined by various authorities in different periods for the control of growth, and the successes and failures of growth control strategies implemented in each period. The document analysis, in-depth interviews and field study indicate that Ankara is a significant case in terms of the urban growth.

As mentioned before, the fringe has been interpreted as dynamic, heterogeneous, fragmented and ecologically fragile zone of transition between urban and rural land-uses where changes occur on a continual basis. The major land-use categories at the fringe have been identified as waste management facilities, recreational land-uses, transport infrastructure, conservation sites, energy production and distribution areas, industrial premises, commercial development, low-density residential development, farming and forestry. As far as Ankara is concerned, the city walls and Bendderesi were the major boundaries of the settlement in the 17th century, and the fringe comprised agricultural lands, hills and cemeteries. The demolition of the outer walls of the Citadel and the arrival of the railway to the city led the growth towards the plain in the 1890s. Bendderesi and Altındağ Hill continued to be the limits to the north and almost 2000 vineyard houses existing at the fringe. In the mid 1920s, growth decisions extended the city towards the fringe area, passing Bendderesi, Altındağ Hill and İncesu Stream and the boundaries of the city were no longer natural features, although there were still vegetable gardens and vineyards at the fringe.

In 1930's, as immigrants could not afford to purchase the existing houses, illegally developed settlement areas began to spring up at the fringe. The sprawl was concentrated in the old town, building density became more intensive along the southern axis of the city and dual settlement patterns emerged between the new town and old town at the end of 1940s. The 1950s are considered a breaking point in the urbanization of Ankara. Political and economic changes brought about substantial changes in the post-war years, with Ankara being one of the cities most affected by the migration. The migrants started a boom in illegally developed settlement areas at the fringe. The vegetable gardens at the fringe area were also transformed into a small indus-

trial zone and vineyards began to be abandoned at the end of the 1950s. The bowl-shaped topographic threshold was exceeded, and the majority of vineyards were all but gone by the 1960s. Housing cooperatives emerged at the fringe in these years, although the unauthorized areas at the fringe were continuing their spread. The establishment of industrial areas, the airport and university campuses also affected the character of the fringe. Urban densities increased both within the city and at the fringe. It was the infrastructure and transportation structure that determined the form of city and the fringe, as had been the case in previous periods. Leaping settlements were created beyond the topographic bowl, and large-scale residential zones began to be developed by companies in the 1970s.

The year 1980 was marked by a military intervention that resulted in a neo-liberal economic and political milieu that also brought about changes in the spatial pattern of cities. Settlement lands were purchased outside the boundaries of the city and building permission was obtained through partial plans in this period, bringing about a rise in large-scale residential developments at the fringe. The legal arrangements were the main drivers of change at the fringe in the 1980s. Mass housing projects at the urban fringe came to define the character of the fringe. Unauthorized settlements continued to sprawl to the east while unlicensed multi-storey constructions sprang up along the northern route. At this point, a duality occurred at the fringe (Çalışkan, 2004); with a low-rise medium to high-density pattern of squatter areas and high-density high-rise pattern of mass houses found alongside each other.

The population of city increased by about 100 times and reached 4.8 million between the 1920s and the 1990s, and city sprawled to 80,000 hectares from 250 hectares (about 320 times) in the same period (Ankara Metropolitan Municipality, 2006). The application of partial plans, partial plan revisions and amendment plans accelerated the uncoordinated development of the city, especially after the 1980s, contributing to the urban sprawl. A star-shaped development pattern began to form in the 1990s. It was under urban redevelopment projects that modern houses replaced squatters, changing the household pattern. The construction of the Ring Road, Organized Industrial Zones and shopping centers has triggered new residential areas at the fringe. The rising influence of globalization on urban space after the 1990s heralded in a more foreign-oriented system that encouraged private investment, and the free-market mechanism became one of the most important directors of urban growth.

Marketization and privatization gained speed in the 2000s. The form of city began to be shaped in accordance with the

Table 1. Change of fringe characteristics in Ankara

	The early planning period (1924–1957)	Yücel-Uybadin plan period (1957–1977)	AMPB plan period (1977–1984)	2015 Structural Plan period (1985–2006)	Ankara 2023 Master Plan period (2006 onwards)
Vineyards	+	+			
Vegetable Gardens	+				
Agricultural fields	+	+	+	+	+
Pastures	+	+	+	+	+
Forests	+	+	+	+	+
Afforestation areas			+	+	+
Valleys		+	+	+	+
Cemeteries	+	+	+	+	+
Educational areas	+	+	+	+	+
Airport	+	+	+	+	+
Industrial areas		+	+	+	+
Unauthorized housing areas	+	+	+	+	+
Housing cooperatives		+	+	+	+
Mass housing areas			+	+	+
Prestigious residential areas				+	+
Urban renewal project areas				+	+

AMPB: The Ankara Metropolitan Plan Bureau.

mass infrastructure and transport projects. The southwest corridor saw a rapid rise in settlement with the arrival of luxurious housing. The present characteristics of the fringe in Ankara comprise prestigious high-rise and low-rise residential areas, high-rise mass housing areas, low-rise rural settlements, squatter areas, educational and state campuses, recreational areas, industrial areas, afforestation areas, agricultural fields, sand quarries and brick kilns as stated before. Table 1 summarizes the change of fringe characteristics in Ankara including the land-uses in fringe according to the different plan periods.¹

Dijk (2009) uses the “cannot move” term to refer the non-movable areas at the urban fringe, including ecological and agrarian values; and the “move” term to indicate the movable areas that have no priority of protection. Although can or cannot move areas were not separated distinctly in urban plan documents in Ankara, protection of natural resources was one of the main proposals in all periods. However, vineyards and vegetable gardens could not be protected especially after the 1950s. Agricultural areas, pastures, forests, cemeteries, educational areas, airport and unauthorized housing have been the consistent land-uses at the fringe as seen in the Table 1.

The form of city has taken on a dispersed structure of different urban land uses in among the pasture and agricultural areas, which has led to a rise in tension between the urban and rural. Increasing unit sizes and decreasing values are defined in the land-use characteristic of fringe in literature, as mentioned before, however the land speculation and site selection for many prestigious housing projects along the transportation corridors have reversed this definition for some parts of the fringe of Ankara. Sprawl has been one of the most critical factors currently that might cause the emergence of fringe areas. Until the last planning term, the control of growth was always a leading concern, and many planning and policy tools have been proposed and implemented over time in an attempt to control urban growth since the 1920s. Table 2 presents all strategies have been proposed for growth control, from the earliest period.

Increasing the land stock in public ownership with “land expropriation” constituted the first efforts to direct the growth of the city. Land expropriation was quite important in terms of its role in the creation of the new city. First decision to create a green system also began in the early planning period. The idea of a “greenbelt” has been the only consistent

¹ The green colored land-uses in the first column overlap with the main land-use categories at the fringe which have been identified in literature while the yellow colored land-uses are outside of the fringe’s definition. Unauthorized housing areas are evaluated in the main land-use categories of fringe due to their low-density building characteristics. The plus sign refers to the existence of the land-use as a part of fringe in the specified period.

Table 2. Strategies proposed for growth control

The early planning period (1924–1957)	Yücel-Uybadinplan period (1957–1977)	AMPB plan period and 2015 Structural Plan period	Ankara 2023 Master Plan (2006 onwards) (1977–2006)
Expropriation	Greenbelt policy	Greenbelt policy	Greenbelt policy
Greenbelt policy	Concentration in topographic bowl	Expropriation	Integrated urban form strategy
Creation of a boundary for the settlement	The transportation network as a major factor to determine future development	Decentralization policy	Separating the settlement into districts
Separating the settlement into districts	Increasing building densities in city	Growth along the corridors	
Construction Border Plan		Limitation of infrastructure, transportation and services	
Determination of internal and external expansion areas		Encouraging mixed-use development	

AMPB: The Ankara Metropolitan Plan Bureau.

tool proposed in urban plans, starting from the first planning attempts. The greenbelt proposals prevent urban sprawl by keeping land permanently open, securing nature conservation interest, retaining land for forestry and agriculture, restricting sprawl of development and providing opportunities for outdoor recreation (Cadieux et al., 2013). In Ankara, the plans proposed a greenbelt to prevent sprawl and to protect the natural assets at the fringe, however the actual greenbelt implementations included the planting of trees, with less efforts made to encourage the recreational use of the fringe.

In the 1950s, despite the concentration proposal in the Yücel-Uybadin Plan, increased building heights along the highways affected the characteristics of the fringe, and the city came to be surrounded by unauthorized settlements, taking an oil-drop form in the 1960s. The Ankara Metropolitan Planning Bureau plan period differed from other periods in its extensive use of data and surveys, the alternative proposals and development schemes put forward, the evaluation of different alternatives based on many parameters and the preparation of a structural plan. Controlling and managing growth at the fringe was for the first time the main objective of the plan, with the greenbelt, decentralization, and limitations on infrastructure, transportation and services being the main tools for the control of growth. The AMPB plan period can be considered a substantial and beneficial asset to the planning process of Ankara in terms of directing growth and avoiding the effects of sprawl.

The period since the mid-1990s, the city has started to be restructured by powerful actors in a fragmented way, and recent planning approaches have led to incremental, piece-

meal and uncoordinated development since the 2000s. Such planning efforts as revision plans, partial developments plans and amendment plans affected the structure of fringe by increasing the population and building densities through mass housing cooperatives, urban redevelopment projects and large scale projects. The implementations of the planning and policy instruments have actually caused much environmental destruction at fringe, increasing sprawl. Renewal project area, special project area and special project district proposals in the 2023 Plan allowed a certain degree of construction at the fringe. Building stock has increased in every direction of city.

Beside the inadequacies of planning and legislation implementations, limited successes in growth control have been achieved in Ankara. A garden city character was proposed for the city and the fringe was designed as part of a green system in the early planning period, with the main ideas of the Jansen Plan were protected basically by Yücel-Uybadin Plan. Controlling and managing growth became the major objective of the plans for the first time in the 1970s, and the plan was considered to be the main tool for the control and management of growth for the AMPB. The creation of a greenbelt was partially achieved through afforestation that is continuing even today, and many parks have been created at the fringe. However, they often remained as incremental interventions rather than a holistic approach and some parts of greenbelt have lost their natural features as a result of the recent projects at the fringe.

Conclusion

Although there is an obvious need for more effective growth control strategies in Türkiye, only a limited number

of studies exist analyzing the urban growth process with the growth control strategies. This article is presented a comprehensive framework examining the changing characteristics of fringe area by revealing the conceptual, temporal and spatial changes between the 16th and 21st centuries in Ankara, the capital of Türkiye. The research indicate that different planning and policy instruments have been proposed in different periods to control urban growth, prevent sprawl and emphasize the importance of natural features. However, especially since the 1980s, urban plans have been impacted by the demands of global economic policies and market forces, the city has been a significant case in terms of the direct effects of market forces and most of growth control strategies have failed in this regard.

The changing social and economic conjuncture, the huge market demand and the pressure for urban growth have reinforced the role of development plans in Ankara. Planning efforts have been used in line with the demands of the market-led system, partial plans and plan amendments have triggered urban sprawl. Urban plans and urban planners remained limited in proposing and implementing urban growth control strategies vis-a-vis the entrepreneurial approach. As a result, the land-use character of fringe has changed continuously failing to achieve the goals of urban growth control, prevent sprawl and protect natural features at the fringe.

The article shows through the case of Ankara that examining the development periods of fringe areas throughout their historico-geographical development in detail presents the reasons encouraging urban sprawl and efficiencies of land management policies. The studies within this scope can reveal the need for effective growth management instruments in order to avoid the possible problems that can arise as a result of existing urban sprawl and its negative effects. The article emphasizes the importance and necessity of consistent and continuous plan decisions on urban growth control in different planning periods. It also underlines the importance of planning capital cities, such as Ankara, that they need to be approached as the “planning of a capital city”, managing by specific plans, programs and guidelines to provide strong growth control.

Strong growth control policies guides growth, not just mitigates its effects. These policies identify a clear implementation way including “how, by whom, by when”. The costs of implementation need to be calculated and funding sources identified. Different social, cultural, economic and environmental policy areas should be joined-up into investment programmes; monitoring and evaluation need to be included; and there needs a larger and more professionally trained planning staff (World Bank 2008). The specific plans and guidelines in upper-scale such as nature protection plan,

green network plan, green infrastructure plan, agricultural, open space and watershed protection programs, protected areas guidelines etc. are required for strong growth control. The specific plans, programs and guidelines considering the characteristics of ecosystems should be directive to control growth and prevent sprawl.

Urban containment strategies and smart growth strategies should also be considered as the important tools to eliminate the negative consequences of urban sprawl and make cities more sustainable and resilient. Alternative planning scenarios should be created for growth control and a final selection should not be made without analyzing the possible consequences of alternatives. Planning efforts should also be realized through participatory processes. Creating a public sphere, partnerships and participation between local decision makers, urban planners, environmental agencies and other related actors in the planning process is crucial for utilizing the state-owned lands at the fringe for public interest.

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