

TOBB UNIVERSITY OF ECONOMICS AND TECHNOLOGY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES

**A MORPHOLOGICAL ANALYSIS OF BURSA HISTORIC CITY CENTER:
THE PHYSICAL TRANSFORMATION OF THE KHANS DISTRICT
BETWEEN 1862 AND 2018**

MASTER OF SCIENCE

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Department of Architecture

Supervisor: Assoc. Prof. Dr. Elif MIHÇIOĞLU

APRIL 2024

DECLARATION OF THESIS

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work. Also, this document has been prepared following the thesis writing rules of TOBB ETU Graduate School of Natural and Applied Sciences.

Emine Şeyda BAYRAM

TEZ BİLDİRİMİ

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Emine Şeyda BAYRAM

ABSTRACT

Master of Science

A MORPHOLOGICAL ANALYSIS OF BURSA HISTORIC CITY CENTER; THE PHYSICAL TRANSFORMATION OF THE KHANS DISTRICT BETWEEN 1862 AND 2018

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Urban morphology, in its most general sense, is the study of the city as a living space. Urban morphology studies aim to analyze the relations produced in the development process of social structure through urban space and urban patterns by examining the change in space. The main purpose of this thesis is to analyze the Khans District, one of the main areas of the historical city center of Bursa, based on morphological approaches. The city of Bursa, as the cradle of important civilizations throughout history, has always maintained its importance with its history, culture, social and economic structure. This diversity has shaped and changed the city in socio-cultural, economic, and architectural terms. The city, which was shaped by its unique urban settlement features in the Ottoman period, changed its physical and architectural features in the 20th century due to industrialization, migration, and globalization. Especially after the 1960s, it is observed that the original qualities were subject to rapid change and beyond that to an increasing deterioration. It is important and necessary to be able to stop the ongoing loss of quality in the historical urban fabric, to transfer it to the future as original as possible, to guide the future interventions in the Khans District with restitutive approaches based on reliable sources or to interpret them by taking reference or inspiration from them. In line with these purposes, examining and

defining the urban characteristics of Khans District in different periods, which constitutes an important part of the historical city center of Bursa, one of the leading historical and trade centers of Turkey, examining the change of urban characteristics between periods, revealing the morphological interaction of urban and architectural qualities. It is thought that the analysis based on this method is important in terms of guiding future planning and urban design in the study area, as well as the conservation and restoration works. The research period is determined between the years of 1862-dated Suphi Bey Map, the oldest map of Bursa, and 2018, the most current map year, to determine the physical change and the factors behind the morphological transformation of the historical city center of Bursa Khans District. In the light of cartographic materials, old photographs, and written documents, urban morphological analyses, shown on redrawn maps are used to compare different periods of the Khans District morphologically. In the analyses and data processing process the redrawn maps (with their removed deformations due to their old techniques) of 1862, 1909, late 1920s, 1957, 1989, and 2018 superposed successively. During the visual and formal analysis of the thesis study in line with the determined target, it is aimed to simplify the urban fabric and architectural features and to show the diversity and richness in various stages. In addition, it is aimed to reveal and compare the evolution at every phase of the ‘urban fabric’, ‘urban circulation network’, and ‘land use (functional distribution)’ for the Khans District, to reveal physical continuities and changes. As a result of the morphological analyses, it is observed that the organic urban fabric became more linear with the new transportation networks opened. In addition, it can be said that public and administrative buildings constructed with new materials and construction techniques due to the political regimes, the influence of modernism and planning have transformed the area into a region where administrative, public, and social functions, as well as commercial functions, coexist. According to the literature review, it was observed that there was no study conducted with the morphological method using cartographic materials regarding Khans District of Bursa. In this context, it is thought that this thesis study based on the morphological method will be an original resource in terms of guiding future planning and urban design studies, as well as conservation and restoration studies.

Keywords: Urban morphology, Planning activities, Urban transformation, Khans District, Bursa historical city center.

ÖZET

Yüksek Lisans Tezi

BURSA TARİHİ KENT MERKEZİ'NİN MORFOLOJİK ANALİZİ: HANLAR BÖLGESİ'NİN 1862 İLE 2018 YILLARI ARASINDAKİ FİZİKSEL DEĞİŞİMİ

Emine Şeyda BAYRAM

TOBB Ekonomi ve Teknoloji Üniversitesi
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Kent morfolojisi en genel anlamıyla kentin bir yaşam alanı olarak incelenmesidir. Kent morfolojisi çalışmaları, mekandaki değişimi inceleyerek toplumsal yapının gelişim sürecinde üretilen ilişkileri kentsel mekan ve kentsel dokular üzerinden analiz etmeyi amaçlar. Bu tezin temel amacı, Bursa'nın tarihi kent merkezinin ana alanlarından biri olan Hanlar Bölgesi'ni morfolojik yaklaşımlara dayalı olarak analiz etmektir. Tarih boyunca önemli medeniyetlerin beşiği olan Bursa şehri, tarihi, kültürü, sosyal ve ekonomik yapısıyla her zaman önemini korumuştur. Bu çeşitlilik şehri sosyo-kültürel, ekonomik ve mimari açıdan şekillendirmiş ve değiştirmiştir. Osmanlı döneminde kendine özgü kentsel yerleşim özellikleriyle şekillenen kentin, 20. yüzyılda sanayileşme, göç ve küreselleşme nedeniyle fiziksel ve mimari özellikleri değişmeye başlamıştır. Özellikle 1960'lı yıllardan sonra özgün niteliklerin hızla değişime uğradığı, bunun ötesinde giderek artan bir bozulmaya uğradığı görülmektedir. Tarihi kent dokusunda süregelen kalite kaybını durdurabilmek, mümkün olduğu kadar özgün bir şekilde geleceğe aktarabilmek, Hanlar Bölgesi'nde bundan sonra yapılacak müdahalelere güvenilir kaynaklara dayalı onarıcı yaklaşımlarla yön verebilmek ve onlardan referans alarak veya ilham alarak yorumlayabilmek önemlidir. Bu amaçlar doğrultusunda tez çalışmasında Türkiye'nin önde gelen tarihi ve ticari merkezlerinden

biri olan Bursa'nın tarihi kent merkezinin önemli bir bölümünü oluşturan Hanlar Bölgesi'nin farklı dönemlerdeki kentsel özelliklerinin incelenmesi ve tanımlanması, kentsel özelliklerin farklı dönemlerdeki değişiminin incelenmesi, kentsel ve mimari niteliklerin morfolojik etkileşimini ortaya koymak hedeflenmiştir. Araştırma dönemi, Bursa Hanlar Bölgesi'nin fiziksel değişimini ve morfolojik dönüşümünün arkasında yatan faktörleri belirlemek amacıyla, Bursa'nın en eski haritası olan 1862 tarihli Suphi Bey Haritası ile en güncel harita yılı olan 2018 yılları arasında belirlenmiştir. Hanlar Bölgesi'nin farklı dönemleri, kartografik materyaller, eski fotoğraflar ve yazılı belgeler ışığında, yeniden çizilen haritalar üzerinde yapılan kentsel morfolojik analizler kullanılarak karşılaştırılmıştır. Analiz ve veri işleme sürecinde 1862, 1909, 1920'lerin sonu, 1957, 1989 ve 2018 yıllarına ait haritalar yeniden çizilerek (eski teknikleri nedeniyle deformasyonları giderilmiş olarak) üst üste karşılaştırılmıştır. Tez çalışmasının belirlenen hedef doğrultusunda görsel ve biçimsel analizi sırasında kentsel doku ve mimari özelliklerin sadeleştirilmesi, çeşitlilik ve zenginliğin çeşitli aşamalarda ortaya konulması ve 'kentsel doku', 'kentsel dolaşım ağı' ve 'arazi kullanımı (işlevsel dağılım)'ın her aşamasındaki evrimin ortaya konulması ve karşılaştırılması, fiziksel sürekliliklerin ve değişimlerin ortaya konulması amaçlanmıştır. Yapılan morfolojik analizler sonucu, açılan yeni ulaşım ağları ile organik kent dokusunun daha lineer hale geldiği görülmüştür. Bunun yanı sıra siyasi rejimler, modernizm etkisi ve planlamalar sonucunda yeni malzeme ve yapım teknikleriyle inşa edilen kamusal ve yönetim yapılarının, alanı ticari işlevi yanısıra yönetim, kamusal ve sosyal işlevlerin birarada bulunduğu bir bölgeye dönüştürdüğü söylenebilir. Yapılan literatür taramasına göre, çalışma alanı ile ilgili, kartografik materyalleri kullanarak morfolojik yöntemle yapılan herhangi bir çalışma bulunmamaktadır. Bu bağlamda, morfolojik yöntemle dayalı bu tez çalışmasının, koruma ve restorasyon çalışmalarının yanı sıra, gelecek planlama ve kentsel tasarım çalışmalarına yol göstermesi açısından özgün bir kaynak olacağı düşünülmektedir.

Anahtar kelimeler: Kentsel morfoloji, Planlama çalışmaları, Kentsel dönüşüm, Hanlar Bölgesi, Bursa tarihi kent merkezi.

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1. INTRODUCTION

Urban morphology, in its most general sense, is the study of the settlement as a human habitat (Moudon, 1997, p.3). It examines the change in space and aims to analyze the relations produced in the development process of social structure through urban space and urban patterns (Ünlü, 2018, p.64). While urban morphology deals with the physical form of settlements or the study of urban structure, morphological analysis can be defined as the determination of the physical development process with the help of structural elements such as buildings, gardens, streets, parks, and monuments. However, in the field of urban design, it can be said that urban morphology is seen as a research method to examine and understand the visible and invisible rules regarding the way buildings and open spaces in a settlement come together. Morphology studies are used to describe and analyze the reflections of transformations of urban and architectural features. It is seen that the efforts to understand the phenomena that lead to change and transformation in urban structures and thus determine the urban forms are gathered under the general title of 'urban morphology' in urban planning, urban design and constitute a literature. Therefore, it is possible to say that urban morphology is one of the most studied and idea-generated areas of urban planning and urban design disciplines (Ayan, 2010, p.3).

Bursa, besides being the fourth largest city in Turkey, has always been an important city due to its historic, cultural, social, and economic background. This diversity has shaped and changed the city socio-culturally, economically, and architecturally. The city was home to many civilizations such as Bithynia Kingdom, Roman and Byzantine Empires, until it was conquered by the Ottomans in 1326. During the Ottoman period, the city was shaped with a unique urban settlement idea and the city preserved its urban fabric until the 19th century. Bursa, in addition to being the first capital of the empire during the Ottoman period, has important industrial, agricultural, and commercial features as it is close to the second capital İstanbul. In the 20th century, changes occurred in the physical and architectural features of the city due to industrialization, migration, and globalization. Although the city has been affected by these developments, the historic city center has preserved its position and character with minor changes (Gönül et.al., 2017). The city was included in the UNESCO World

Heritage List in 2014 with its cultural heritage values. The historic city layers that continue to exist in the city center still have a strong influence in the city center. However, although the urban spaces that shape the collective memory of the city continue to be a part of daily life, the city center has undergone various transformations throughout history.

When the place of the study subject in the literature is investigated, there is a diversity of studies conducted at the international level and dating back to ancient times, while there is a general increase in the studies conducted on urban morphology in Turkey in recent years. However, according to the detailed literature research, no scientific study has been found that uses urban morphology methods targeted within the scope of the project proposal for the city of Bursa and deals with cartographic inventories by digitizing and analyzing them. In this context, it can be said that this thesis study contributes an original study about Bursa to the literature.

1.1. Main Questions and Hypotheses

Bursa has been among the important trade centers since its conquest and many khans were built in the city. The Khans District, which had been constituting the commercial and social center of the city of Bursa, that determine the identity of the city since earlier times. It is important to examine and define the urban characteristics of the Khans District of Bursa, which is one of the important historic and trade centers of Turkey, in different periods, and to reveal the change in urban characteristics between periods. The study area still bears the traces of its multi-layered physical and social structure and provides the necessary quantitative and qualitative data for morphological analysis. It has been investigated to what extent the development plans made in the Early Republican Period and the development policies implemented during the urban development process of Bursa affected the city center. The research aims to examine and determine in detail the change process, reasons, and results of Bursa in and around the Khans District between 1862 and 2018.

1.2. Objectives of the Study

When looking at Bursa's historic evolution, it's clear that the city has gone through three significant structural transformations. The construction of a bazaar system

centered outside the castle in the second half of the 14th century was the first of these developments, and the city became a strong focus that controlled the city's development dynamic and identity (Tekeli, 1999, p.1). Silk making, trade routes, tradesmen organization and foreign traders played an important role in the development of Bursa's trade in the 16th century. The accelerated trade circulation until the 18th century and the change in the transportation system in the 19th century strengthened the position of the city; however, it caused the destruction of many monumental buildings.

The second is the city's reorganization in the second part of the nineteenth century, which was influenced by Ottoman modernity. In the Republican Period, there was a transformation in the region, especially with the effects of urbanization in the 1950s and industrialization in the 1970s. During the Ottoman Empire Period, many buildings emerged to meet the needs of commercial life. These buildings are *Bedesten*¹, which consists of bazaars and shops, commercial buildings such as khans and *Arasta*²s supporting this trade settlement were also built. The khan buildings with their establishment and construction purposes have an important place in the shopping culture of the Ottoman Period (Gürpınar, 2009, p.36). In the 19th century, both contemporary and traditional buildings were reflected in the physical space. In and around the Bedesten, there were different commercial buildings consisting of a traditional bazaar, banks, office buildings and silk factories.

The third is the urban transition brought about by Turkey's post-World War II urbanization and Bursa's subsequent industrial expansion, particularly after the 1970s (Tekeli, 1999, p.1). In the 20th century, the change in the transportation system in line with the urban planning projects strengthened the position of the region in the city but caused the demolition of many monumental buildings. Industrialization started in Bursa with the Republican Period and its reflections on the city were clearly seen (Akkılıç, 2003).

The main purpose of this study is to examine the spatial and architectural

¹It is a type of building that was the center of the Ottoman trade area within the bazaar and where products were stored and sold (TDV, 1992, p.302).

² A bazaar consisting of covered shops lined up on both sides of a street and selling the same types of products (TDV, 1995,335).

transformation of the historic city center of Bursa during the mentioned periods with the urban morphology method, and to determine the factors behind the evolution and change of the physical form of the Khans District located in the historic city center of Bursa between 1862 and 2018. The study is also a documentation study on the physical condition of the historic Atatürk Avenue, on which there are many qualified historic buildings due to its multi-layered urban fabric. For this purpose, morphological analysis methods developed by M.R.G. Conzen are used by using maps, drawings, and cartographic materials.

Although the study covers a period of approximately 150 years between 1862 and 2018, it focuses on the Early Republican Period, due to the important transformations in the city center of Bursa together with the emergence of modern building typologies. In this context, depending on the cartographic sources used for the spatial transformation of the Khans District in Bursa;

- First, the social, cultural, and economic infrastructure of Bursa in the period up to the 1860s were examined, and the determined components (urban fabric, urban circulation network and land use pattern) that constitute the city were described. Accordingly, a redrawn map of 1862 was processed with the data obtained, and the spatial equivalent of the change was determined.

- Secondly, the infrastructure of social, cultural, and economic changes affecting Bursa city center between 1860 and 1930 were examined and related spatial changes were read on the redrawn 1909 and late 1920s maps.

- Then, the socio-cultural, demographic, and economic changes that affected Bursa and the study area between the years 1930 and 1960 were investigated and the data were processed on the redrawn map of 1957 to put forward the changes.

- Finally, the planning studies affecting the urban development and transformation of Bursa from the 1960s till today was investigated in the light of social, cultural, and economic factors, and the status of the study area was read on the 1989-dated map and 2018 master development plan. In addition, it is aimed to read the urban and spatial changes by superposing the maps of two consecutive periods.

Discussing the physical evolution of the Historic City of Bursa between 1862 and 2018 through urban morphological analysis, revealing the physical formations and transformations of the study area by emphasizing the relationship between urban form,

socioeconomic factors and planning activities, analyzing the transformation phases, investigating the aspects of continuity and change. It is aimed to discuss the morphological evolution, to determine the effects of the institutional framework, current regulations and especially the development plans on the evolution of Bursa Historic City Center and Khans District, to define the original urban features of Bursa's Historic City Center, which are partially or completely lost today, and to create a methodology.

In addition to these, with the urban morphological approach determined as a method, it is aimed to determine the type of deformations in Bursa city and the type of changes in the social structure in parallel with the transformation in the physical structure. Within the scope of the thesis, the analyses made in order to examine the physical transformation of the urban fabric in the Bursa Historic Khans District, will guide the decipher of the changes in the area.

No scientific study has been found regarding the city of Bursa that uses urban morphology methods and deals with cartographic inventories by digitizing and analyzing them. In this context, it is thought that the thesis is an original study about Bursa city.

1.3. Urban Morphology as a Method of Urban Analysis

M.R.G. Conzen (ISUFTurkey, 2016), an important scientist and urban geographer who developed the analysis methods and mapping techniques of today's urban planning and urban design applications, states that the urban patterns produced at different scales of the city. The urban pattern components stated by Conzen (1969) as: streets, building blocks, parcel and building plans come together as city plan, building fabric and land use pattern. Within the scope of this study, the morphological change of the Khans District in Bursa, determined as the study area, will be examined through the urban structural elements that form the region within the framework of Conzen's urban morphology approach.

For this purpose, maps produced with different techniques were used to compare different periods of Bursa Khans District morphologically. The examination and data processing started from 1862, as the oldest and most reliable visual document obtained (1862-dated Suphi Bey Map), and the maps of 1909, late 1920s, 1957 and 1989 were

superposed and compared with the latest 2018 master plan. It is aimed to bring the maps in question to the same level and to ensure the readability of change and continuity, to examine the transformations in the urban fabric and the relationship of historic and contemporary architecture in this area with urban formation, to create a database by transferring the obtained visual material and drawing inventory digitize and to analyze digitally.

For the map of each period, unchanged reference buildings and monuments such as the Citadel, Ulu Mosque, khans, and some common streets and avenues located in approximately homogeneously distributed points of the study area were superposed and the maps were digitized. It is aimed to eliminate it in a way that allows high comparison.

The formation of urban fabric features from upper scale to lower scales in the pattern of building/open area/parcel/ building block/ street /neighborhood/ district were analyzed. During the visual and formal analysis of the work in line with the determined target, it is aimed to simplify the urban fabric and architectural features, and to show the diversity and richness in various stages. The method considered in this study was redrawing the maps of different quality to bring them to the same level, in order to reveal and compare certain common components determined as ‘urban fabric character’, ‘urban circulation network’, and ‘land use’, to uncover and analyze the physical continuities and the changes in the evolution process for each period.

1.4. Definition of the Study Area

In this section, the boundaries of the study area and the periods of research are specified.

1.4.1. Study area and periods of research

Within the scope of the thesis, the study area encompasses the area defined by the Khans District (Orhan Gazi Complex and its surroundings) registered in the UNESCO World Heritage List (Figure 1.1), with a secondary emphasis on Atatürk Avenue, which is the oldest transportation route of Bursa. The study area comprising the Khans District is bordered by Cumhuriyet Avenue on the north, Atatürk Avenue on the south, the Citadel (Hisar) on the east, and Heykel Square on the west (Figure 1.2).



Figure 1.1: Historic districts of Bursa in UNESCO World Heritage List (Url-1)



Figure 1.2: Location of Bursa City and the study area on Google Earth, edited by the author.

In this context, in line with the cartographic materials obtained, the historic, social, cultural, and physical transformation of the study area located in the historic city center of Bursa was investigated in three periods as: Pre-Republican Period (1862-1924), Early Republican Period (1924-1957) and Republican Period (1957-2018).

1.4.2. Use of the method of morphological analysis and documentary sources

Conzen (1960), who emphasizes the concept of urban landscape while describing the city plan analysis method, stated that the geographical character of cities can be read through their urban landscapes. He states that the urban landscape is the whole of the city plan, building pattern and land use characteristics. While defining the city plan among these three components, Conzen (1960) made determinations on the basis of these components in the morphological analyses he made by focusing on the street pattern, mass-open space relationship, building block-parcel (or building lot) relationship, building-parcel relationship and land use characteristics. Within the scope of the study, the morphological change of Bursa Khans District was examined in detail in the context of street pattern, mass-open space, building block-parcel and parcel-

building relations through graphics depending on the plan-based data parallel to Conzen's morphogenetic approach through the structural elements that formed the region. In addition, a hybrid contemporary urban morphology study was conducted using different morphology approaches with the data brought by the study area.

In the study, the transformation of the Khans District and its surroundings were examined morphologically, the characteristics and transformations of the defined period were analyzed in the context of the urban fabric, urban circulation network, land use and ownership pattern depending on the visual and historic data on maps of the related periods.

For this purpose, maps produced in the defined period with different techniques were used to morphologically compare the examined phases of Bursa Khans District. The examination and data processing started with 1862-dated Suphi Bey Map, as the oldest and the most reliable visual document obtained, and continued with the maps of 1909, late 1920s, 1957, 1989 and 2018 respectively. The maps of 1862, 1909, late 1920s and 1957 were brought to the same scale and quality digitally by superposing with the latest technological photogrammetric map of 2018 to eliminate the deformations and bring them to the same level as much as possible and then superposed sequentially. Especially for the two oldest and most deformed maps of 1862 and 1909- the historic, monumental buildings such as the Citadel, Ulu Mosque, and the khans, located approximately at homogeneous points of the study area, were taken as references during superposition, to remove the deformations of these maps.

1.4.2.1. Visual sources

Maps, plans, cadastral plans, aerial photographs

In order to reveal the physical urban and architectural characteristics of Bursa Khans District at different consecutive intervals, a number of available old maps produced at different years with different techniques and scales were used. When the environmental information coming from the maps was insufficient, aerial photographs and ortho photographs of different dates (obtained from Bursa Metropolitan Municipality and General Command of Cartography) were used.

- **1862-dated Suphi Bey Map:**

Although its name is mentioned as the 1862-dated Suphi Bey Map in the literature, it was originally the first modern development plan in Turkey prepared for Bursa after

the earthquake in 1855 (Kaplanoğlu, 2008, p.73). According to this map drawn under the presidency of Suphi Bey, one of the Ottoman *Erkanı-Harbiye*³ commanders, the city is bounded on the east by the Yıldırım and Emir Sultan Complexes, and on the west by the Muradiye Complex. Houses with gardens, governmental, commercial, and religious buildings, streets and avenues, factories, and cemeteries are indicated on the map with their names (Batkan, 1996, p.274).

The oldest map of the city of Bursa is the map drawn in draft form by the German traveler Carsten Niebuhr in 1757. When the Suphi Bey Map and the 1757-dated Niebuhr Map are compared, Bursa's city borders have remained relatively unchanged for nearly a century. However, after 1857, urban development began (Kaplanoğlu, 2008, p.72,73).

The map provides information about the size of the city, the settlement pattern, the natural elements that shape the city, and the areas suitable for growth. Therefore, this map is an important document for the planned development process of Bursa (Figure 1.3).

- **1880, 1907 and 1909-dated Maps**

1880-dated map it is the first map showing the urban fabric after the 1862-dated Suphi Bey Map. 1/1000 scaled Insurance Map of 1880 was prepared by a French company (Figure 1.4). The important feature of the Insurance Map is that the names of streets, monuments, schools, and factories are engraved on the map (Kaplanoğlu, 2008, p.74).

After the 1880-dated map, there is another 1/10,000 scaled map published in the 1907-dated *Salname* (Kaplanoğlu, 2008, p.77). This map contains information about some religious and monumental buildings, schools, and factory buildings. In addition, building blocks, roads, cemeteries, green areas, and streams are shown (Figure 1.5).

The Sewage Map prepared by the French after the 1880-dated map has a scale of 1/6000. Information such as streets and street names, religious and monumental buildings, and cemeteries are included on the map (Figure 1.6). All old maps have

³ These are informative publications published annually by the central government, ministries, military institutions, provinces, and some private institutions and individuals in the Ottoman Empire (Aydın, 2009, p.51).

different deformations due to the methods of the period. All of them are separately corrected with the most current and accurate map.

- **1921-dated Bursa City Map**

This 1921-dated Bursa City Map with 1/8000 scale was prepared by the German Union during the Greek occupation of Bursa and was completed by Keşfiyat ve İnşaat Türk A.Ş. (Polat, 2011, p.172). The railway and main roads of the city directed the city development towards north mainly. It is seen that there is no significant change in the urban fabric due to the Greek population leaving the city and related decrease in the population (Köprülü-Bağbancı, 2007, p.85).

Streets, monuments, cemeteries, parks, gardens, and streams are shown on this map. However, the building blocks that compose and reflect the urban fabric are not shown or can be read (Figure 1.7).

- **1924-1932-dated (late 1920s) Bursa Cadastral Map**

Bursa Cadstral Maps prepared between 1924 and 1932 at 1/500 scale (united into one map afterwards) by A. Feyzi, A. Muhtar and N. Muhsin. Parcels, general footprints (locations) of buildings on these parcels, building blocks composed of the parcels, streets, avenues and squares along these building blocks and street names, are shown on this map (Figure 1.8).

- **1957-dated Bursa City Map**

The map was prepared by the Bursa Master Plan Bureau in 1957 with 1/2000 scale. Streets, building blocks, building entrances, trees, lighting elements and fountains can be seen on the map (Figure 1.9).

- **1989-dated Bursa City Plan**

1988 Bursa map was used as the base map of the Bursa Historic City Centre Conservation Development Project prepared by METU with 1/1000 scale (Figure 1.10). Governmental buildings, streets, names of the streets, public buildings and public open areas are specified in the plan.

- **2018-dated Bursa City Map**

The 2018-dated map is the latest and technically the most qualified map used in this study. The map produced by the photogrammetric method is with 1/1000 scale (Figure 1.11). This map shows the current situation of the area in detail. However, the function

of each building is not defined. At the same time, there are also names of many streets, public buildings and open spaces shown on the map.

By the superposition of the previous maps with 2018 map, the old maps were brought to the same scale and quality level as much as possible.

1.4.2.2. Written sources

Written documents that constitute most of the sources used in the study can be compiled in three groups as; master's and doctoral theses, archive documents, books and symposium books.

The general structure and methodology of this thesis is inspired by the PhD thesis of Elif Mıhçıoğlu (Bilgi) titled ‘*The Physical Evolution of a Capital City: Morphological Analysis of The Historic City of Ankara Between 1839 and 1944*’ dated 2010. This thesis analyzes the development of spatial forms depending on the changes in the socio-economic structure of Ankara in the specified periods. It is based on morphological analysis of redrawn historical maps and superposed them by associating the physical development of Ankara city with demographic and socio-economic data from different periods. It has set an example for the thesis study with its approach, context, and methods.

In the literature review, Sermin Çakıcı's doctoral thesis titled ‘*Evaluation of Conservation Activities in Bursa Focused on Preservation Board Decisions 1955 - 2012*’, among the studies on Bursa historical city center and Khans Region, includes the conservation decisions taken by the Preservation Boards in the historical city of Bursa and she identified, analyzed and evaluated the practices, made a chronological classification of the conservation activities in Bursa, described the conservation history of the city since the 19th century, and investigated the impact of changing legal regulations and local governments on the practices.



Figure 1.3: 1862-dated Suphi Bey Map (Bursa City Museum Archive)



Figure 1.4: 1880-dated French Insurance Map of Bursa (Bursa Metropolitan Municipality Archive)



Figure 1.5: 1907-dated Bursa Salname Map (Bursa Metropolitan Municipality Archive)

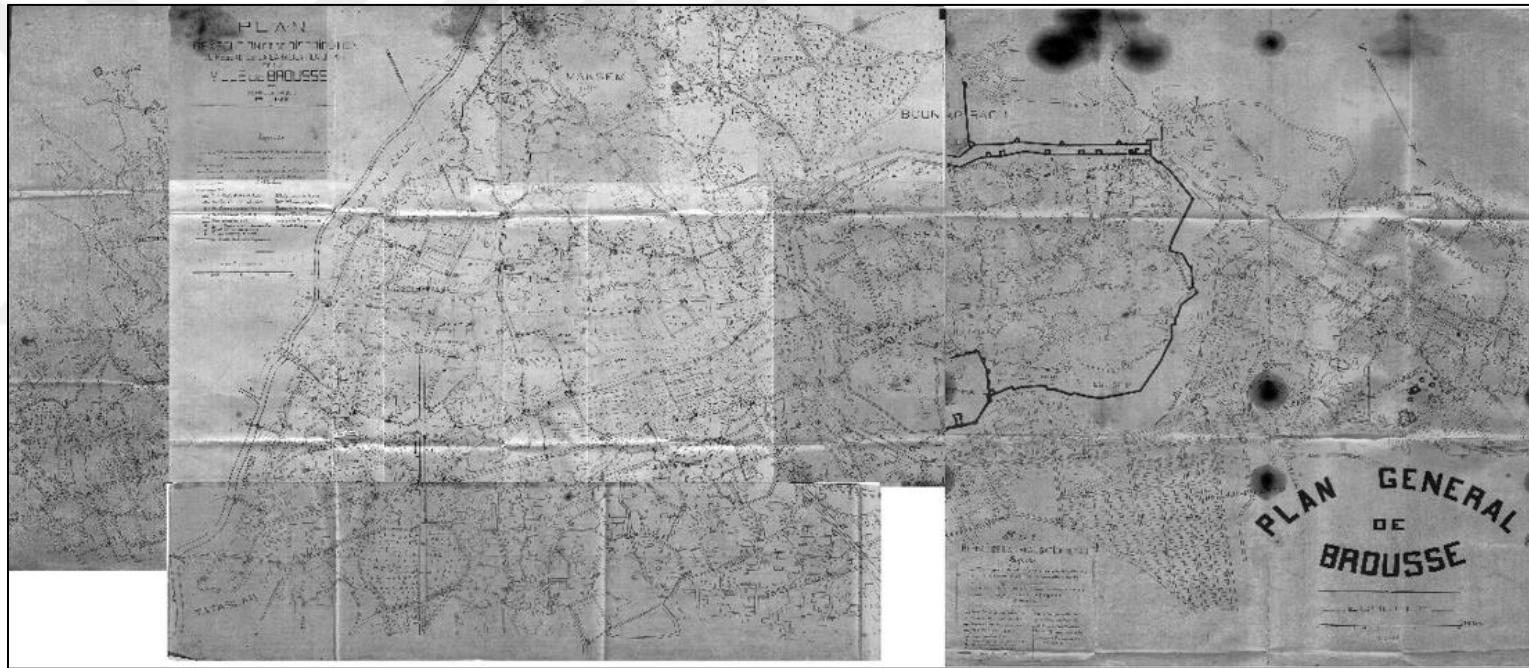


Figure 1.6: 1909-dated French Sewage Map of Bursa (Bursa Metropolitan Municipality Archive)



Figure 1.7: 1921-dated Bursa City Map (Bursa Metropolitan Municipality Archive)



Figure 1.8: 1924-32-dated (late 1920s) Cadastral Map (Bursa Metropolitan Municipality Archive)



Figure 1.9: 1957-dated Bursa City Map (Bursa Metropolitan Municipality Archive)

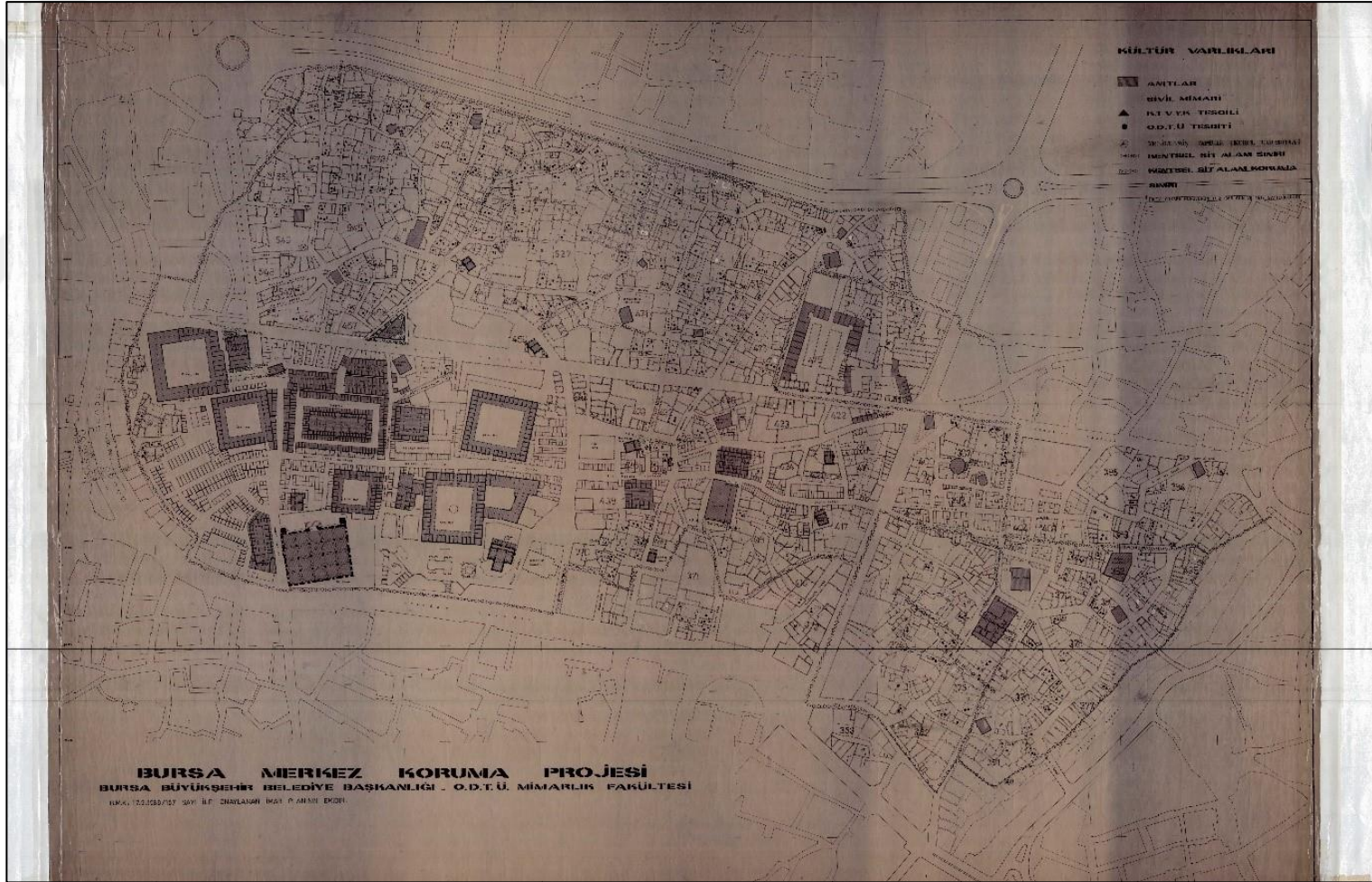


Figure 1.10: 1989-dated Bursa City Plan prepared by METU (Bursa Metropolitan Municipality Archive)

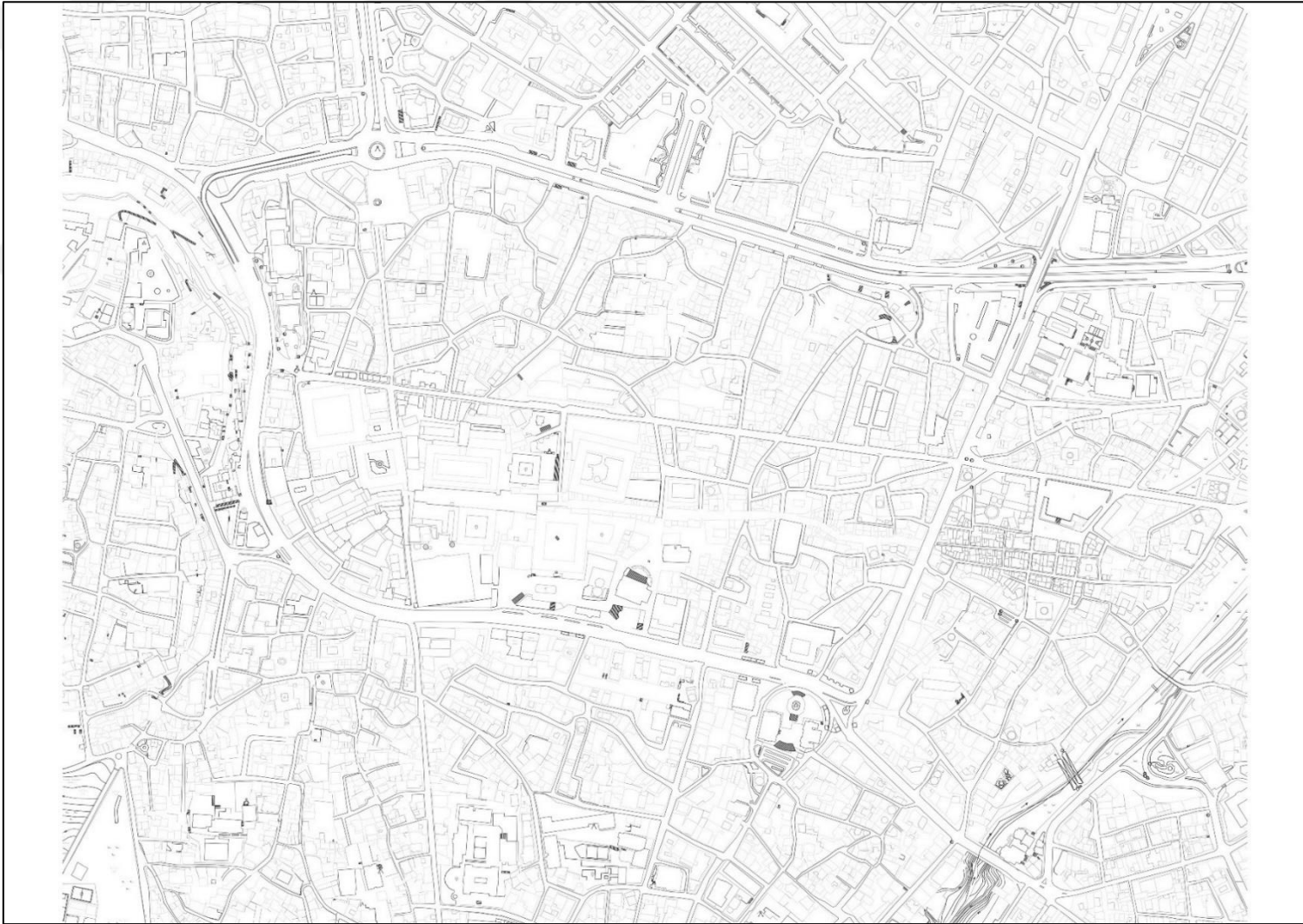


Figure 1.11: 2018-dated Bursa City Map, converted from dwg format by the author (Bursa Metropolitan Municipality Archive)

In Zeynep Dörtok Abacı's doctoral thesis titled '*Spatial and Social Change of the City of Bursa in the Modernization Process (1860-1910)*', which was also encountered in the literature research, the urban development of Bursa and the general appearance of the city were discussed historically to show the change. In addition, in Özlem Köprülü Bağbancı's doctoral thesis titled '*A Research on the Examination of the Change and Transformation Process of Bursa Khans District and the Protection of the District*', the periods that the region has gone through until today were researched, and the place and importance of the buildings examined at the scale of single buildings in the region were emphasized in the city as a whole, and the changes and transformations that the region has experienced within a physical, social and cultural framework from the 14th century to the present have been examined.

However, these theses did not emphasize urban morphology and are not used as a method but as informational sources.

Other sources used in the historic research part of the study are Engin Yenal's '*Osmanlı (Baş) Kenti Bursa*' prepared and published in 2011 prepared for publication by Bursa Metropolitan Municipality Bursa Research Center, and Hüseyin Gürsel Bilmiş's '*Tanzimat'tan Cumhuriyet'e Bursa'da Mimarlık Ortamı*' published in 2021 by Bursa Nilüfer Municipality Publications. Additionally, '*Bursa'nın Kentsel ve Mimari Gelişimi*' titled Symposium Book published in 2007, prepared by Osmangazi Municipality, '*Çarşı'nın Öyküsü*,' published in 2010, '*Bursa Kültür Varlıkları Envanteri: Anıtsal Eserler*' published in 2011 prepared by Bursa Metropolitan Municipality were also used.

In this context, other sources used in the historic research part of this study are periodical photographs and postcards. Parallel to the plan-based morphological analyses, the photographs provide necessary complementary information about the third dimension or architectural aspects of urban space. Bursa photographs from the mid-19th century to the 20th century in the Ottoman Period used in the research were compiled from several different sources, Bursa Photographs from the Mid-19th Century to the 20th Century in the Ottoman Period such as Vehbi Koç Foundation Publications, Bursa Metropolitan Municipality Culture Publications, Bursa City Library archives and the internet.

In line with the periods selected for the area studied in Bursa Historic City Center, the

source of the Map and Aerial Photograph Archives of General Directorate of Cartography (*Harita Genel Komutanlığı*) was also used in the urban morphology study. It is aimed to shed light on the analysis of the periodical changes of the area with historic aerial photographs.

1.5. Theoretical Framework

1.5.1. Urban morphology

Urban morphology, in its most general sense, is the study of the city as a human habitat. It examines the movement in space and aims to analyze the relations produced in the development process of social structure through urban space and urban patterns (Moudon, 1997, p.3; Ünlü, 2018, p.64). Urban morphology emerged as a method of urban and architectural analysis in Europe in the 1950s. It can be said that there are three different main approaches in urban morphology. The first is the English morphogenesis approach, which is developed by the geographers, the second is the Italian typo-morphological approach and the third is the French typo-morphological approach developed both by the architects. These different approaches were brought together in 1994 at the International Seminar on Urban Form (ISUF) (Mıhçıoğlu-Bilgi, 2010, p.23).

British school approach

The British Morphogenetic Approach, is known as the Conzenian School, depends on the ‘townscape’ analysis method, which is the ‘three-dimensional form of urban space’ developed by Conzen (1907-2000). The main purpose of this approach is to define the physical form and enlarge the theory of urban settlement and urban development (Mıhçıoğlu-Bilgi, 2010, p.24), and includes studies to define the urban form and explain how and why cities are built. They are generally geographical approaches and are seen in the Birmingham school. However, this aim was also taken into consideration in the morphology studies conducted in the French school (Moudon, 1997, p.8).

Italian school approach

The pioneer of the Italian typo-morphological approach, also called the Muratorian school, was Saverio Muratori (1910-1973). He investigated the transformation processes of Italian cities especially Rome and Venice and their effects by examining the housing typology, which is the basic type of urban fabric (Mıhçıoğlu-Bilgi, 2010,

p.25). The operational history approach developed by Muratori aims at architectural production together with the production of historic information about the city. These studies, called typomorphology, create the urban form by classifying the buildings and the spaces between them in detail. Typomorphology has a wide range as a working scale, and a scope that can spread from a small room to an urban area as a study area. In addition, while evaluating the area it deals with, it also considers the moment of formation of the area and its subsequent components. Therefore, he argues that the urban form or structure cannot be understood if it is not evaluated according to the time it was built (Muratori, 1960) This normative approach, which aims to develop an urban design theory of urban form, focuses on how cities are built and takes historic building and urban construction techniques as its focal point. Some French researchers also exhibited this attitude in their morphological studies (Moudon, 1997, p.8).

French school approach

IPRAUS, an architectural research center in Paris, reunited Italian research concepts developed as the basis for typo-morphological research with historic stratification analysis in the context of socio-economic conditions, which is the basis of French typomorphological studies. A second school, like IPRAUS, began the study of urban typomorphology in Paris in the late 1960s. Also known as the Versailles School, is based on Italian ideas on typo-morphology, but has a more ‘theoretical-normative’ nature. The important part of the method is the theory that previous transformations cause new spatial construction (Mihçioğlu-Bilgi, 2010, p.26). It considers the effects of past design theories and criticizes them as ideological and practiced. In this direction, the French School carried out studies that followed the traces of modernism in urban planning practices in the 18th century (Moudon, 1997, p.8).

Aiming to produce theories on urban scale, all three schools contributed to the development of different theories with different approaches. Moudon classifies the approaches of these schools as follows.

1. The approach that aims to produce city building theories by explaining and describing the urban form; especially in geography-based studies and is seen in the Birmingham School. Social scientists working in the French school also adopted this approach in their morphology studies.
2. Prescriptive approach aiming to develop theories on urban design; it focuses on how

cities are built. This approach, seen in the Italian School, aims to develop theory by focusing on historic building and urban construction traditions.

3. Approach that considers the effects of past design theories. This approach considers and criticizes design theories as intellectual and practical. In line with this approach, the French School carried out studies that followed the traces of modernism in urban planning practices in the 18th century (Moudon, 1997, p.7-8).

Conzen stated that the urban patterns produced at different levels of the city at lower, middle, and upper scales are formed by the integration of each other. Conzen (1960) suggests that the geographical character of cities can be read morphologically through the urban landscape. However, Conzen stated that it is not enough to consider the studies on urban landscape geographically because they are not based on sufficient scientific foundations. He criticized the fact that urban morphology studies were based only on geographical maps and argued that urban landscape components should also be included in the research content. Conzen divided the urban landscape into three components in his studies (Figure 1.12):

1. Town Plan/Ground Plan: Site, streets, plots, and block plans
2. Urban Building Fabric: 3-dimensional form
3. Land Utilization Surveys: Land-use plans

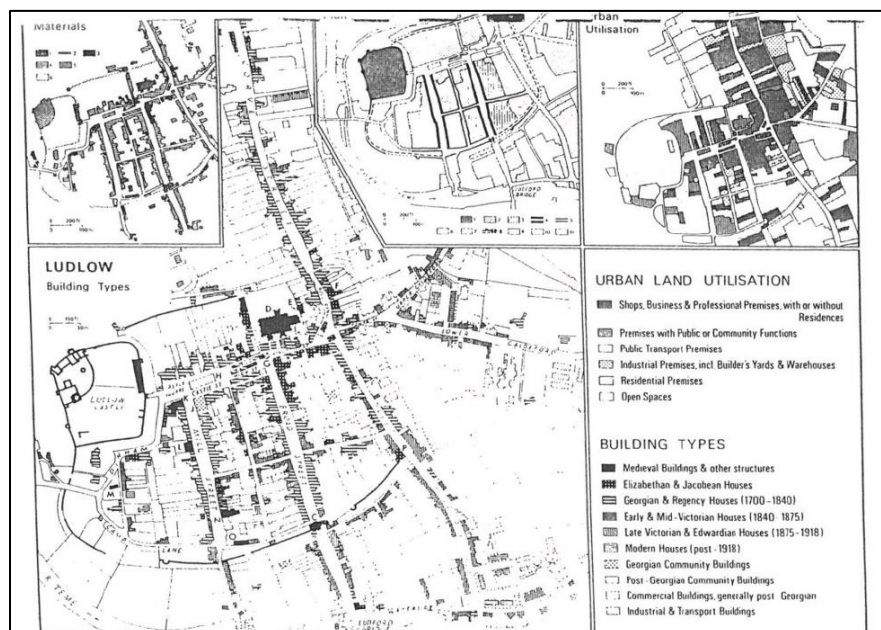


Figure 1.12: Urban landscape components (Conzen, 2004, p.120)

These three components town plan, urban building fabric, land utilization surveys are divided into three components: city plan and street system, land and building blocks, building, and building boundaries (Figure 1.13).



Figure 1.13: City plan and street system, land and building blocks, buildings and building boundaries (Şahin, 2019, p.24)

The street represents the empty space delimited by the buildings and the street lines and reserved for traffic. Adjacent areas connected to each other define the street system. Areas completely or partially delimited by the streets define the building blocks; Each building block creates a parcel (building lot) or group of parcels, each parcel creates a physical land use with its borders, and this creates the land. The building boundary defines the area covered by the walls of the building on the ground and forms the essence of the city plan. These three defined components ‘street, building block and building’ create unity in different conditions for each city. These findings are not only about the physical structure of cities, but also include information about the socioeconomic development of cities. While defining the urban landscape and its components, Conzen also mentioned the historic changes that cities and urban parts have undergone. Each component carries certain traces from the time in which it was formed and transmits these traces. These traces also play an important role in conveying the development of that city in city plan analysis. Conzen stated that the development plans to be proposed for a city that has been analyzed according to its current conditions will also have a healthy content (Şahin, 2019, p.23, from Conzen, 1960, p.1-9).

In this context, the effects of the historic, economic, and socio-cultural change of the Khans District in the city center of Bursa from the point of the urban fabric will be examined and discussed in this thesis study.

2. EVOLUTION OF SOCIETY AND SPACE OF BURSA HISTORIC CITY CENTER IN THE PRE-REPUBLICAN PERIOD

2.1. Geo-morphological Structure of Historic City of Bursa

Environmental factors affect the shape, development, and size of cities. It can be mentioned about the construction and evolution of some cities based on geomorphological foundations. In the city of Bursa, settlements are concentrated in the lowland areas where the altitude is low, and there are no urban settlements in the mountainous areas where the altitude is high. This shows that natural conditions are effective on settlement (Figure 2.1) (Şerbetçi, 2017, p.14-22).

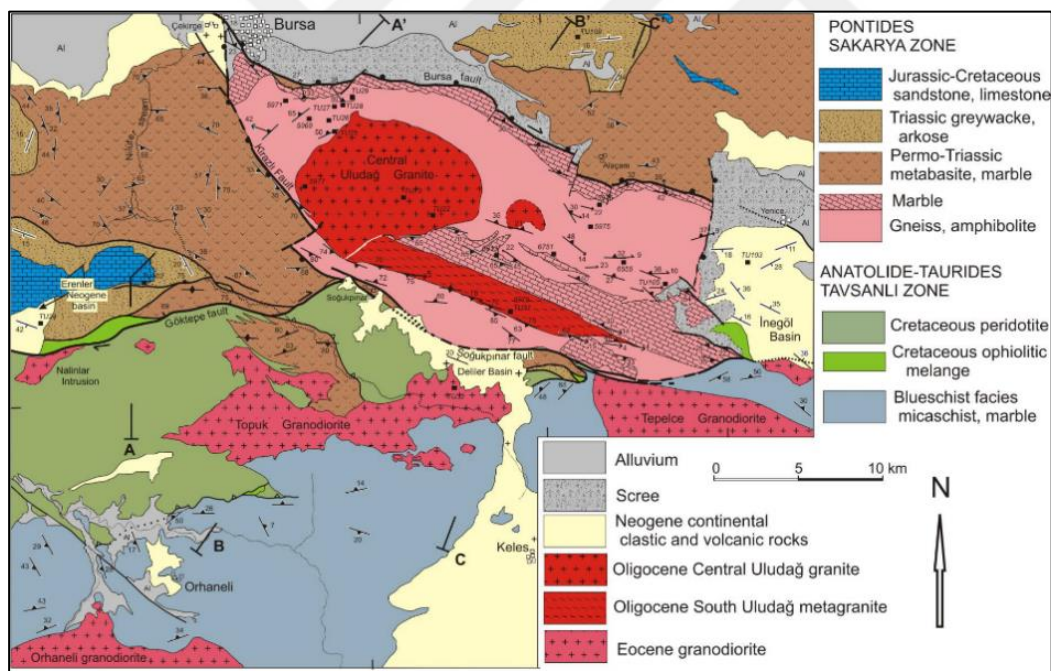


Figure 2.1: Geo-morphological structure of Bursa (Dağ,2017, p.642)

Bursa is on the northwestern foot of Uludağ, on the southern edge of a plain separated by the Marmara Sea coastal mountains (Mudanya Mountains) from the sea. The city was founded on the northwestern outskirts of Uludağ, on a sloping position on the plain's southern side. The lower western half of the city now contains most of the city. The city settlement is spread out, ascending towards the mountain's slopes, and

descending towards the plain (İnalçık, 1992, p.445). The core of Bursa is formed by the districts between Gökdere, which descends from the northern slopes of Uludağ, and the deep valleys of the Cilimboz Stream (Seyhan, 1992, p.450) (Figure 2.2).

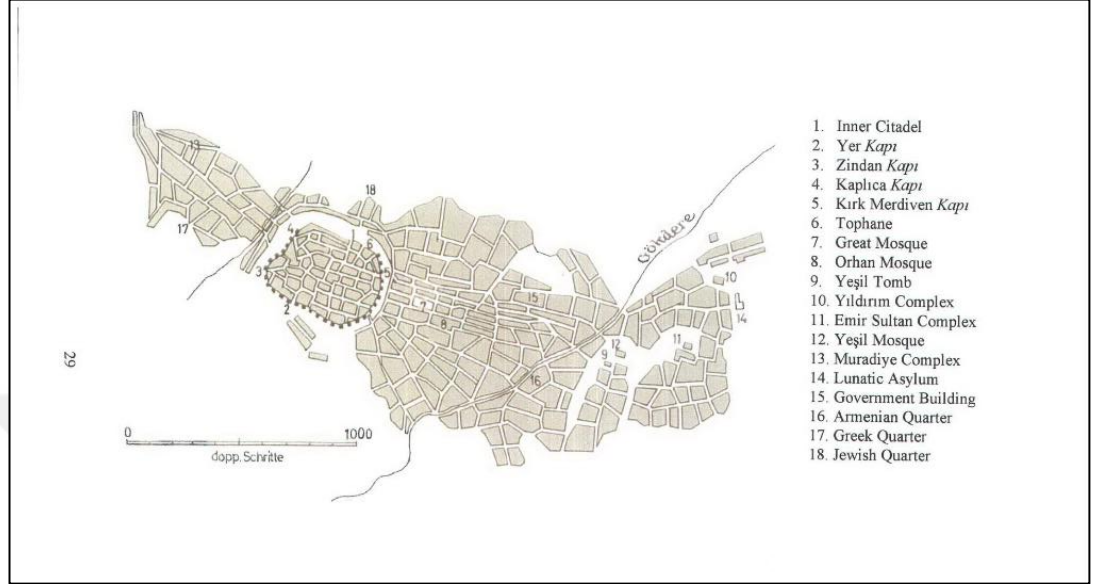


Figure 2.2: 1757-dated Niebuhr Map of Bursa prepared by Carsten Niebuhr (Kaplanoğlu, 2008, p.72).

Another factor limiting the development of the city in the south is topography. It limits the settlement area on the east and west and partially on the north, except for Küçükdede Hill. It is in the form of a linear city with the spread in the east-west direction (Şerbetçi, 2017, p.26).

2.2. Historical Background

Bursa is a city that has hosted many civilizations and has a history of 2200 years. The city had been lived under Roman rule and had come under Byzantine rule after the division of the Roman Empire into two parts. Bursa joined the Ottoman Empire in 1326 and served as the first capital of the Ottoman Empire until İstanbul became the capital in 1453 (Bulut, 2019, p.2).

In 185 B.C., King of Bithynia Prusias I. founded the city of Prusiasad Olypnum, which was surrounded by walls on a hill, with the suggestion of Carthaginian General Hannibal (Dostoğlu, 2001, p.21). After the Bithynia period of about 250 years, it was annexed to the Roman Empire in 74 B.C. With the division of the Roman Empire in

395, the Byzantine period began and continued until the conquest of the Ottoman Empire in 1326 (Gedik, 2015, p.43).

Before the city of Bursa was conquered by the Ottomans, it was located in a limited area within the Citadel. As in the great Roman cities, there was a library, stadium, bath, hippodrome, and an area with columns. During the Byzantine period, an inner castle was built next to the palace. This inner castle was used as a palace when Bursa was the Ottoman capital (Gönül, 2017, p.15).

With the arrival of the Turkish population in Bursa, great changes have occurred in the urban fabric. With the attacks to take the region, the people in the surrounding villages took shelter inside the walls, and the rapid population growth caused the unplanned settlement (Kaplanoğlu, 2018, p.72).

Bursa was taken by the Ottomans in 1326. The city consisted of a settlement inside the castle and two Greek quarters and a Jewish quarter in a place called 'Tahtakal'a'. The core of district of the Khans, which is still the main center of the city today, consisted of a mosque, madrasa, hospice, and bazaar that Orhan Gazi had built outside the city walls in the east of the Citadel in the 1340s. The social complexes and their surroundings were built by Murat I in Çekirge (1370), by Yıldırım Beyazid in Yıldırım (1390), by Çelebi Mehmet in Yeşil (1420), by Murat II in Muradiye (1440). Settlements belonging to different ethnic groups have formed the background of the historical organic urban fabric of Bursa (İlhan, 2019, p.121). When the urban settlement of Bursa was examined in the middle of the 18th century; according to the Niebuhr Map of 1757, it is observed that the settlement was formed in the east and west of the Citadel, and there were no settlements, especially in the southern part of the Citadel (Bulut, 2019, p.3). Also, as an important trade center in terms of being on critical trade routes and having capital accumulation because of silk production, has developed towards the northern and western lands beyond the walls with the complexes and residential settlements built around it (Dostoğlu & Oral, 1999, p.234).

2.3. Bursa in 1862

In this section, the social, cultural, historic, and economic developments that affected Bursa Historic City Center and Khans District until 1862 are examined.

2.3.1. Social and economic structure of Bursa till 1860s

The city of Bursa has served as a bridge between east and west for silk and other properties coming from the east since the 14th century. During this period, many goods were to be found in Bursa bazaars (İnalçık, 1969, p.108). Silk trade, which started in Bursa in the 14th century, led to the development of silk weaving. The city became an important silk trade city in the 15th century and the tax revenues obtained by the Ottoman state from silk in this period constitute a large part of the state economy (Dalsar, 1960, p.241). However, in these centuries, cocooning and raw silk production were not carried out in Bursa, and raw silk was brought from abroad (Aydın, 2007, p.229). As a result of the intense commercial activity in Bursa, many *kervansaray*s⁴ were built in the 15th century. Ipek Khan was built during the rule of Mehmed I, Mahmud Pasha Khan and Koza Khan during the rule of Mehmed II, and Piri Khan was built during the rule of Bayezid II (İnalçık, 1992, p.445).

In the 16th century, during the rule of Yavuz Sultan Selim, the embargo imposed on silk from Iran in 1514 and 1518 affected the Ottoman state economically (İnalçık, 1996, p.108). However, the changes in the land arrangement, the development of transportation facilities and the changes in world trade in the 17th and 18th centuries brought the silk trade into a stagnant period in the city of Bursa (Aydın, 2007, p.229).

With the use of machines for spinning silk in 1828 in Lyon, France, which is considered the center of Europe's silk market, the standard thickness and quality problem of silk thread, which is required for weaving machines, was solved. After this development in Lyon, the first silk flement⁵ factory known as *filatür* in Turkish, was opened in Bursa 10 years later. Bursa began to take on the characteristics of an industrialized city in the mid-nineteenth century, producing cocoons and silk threads for European markets. The Ottoman administration's legislative and administrative procedures to aid investors who wanted to invest in the nation resulted in a quick growth in the number of foreign and non-Muslim investors employing foreign funds in the city. The production of cocoon and silk thread was the engine that moved Bursa's

⁴ Kervansarays are the khans built on the roads between cities and serving various needs. Merchants stayed here temporarily and sold the goods they brought with them (Eryavuz, 2022, p. 299).

⁵ Factories where silk is drawn.

economy forward in the nineteenth century (Abacı, 2006, p.13). In 1844, a silk master arrived in Bursa and opened a silk workshop, teaching people how to design a new style of silk. In the 1840s, İsmet Pasha attempted to import European style and weaving machinery to Bursa. In Bursa, mass-production began to be mechanized around 1850. Bursa's silk was mostly exported to England and France. Bursa-based foreign silk merchants were buying Bursa-produced silk to process in their European mills. However, as a result of the strike wave in Lyon between 1831 and 1834, European manufacturers began to construct factories using European technology in Bursa (Akıncı, 2016, p.24). However, in the mid-century, some capital owners' manufacturing workshops and factories were established in many centers of Ottoman Rumelia and in centers such as Bursa, Aleppo, and Tripoli. In the 1850s, there were 8-10 factories producing silk thread in Bursa (Ortaylı, 2008, p.235).

The city had two industrial zones and a distinct commercial core after 1860. The Cilimboz Stream provided the greatest industrial zone, while Gökdere Stream provided the second. Local minorities lived in traditional houses along the banks of the Gökdere Stream, and their closeness to the streams, as well as the presence of dwellings occupied by local minorities (Figure 2.3), were the primary factors that made a place appropriate for filature factories (Aslan, 2020, p.139). Small-scale weaving and sericulture operations, which were mostly done on hand looms, were the mainstays of the Gökdere industrial zone's output. In comparison to the past, there was no significant change in the technical structure of these companies. Workers in this industrial zone constituted 10% of the city's population. Most of the workers were non-Muslim women (Kağıtçıbaşı, 2016, p.239).



Figure 2.3: Traditional houses were placed along the banks of Gökdere Stream, where local minorities lived (Dostoglu, 2001, p.122)

Bursa's industrial growth began in the city core and adjacent residential fabric. As manufacturing buildings became more distinct, they needed their own site, which included vegetation to function as a barrier with the surrounding urban fabric. The utilization of nearby buildings planned in varied spatial combinations was the characteristic of industrial buildings, particularly of the factories. As a result, the factories were consisting of two, three, or more buildings, instead of a single building, placed according to topography. Architectural pattern in city planning was differentiated by topographic factors (Aslan, 2020 p.124).

In the 17th century, Bursa came under the administration of the Anatolian Province and was a sanjak ruled by pashas with the title 'Hüdâvendigar', appointed from the capital city of İstanbul (Çelebi, 2009, p.36-38).

According to cadastral plans, Bursa had roughly 152 neighborhoods at the beginning of the 15th century. Its population progressively grew to 168 homes in the second half of the century. According to a register document from the time of Mehmed II, Bursa had 5000 homes and a population of over 30,000 people. In 1487, the number of houses increased to 6456 (about 37,000 people). The city, which remained nearly unchanged in the early 16th century, grew increasingly in the second half of the century, reaching to a population over 60,000 people according to the 1573 census. In Bursa, there were also non-Muslim communities at the beginning of the century, with 400 Christians,

600 Jews, as a total of 1000 people, and in the second half, with 3000 Christians and 1500 Jews a total of 4500 people. In the 16th century, the most crowded neighborhoods of the city were *Emir Sultan, Sultaniye, Hacı Baba, Yıldırım Bayezid, Cedit Yiğidoğlu, Reyhan Pasha, Hoca Enbiya, Umur Bey, Dâye Hatun, Şeyh Pasha, Murad Khan, Hamza Bey, Bayezid Pasha, Timurtaş* and *Kiremitçiöğlu* neighborhoods. In addition, in the 1530s, it was determined that there were eight *soup kitchens*⁶, 22 madrasahs, 18 mosques, 130 masjids, 10 *zaviyes*⁷ and 10 khans in the city. The city continued its demographic development in the 17th century (İnalçık, 1992, p.445-449).

When the population of the city is examined, it was composed of Muslims and non-Muslims. The administrators and the authorized persons on behalf of the city were Muslim men consisting of civil servants, ulema, soldiers and shopkeepers. The economic power of the city was held by Greeks, Armenians, and Jews (Kumaş, 2011, p.2).

In the 1860s, the population of Bursa ranged from 70,000 to 80,000, of which 60,000 were Muslims, 11,000 Armenians, 6000 Greeks, and 3,000 Jews (Güler et.al., 2016, p.654).

2.3.2. Urban structure of Bursa in 1862

In this section, the urban structure of Bursa Khans District in 1862 is analyzed under three morphological components as: urban fabric, urban circulation network and land use pattern.

2.3.2.1. Urban fabric in 1862

Bursa experienced the biggest earthquake of its history in 1855. Many buildings were damaged in the city and many lives were lost (Dostoğlu, 1999, p.28). The minarets of many mosques, the two minarets of the Ulu Mosque were demolished, and its domes had longitudinal cracks. Some of the khans in the trade center were completely demolished and some were partially damaged. The second earthquake, occurred 40

⁶ A charitable institution established during the Ottoman period to distribute hot food to the poor and madrasah students.

⁷ The place where Sufism education is given.

days after the first one, caused the further destruction of the urban fabric. In addition, the fires that occurred after the second earthquake threatened to the whole city, especially for the flammable timber buildings (Özaydın, 2017, p.15-27).

The area covered by Bursa in the 1862-dated Suphi Bey Map appears almost the same when compared to the 1757-dated Niebuhr Map. The organic housing pattern, consisting of a combination of houses and gardens, reflects the traditional Ottoman character of Bursa before the transformation. In the 1862-dated map, there was an organic street pattern in and around the Khans District. The ownership pattern consists of large and small parcels. However, there was a loose structure towards the periphery, consisting of less dense, partially separated, partially adjacent, buildings with gardens (Figure 2.4).



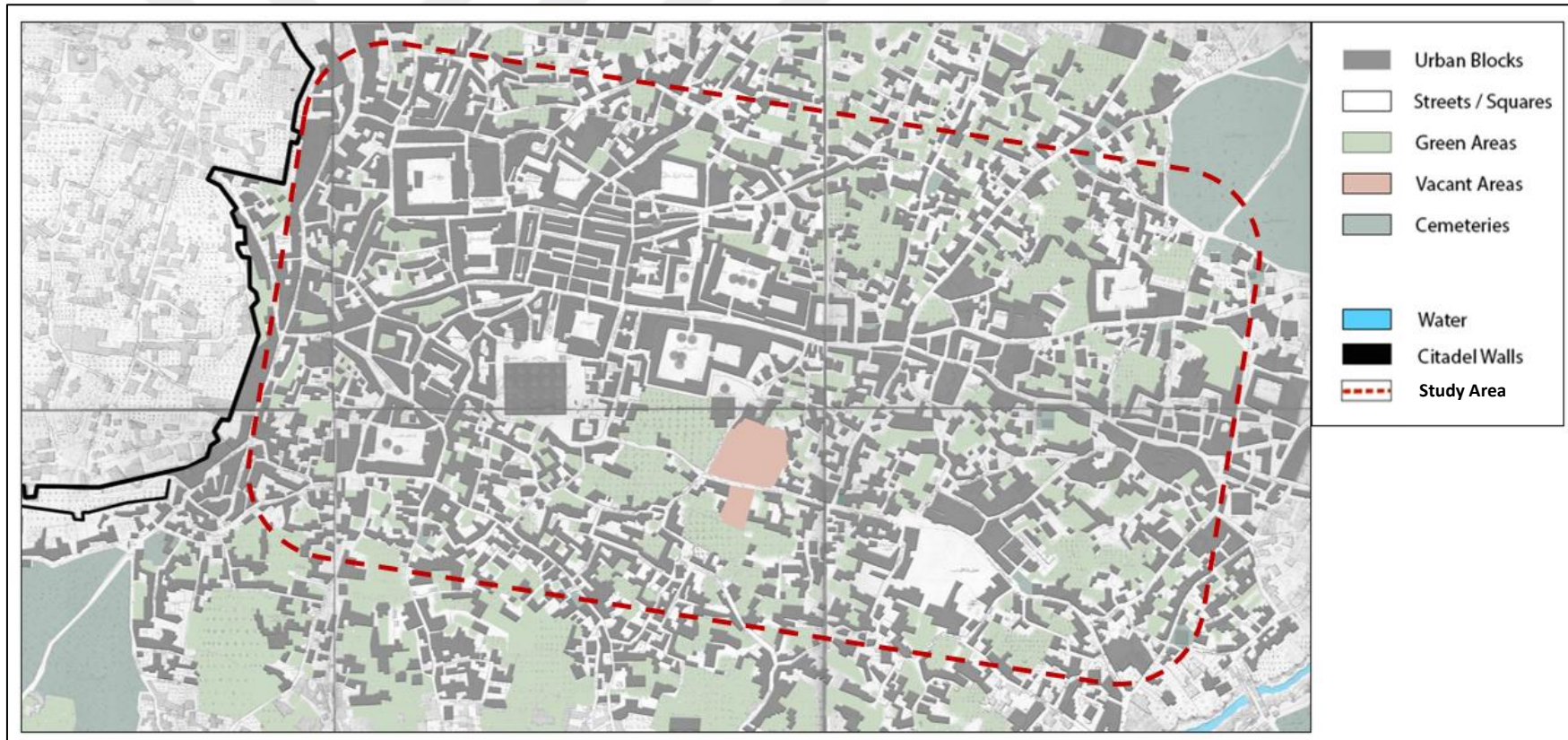


Figure 2.4: Urban fabric of the Khans District in Bursa in 1862 (Redrawn by the author after 1862-dated Suphi Bey Map)

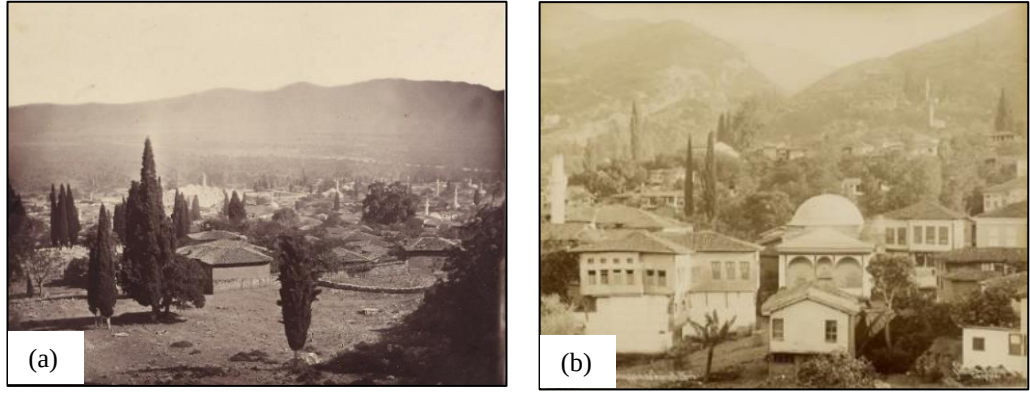


Figure 2.5 (a): Bursa Ulu Mosque, 1862 Alfred de Moustier (Url-2)

Figure 2.6 (b): Urban fabric of Bursa city, Sébah and Joaillier / 1880s (Url-3)

The capacity of Ottoman houses was not suitable and enough for division in order to respond to the rapidly increasing population. However, after the 18th century, the regulations-imposed limits on building heights, thus increasing the number of floors from two to three. Green areas have decreased, and rows of houses have been formed along the city streets. In other words, there has been an increase in the number of dwellings, not the number of neighborhoods. In the 18th century, small trade, and craft shops, only on the street front began to become widespread among the houses or on the ground floors of the houses is another reason for the concentration increase (Cerasi, 2001).

Following the construction of the *külliye*⁸s, the street pattern that connects the city's neighborhoods began to emerge. Bursa developed its distinct urban identity after the development of new districts until the 19th century with densely built timber-framed buildings with private gardens around irregular streets (Türkoğlu, 2002, p.33).

Bursa's residential areas were shaped around the sultan's complexes in the 14th and 15th centuries. In the following centuries, the empty spaces between these traditional quarters (*mahalle*) were filled with the organic housing pattern, and new residential areas were formed (Figures 2.5 and 2.6). The green spaces inside the neighborhoods gave the city a loose urban density character. Although Bursa was severely affected by various disasters over the centuries, it preserved its organic and loose structure until

⁸ It is a group of buildings formed by combining several structures with different functions. For example, mosque, madrasah, soup kitchen.

the mid-19th century (Türkoğlu, 2002, p.12) The first known disaster was dated to 1453 as the Karamanoğlu fires. Over the next 500 years, many fires and earthquakes occurred in the city. Archival documents report 30 disastrous events in Bursa during this period (Baykal, 1976, p.25).

Traditional quarters (*mahalle*) that determine the macro form of Bursa city have generally developed around religious buildings such as mosques or masjids (Figure 2.7). Sources indicate the existence of 7 quarters in the castle area after the Turkish invasion of Bursa in 1326. In the 14th and 15th centuries, after the establishment of the *külliyes*, this number increased to 150 in parallel with the rapid development of Bursa. It was recorded that there were 147 neighborhoods in Bursa in 1530. Due to the Celali Rebellions at the end of the 16th century, a large number of people migrated from the rural areas and around 22 new neighborhoods were added to the urban fabric, the number increased to 170 and remained this way until the middle of the 19th century (Kaplanoğlu, 1996, p.10).

The narrow and dead-end streets formed between the houses that were not built in accordance with a specific plan would open towards the masjid or the mosque. From this neighborhood, there was only one road called ‘Uluyol’ to reach other neighborhoods and the city center (Kaplanoğlu, 2008, p.39).



Figure 2.7: Bursa city view in the 1900s (Url-4)

The map is important in terms of showing the boundaries of the city. Covering the more distant districts of Bursa city, the map shows the buildings, also the agricultural

gardens of the houses. While counties such as Yıldırım in the east, Muradiye and Çekirge in the west were included in the map, cemeteries in the south and the Mudanya Road in the north, which would later be a reference for railway construction, were defined on the map. The city consisted of buildings and open spaces such as agricultural gardens and cemeteries covered with cypress trees. Warehouses and factories were larger scale, while houses were smaller scale architectural components of the city. The city exhibited an organic growth and a polycentric urban form through the multifunctional mosque complexes built before the nineteenth century (Figure 2.8) (Aslan, 2020, p.125).

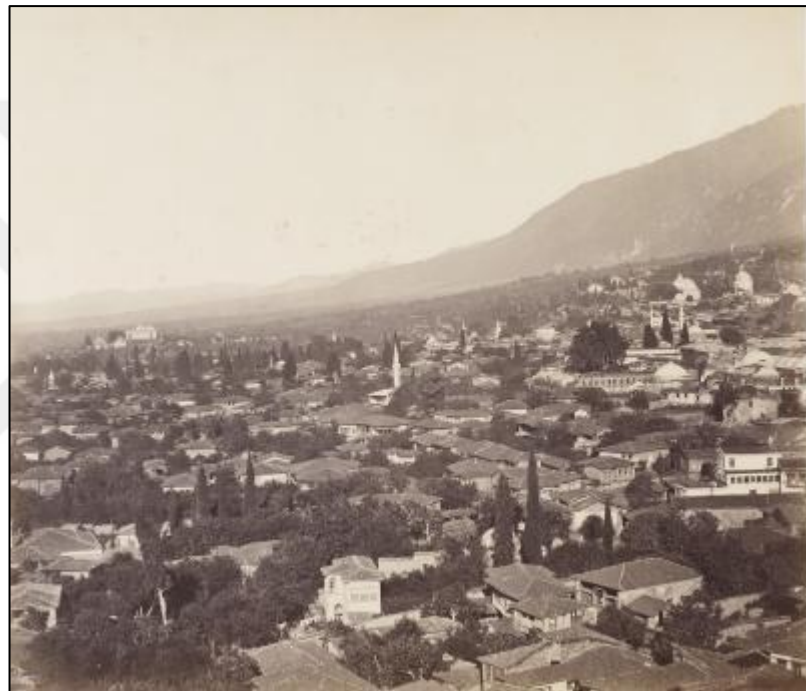


Figure 2.8: General view and housing pattern of Bursa in 1865 (Url-5)

2.3.2.2. Urban circulation network in 1862

As seen on the Suphi Bey Map, Bursa's street network in the 1860s showed the traditional organic characteristics, where new planning approaches had not yet affected the city together with the emergence of new roads and arteries. The streets of Bursa were irregular and narrow, with many dead-ends in the urban fabric (Figure 2.9).

Saray Avenue was mentioned as the main artery of the city at the beginning of the 19th century. Curving irregularly from the east of the Castle, passing the Ulu Mosque towards the embankment bridge in the east, this road continued as *Namazgah Street* in the southeast of the city (Baykal, 1976).

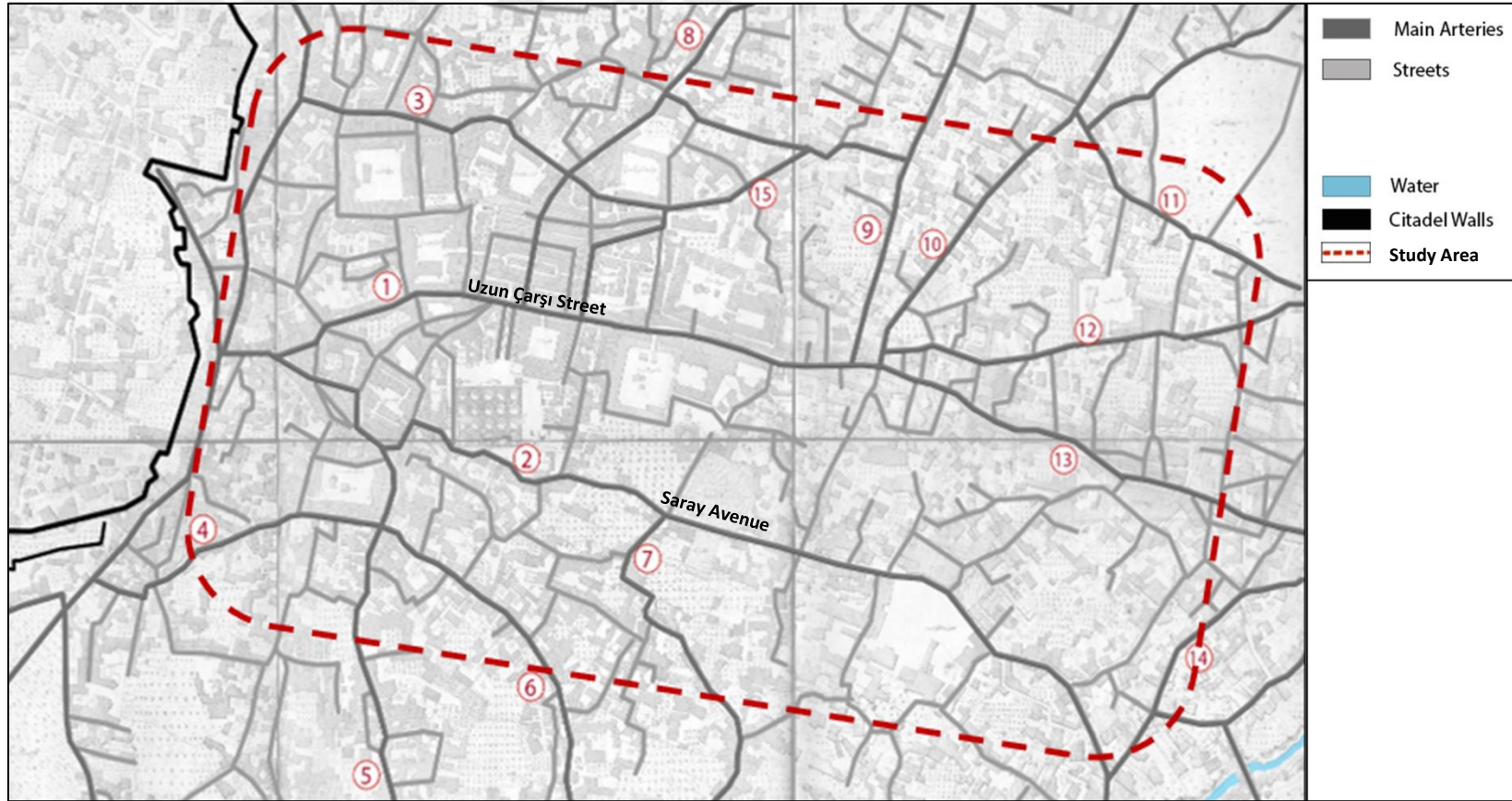


Figure 2.9: Urban circulation network of the Khans District in Bursa in 1862 (Redrawn by the author after 1862-dated Suphi Bey Map)

The main road passing through *Çatalfırın* to the east of the Castle, then passing through *Altıparmak* and *Yahudilik* Quarters, connected the market area to *Muradiye* and *Çekirge* in the west and was named as *Muradiye* Street (St. Laurent, 1989, p.79).

The bazaar area was connected to *Deveciler* Street and *Atpazarı* Quarter, and *Kayan* Street to *Kayan* Quarter. *Reyhan*, *Tayakadin* and *Elmalık* Streets are indicated as the direct or indirect roads from the center to the northern districts. The street network of the eastern part of the city was not as dense as between the *Gökdere* and *Cilimboz* rivers. *Saray Avenue* was the main artery for providing an extension to the market district. Narrow streets that branched irregularly and organically from the main roads leading to various districts of the city were completing Bursa's street network in the 1860s (Türkoğlu, 2002, p.42). These Streets were;

1. Uzun Çarşı Street 2. Saray Avenue 3. Reyhan Street 4. Pınarbaşı Street
5. Molla Fenari Street 6. Akbıyık Street 7. Mahkeme Street 8. Tayakadin Street
9. Hoca İlyas Street 10. Abdal Street 11. Deveciler Street 12. Tahıl Street
13. Kayan Street 14. Mahkeme Street 15. Elmalık Street

2.3.2.3. Land use pattern in 1862

When the land use pattern examined in the Suphi Bey Map, it is seen that the Bursa trade center remained within its borders in the 16th century. Numerous commercial, religious, and social buildings in this part of the city are mentioned on the map with their names (Figure 2.10).

The Khans District consists of three main types of commercial buildings. The first of these is the khans, which were used both for trade and accommodation. The khans are generally, two or three-storey high buildings having square or rectangular plans, with a large central courtyard. They are sometimes under a mosque with fountains. The upper floors of the khans were generally used for accommodation, especially for wholesalers and foreign traders, while the ground floors served as warehouse. In some cases, the ground floors were also used for retail purposes. Khans were of great importance for the development of the commercial activities of the cities in which they were located. The number of khans in a city showed how important the city was for its commercial activities (Faroqhi, 2000, p.35).

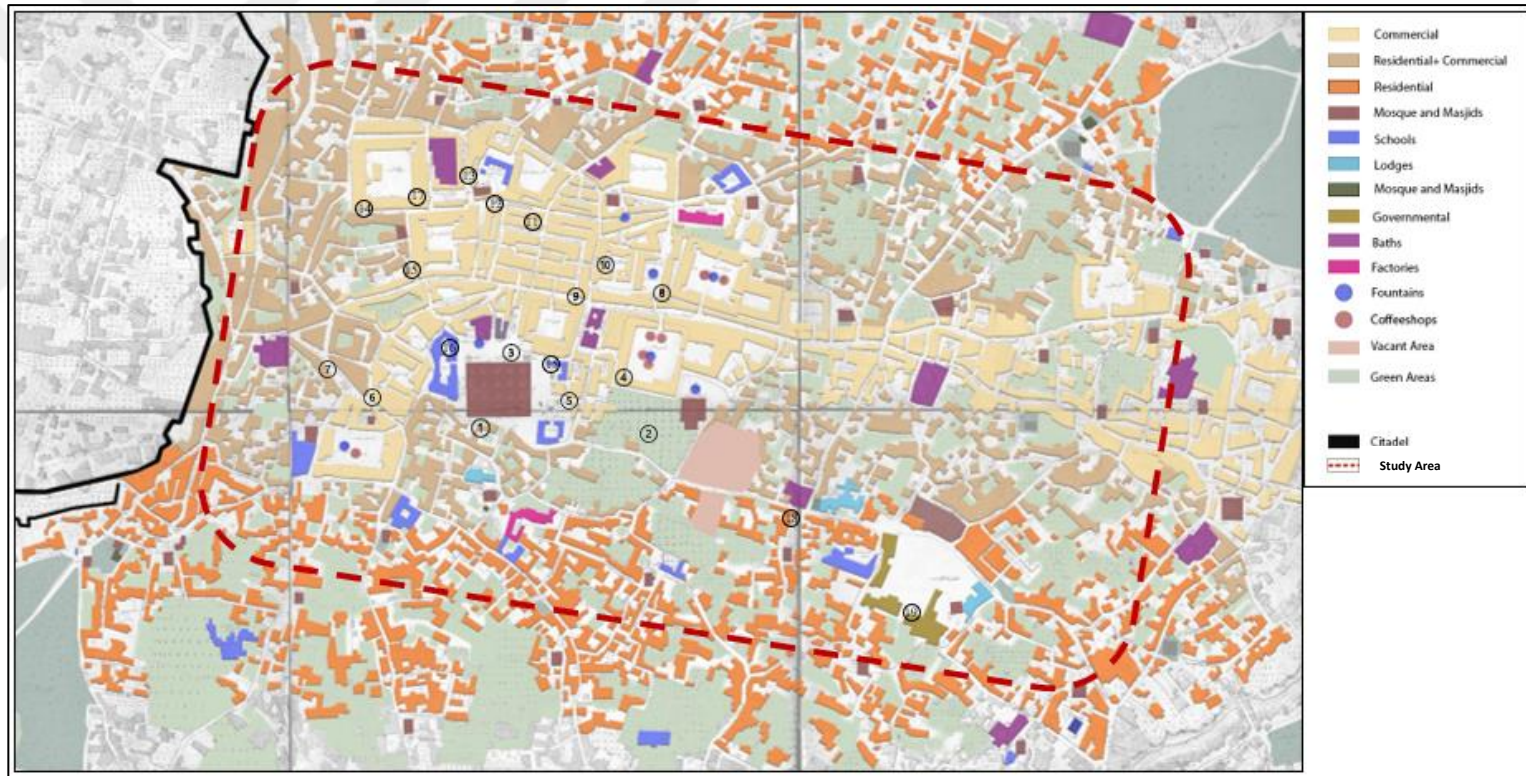


Figure 2.10: Land use of the Khans District in Bursa in 1862 (Redrawn by the author after 1862-dated Suphi Bey Map)

Other commercial buildings on the map are *Emir Khan* (3), *Koza Khan* (4), *Zeytin Khan* (5), *Kapan Khan* (6), *Doğangözü Khan* (7), *Fidan Khan* (8), *Geyve Khan* (9), *Sandıkçılar Khan* (10), *Sipahiler Bazaar* (11), *Karacabey Khan* (12), *Kuşbazlar Khan* (13), *Pirinç Khan* (14) and *Arabacılar Khan* (15). In addition to these khans and the bazaar, there are many small shops around the trade center (Figure 2.11).

A third element of the Khans District was the bazaar, which consisted of maze-like streets, containing the market and shops. In this area, there was a street, or khans reserved for each type of product, a mosque, a courtyard and a fountain, and places for the exchange of goods. In the outermost parts of the khans, there were workshops where products were hand made. The buildings of the Khans District in Bursa were built between the 14th and 16th centuries.

Since the houses of the Muslim merchants were located in different quarters of the city, there is no information on the trade center and settlements in the Suphi Bey Map. In addition, in the previous periods, foreign merchants were residing in *Pirinç Khan* due to its proximity to commercial activities. In the 19th century, some kept their offices and bedrooms in certain khans within the market area. However, it is known that many of the foreign merchants tended to settle in İstanbul in the 19th century due to its proximity to Bursa, and the ease of business (Erder, 1975, p.96).

Apart from the residential and commercial buildings and the street network in detail, the factories, bridges, fountains, gardens, and cemeteries are fully shown on the Suphi Bey Map.

In the 1860s, the religious buildings of Bursa were listed as *Kilise*, *Havra* and *Kabristan* (church, synagogue, and cemetery) on the legend of the Suphi Bey Map, and some of them were indicated by their names. The existing religious buildings of Muslims in the 1860s can be classified as mosques or masjids, tombs, *tekkes*⁹ and cemeteries, which were the focal points in the urban structure of the city. In addition to the largest social complexes, nearly 120 mosques and masjids and 60 tombs are identified on the Suphi Bey Map. Seyyid Usul, Çatalfırın, Köprülü Dede, Hamam, Üftade Sayyid Nasır, Mevlevi, Mısri, Zeyniler, Kara Kadı, İsmail Hakkı, Hüsameddin,

⁹ Dervish Lodges

Şeyh Sabit and İncirli lodges and Ahmet Pasha Fenari, Alaca Cardigan, Ali Pasha, Azabbey, Elvenbey, Emir Sultan, Somuncu Baba, Hamzabey, Ivaz Pasha, Nakkaş Ali, Sayyid Usu, Tayakadin and Zindankapı were other important religious places in the middle of the 19th century (Baykal, 1950, p.78).

Among the important mosques of the city, these are; *Ulu Mosque* (1), *Orhan Gazi* (2), *Gazi Hüddâvendigar*, *Yıldırım Bayezid*, *Yeşil*, *Muradiye*, *Emir Sultan*, *Molla Arab Cebbâri*, *Üftâde* and *Namazgah* mosques. In the courtyards of two of these mosques, there is a *muvakkithane*, which was built as a small building used as a small observatory where the prayer times used to be determined.

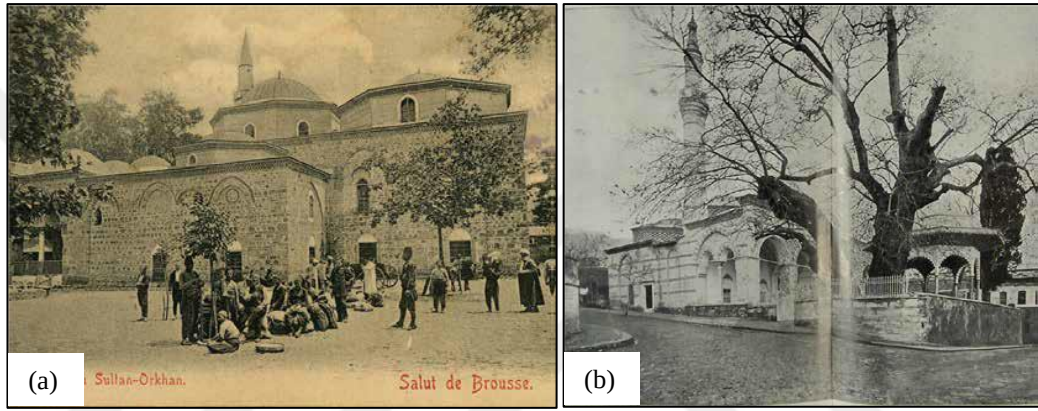


Figure 2.13: (a) Western frontal façade of Orhan Mosque in the 1900s (Dostoğlu, 1999, p.52)

Figure 2.14: (b) The general view of the Orhan Mosque together with the newly opened gate in 1905 and the fountain in the courtyard, 1905-1907 (Bursa Salname of 1324)

Orhan Gazi Complex (Külliye) was consisted of a mosque, a madrasah (destroyed), an imaret (demolished and replaced by a municipal building), a hammam and a khan (Emir Khan).

Orhan Mosque is the first building constructed within the complex (Figures 2.13, 2.14). It is the first mosque where the ‘ $\perp$ ’ plan (with zawiya, *tabhane*), which is one of the most important designs of the Early Period Ottoman Architecture, is seen. The need for units to meet the physical, cultural, and social needs of the empire at the establishment stage was effective in the creation of this plan type. The mosque consists of the main place of worship called Harim, an *eyvan*¹⁰ on both sides of this place of

¹⁰ The *eyvan*, which is seen in the mosques and madrasahs of the Great Seljuks and Anatolian Seljuks, is called the volumes with an open side, three sides closed, and covered with vaults, with a higher ground than the ground (TDV, 1995, p.12).

worship, and two *tabhane*¹¹s placed on the north and south of these *eyvans* (Bursa Metropolitan Municipality, n.d, p.6).

The plan of Orhan Mosque, found in the Ottoman Archives and thought to have been prepared between 1857 and 1863. The changes that took place in the building during the repairs of the Orhan Mosque, which is thought to have started after 1857 and some interventions were made by Léon Parvillée, are revealed in detail in this study. The most important changes made in the mosque after the 1855 earthquakes were the removal of the walls separating the hospital rooms and the integration of these parts with the main space of the building. After these dates, the building did not have any important repairs until 1904. The last important change made in the building in the nearly twenty years' time _from 1904 to the Early Republican Period_ is the opening of the door to the eastern frontal-façade (Bilmiş, 2021, p.318-320).

Thermal springs and baths are other important natural and architectural elements of Bursa. Several baths are indicated on the Suphi Bey Map. These are *Atpazarı*, *Çakır*, *Bitpazarı*, *Muallimzade*, *Emir Sultan*, *İbrahim Pasha*, *İncirli*, *Perşembe*, *Kara Mustafa*, *Kayan*, *Kaynarca*, *Mahkeme*, *Nalincılar*, *Nasuh Pasha*, *Umurbey*, *Oruçbey*, *Reyhan*, *Muradiye*, *Alaaddin*, *Pınarbaşı*, *Davut Pasha*, *Yeşil*, *Emir Sultan*, *Yıldırım* baths can be given. *Orhan* (15), *Şengül* (16) and *Meyhaneli* (17) shown in the bazaar area. There was also a bath dating back to 1552 in the Jewish district (Baykal, 1950, p.79)

In addition, *Baba Efendi* (18) and *Münzevi* (19) Lodges can be identified on the map.

Depending on the Suphi Bey Map, it is seen that non-Muslim communities also had schools in Bursa and most of them are indicated on the map. It is known that the Jewish school located near the Guerouch Synagogue and a library for rabbis' to make research were in use (Baykal,1950, p.80). The Gregorian church of the Armenian community in *Setbaşı* was part of a complex that included a school and the residence of the bishop (St Laurent, 1989, p.84). There was a wall surrounding the complex with an entrance door from the street still stands today (Türkoğlu, 2002, p.45).

¹¹ The *tabhane*, is an institution that means resting place in the Ottoman period. In this institution, the poor, sick, tired, job seeker, starving, etc. people were staying (TDV, 2000, p.219).

Since Bursa had become the center of the province, and some changes occurred due to this, an administrative complex emerged in which two buildings as ‘*Atik Pasha Gate*’ and ‘*Cedid Pasha Gate*’ are emphasized in the map. The Atik Pasha Gate was to be arranged as a prison building, this time in the northeast of the square and adjacent to the parcel of the Hermit Lodge. Around 1893-94, it is seen that the Provincial Building was located on the present *Heykel Square* just at the north of and directly opposite the *Hacılar Mosque* (Figure 2.15).

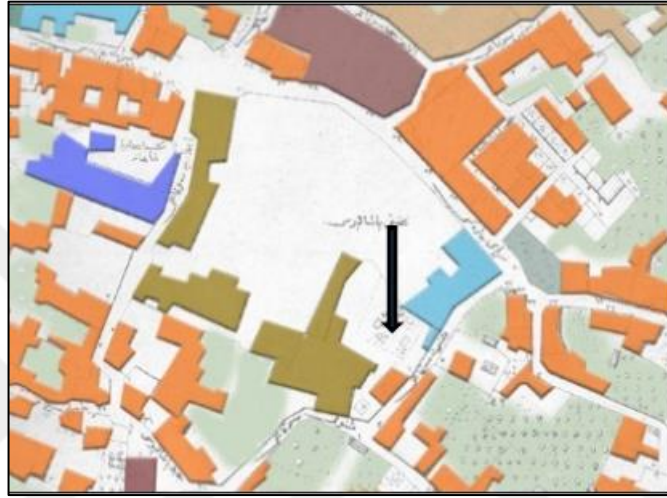


Figure 2.15: Atik Pasha and Cedid Pasha gate in 1862-dated Suphi Bey Map (edited by the author)

2.4. Bursa in 1909

In this section, the historic, social, cultural, and economic developments that affected Bursa Historic City Center and the Khans District until 1909 are examined.

2.4.1. Historical developments from 1860s to 1909

The Ottoman Empire was one of the largest empires in the world in terms of territorial sovereignty and population in the early 19th century. However, starting from the mid-19th century, administrative problems began to arise in the Ottoman institutions. When the countries in western and eastern Europe continued their development in the economic, political, and technological fields, the Ottoman Empire was falling back. This position of the Ottoman Empire showed its first signs on the battlefields. For this reason, the Ottoman administration planned new arrangements in the military field

primarily, and the Ottoman modernization process regarding the other fields began in the following years (Abacı-Dörtok, 2005, p.32). The Ottoman Empire needed reforms to regain its power by modernizing its traditional institutions in line with western idealism. This reform period lasted until World War I (Türkoğlu, 2002, p.49).

Innovation initiatives in the military field which started in the 18th century, began to spread to other areas in the 19th century. With the Tanzimat Edict, the idea of Westernization became well established in the Ottoman Empire and it represents an important stage in the implementation of the reform initiatives that have been on-going for nearly two centuries in the Ottoman Empire. Tanzimat also gave direction to the Ottoman reform movement and was not limited to its own period but has been a process that constituted the source of some ideas and institutions of the Constitutional regimes and even the later Republic of Turkey (Aktüre, 1985, p.893).

The Tanzimat edict declared on 3 November 1839 is an important step towards guaranteeing citizenship rights. By making regulations in the state administration, personal rights and citizenship rights were accepted equally between Muslims and non-Muslims, and regulations such as ensuring the safety of life and property of all people and collecting taxes according to income were made (Abacı-Dörtok, 2005, p.34).

The Tanzimat reforms also caused regulations that would affect the physical structure of the cities. As a result of the expansion of the bureaucratic organization, a new administrative structure was necessary in the provinces. In the Ottoman administration, the *sanjaks* were the basic units, and the provinces were formed by the union of the sanjaks. Beylerbeyi, as the governor of the provinces, was both the administrative and the military chief of that region. Beylerbeyi was the ‘Pasha Sanjak’ in the center of the province, while the sanjaks of the province were administered by the Sanjakbeys appointed from the center (Çadircı, 1989, p.1214).

Starting from the 17th century, the classical Ottoman administrative system began to change, and the ‘governor’ took the place of ‘Beylerbeyi’. While the governors had the revenues of the sanjaks at the beginning, they provided their administration later (Çadircı, 1989, p.1216). Until the proclamation of the Tanzimat Edict, the governors maintained their positions as officials who ensured the implementation of laws and

regulations by representing the executive power on behalf of the central government in the province.

The governors, who were administratively connected to the center with the Tanzimat, began to make intense applications with demands and complaints to the capital. When the central administrations were unable to respond to these, Grand Vizier Fuat Pasha developed a new provincial regulation or a new administrative system (Eryılmaz, 1992, p.193). In this regulation, it was aimed to turn the provinces and sanjaks into new and larger units giving the leadership to the selected talented and experienced people (Lewis, 1991, p.383).

Thus, 10 provinces and 44 sanjaks in Rumeli and 16 provinces and 4 sanjaks in Anatolia were formed according to the new regulation. The reason for Bursa's being a priority city where Tanzimat and later regulations were implemented was its proximity to the capital city and its easy surveillance (Kazıcı, 1987, p.77).

Starting from the 19th century, municipalities as, local governmental institutions, emerged with the aim of centralizing the Ottoman city administration. Municipal services were not managed from a single center. While the *kadıs*¹² were performing their duties as judges, mayors, and social security authorities, to whom the public consulted every issue, there were also assistant officers. For example, *muhtesibs*¹³ were responsible for the supervision of the tradesmen and determining the prices, and the chief architects were responsible for the management of the construction works (Ortaylı, 1994, p.38).

2.4.2. Social and economic structure of Bursa between the 1860s and 1909

Significant changes in the field of social life in Bursa occurred during the rule of Abdulhamid II. The pioneers of this change were the city's administrators, the French-ruled Düyün-u Umumiye Administration, which had the right to produce silk and operate silk trade. In addition, during this period, there were migrations from the Caucasus and the Balkans.

The most important supporters of innovations were the administrators who were

¹² A judge appointed by the state to decide legal disputes and cases.

¹³ The organization responsible for monitoring general morality and public order in Islamic states.

behind the changes, considering the wishes of the public. To facilitate the economic activities carried out by non-Muslims mainly, the demands of them were tried to be met. Improving transportation, postal and communication services, opening a branch of Ziraat Bank in the city, and putting new public buildings into service were important developments (Kumaş, 2011, p.208).

In addition to new cultural activities such as theaters, exhibitions, and museums, establishment of many new schools was an innovative movement carried out by the city administrators even acting ahead of the other innovations. Some of these were in the way of investing in areas needed by the city and the public, while some activities (such as theater and exhibition) emerged in a spontaneous manner.

The innovative and traditionalist debate which caused some dilemmas in the Ottoman society, also caused the social life to become stagnant from time to time. Bursa, on the other hand, was one of the cities that experienced this effect the least compared to other Ottoman cities. The importance given to Bursa by the Ottoman administration can be verified by the well-educated and open to western culture and innovation administrators sent to Bursa.

Especially after Ahmet Vefik Pasha was appointed as the Governor of Hüdâvendigar Province, significant changes occurred in the social life of the city. Pasha aimed to develop and change the city physically and culturally. While Ahmet Vefik Pasha was building new public buildings, as the symbols of modernization, he aimed to create harmony between the Ottoman traditional and the modern urban fabric.

The fires that broke out in the dense urban settlement of the city, in the narrow streets, were growing and spreading to the whole city in a short time. In order to put an end to these catastrophes and to intervene in the fires, the Tulumbacı (fire brigade) organization was established in 1876. In 1886, the position of the head of the fireman was opened and filled, and the organization was completed. Firemen were always on standby to intervene in the fire by patrolling the streets during the night when the southwesterly was effective. With fast spread, due to the narrowness of the streets, there were great difficulties in responding to the fires from time to time (Kumaş, 2011, p.203).

After the earthquake of 1855, many buildings were damaged in the city, but only a few buildings of historic importance were restored. Ahmet Vefik Pasha and the

administrators of the city who were in force after him, saw the destruction caused by the earthquake and the difficulties in responding to the fires as an opportunity. So, they started some demolition works for widening of the streets.

The people of Bursa who experienced the destructions caused by earthquakes and fires, did not react to the demolition of their houses by the Municipality in this process. Thus, the city gained a modern appearance physically. Sidewalks have also started to be built to enable pedestrians to walk comfortably in the city. Since there were no sidewalks on the Altıparmak-Çekirge Road, both the road and the sidewalks were repaired, due to the problems experienced in rainy weathers (Bursa Journal, p.2.).

While the traffic was regulated, the roads connecting the city to the districts were either rearranged or rebuilt during this period. City administrators gave importance to municipal activities to create a modern city. However, with a law enacted by the Ottoman administration in 1882, if more than ten houses were burned down in a region, the region was rearranged and parceled out to the rightful owners. In this way, streets and avenues could be widened by taking some road share from the lands (Kumaş, 2011, p.203).

In 1903, a water network was created for the first time in the city and a large water reservoir was built in the area where Maksem District is located. In addition, a fountain was built in the courtyard of the Ulu Mosque, and it was opened to public. The city's administrators also worked on new public buildings and schools. In this period when the Ottoman economy was in trouble with, a shortage of financial resources. For this reason, the administrators and the public carried out the repairs and the constructions together. In this way, adaptation to change has been achieved by ensuring the participation of the public in social change with the cooperation of the state and the people.

The interest in Bursa has increased due to the start of regular ferry services in 1886 and the increase in the quality of the ships working on this line and the low-ticket prices. In this period, there was a great increase in the number of domestic and foreign visitors in Bursa. For this reason, the routes of the horse-drawn carriages in the city have been redefined. In addition, a road was built between Bursa city center and the Çekirge District, where the hot springs are located.

Regular ferry services also ensured the regularization of postal services in the city, and a telegraph office was located beside the post office.

The first printing house of Bursa was established in 1865 under the name of Vilayet Printing House, and the first newspaper of Bursa, Hüdâvendigar Newspaper, was started to be printed in this building. The people of Bursa were able to learn about various announcements and advertisements published by the government through this newspaper. With the establishment of private printing houses and the printing of Bursa newspaper in these buildings, more comprehensive information was served and obtained about the daily life of the city. Bursa local newspapers made an important contribution to the development of the literary and cultural life of the city. In addition to this, they provided communication between the state and the people, they expressed various wishes and demands of the people, also providing great benefits to the merchants and the artisans of Bursa with the advertisements on the newspaper pages.

The administration foresaw that modernization would not only be realized with infrastructure works, but also be supported with cultural activities as well. Ahmet Vefik Pasha had the city's first theater built in 1879. In the beginning, only civil servants and high-ranking soldiers watched the theater performances, and ordinary people began to go to the theater in time.

In 1906 and 1909, two separate exhibitions were held in the city. The participation of the public was targeted by keeping the entrance fees to the exhibition low. In addition, one day of the week was reserved for women only to visit the exhibition. The same practice was carried out for theatrical performances. Thus, it was tried to ensure that women took part in social life as well. In 1904, the city's first museum was opened. The people of Bursa, already introduced to different cultural events such as theater, exhibition, and museum, adopted these new developments quickly.

From the second half of the 19th century, reforms began to be seen in education. The opening of new schools with new methods and the establishment of the state educational administration can be given as examples. With the increase in the number of schools, students, and civil servants coming from outside the city have been one of the factors in the population increase.

Ibtidai, rüşdiyye, high school and vocational schools, which adopted new methods in education, played an important role in the modernization of Bursa with the education

they provided and the social activities they carried out. It has also brought vitality to the social life of the people of Bursa. On the other hand, the continuation of the educational activities in the old-style primary schools and the madrasahs caused a duality in education.

Vocational schools, as the pioneers of innovation, have enabled the people of Bursa to meet these innovations. By following the developments in the world and especially in Europe, they ensured the people of Bursa were informed about new developments. Agricultural schools supported the farmers of Bursa with the agricultural courses given. In addition, they aimed to provide equal opportunity by giving education to poor students free of charge, or with low fees. The industrial school (*Islahhane*) took care of orphans and provided them the skills to gain a profession. The new schools care about the role of the parents in education. Various activities were organized to involve the parents in the educational activities like the student trips, theater performances, and marching bands performing music to the public in front of the Government House on certain days (Kumaş, 2011, p.206).

With the increase in the number of schools, the number of civil servants, teachers, and administrators working in these schools increased, which led to the emergence of an educated civil servant class in Bursa. To meet the needs of this group, the people of Bursa, especially the tradesmen, took a number of initiatives. The owners of coffee houses and cafes, along with local newspapers, started to offer information services to their customers by subscribing to newspapers in İstanbul, and dervish lodges and their libraries opened sections where newspapers could be read upon request.

The public buildings constructed in this period were to prove to the world that the Ottoman Empire was still standing with all its institutions and its power. Buildings such as the Government House, Military High School, Hospital, and Clock Tower constructed and used, with their magnificent views and positions that dominated the city, being visible from everywhere have been sources of pride for the people of Bursa and messages given by the Ottoman administration to the world. During the rule of Abdülhamid, they appeared as symbolic buildings showing the power of the state. The

clock tower functioning as a fire tower not only contributed to the modernization of the city, but also enabled the fires to be intervened in a shorter time.

Another factor in the economic and social development of the city was the immigrants from the Balkans and the Caucasus due to the Ottoman-Russian War of 1877-1878. These immigrants enabled unused agricultural lands to be brought into the economy. The Ottoman government made efforts to drain the swamps to open new agricultural areas for the immigrants who came to the city. In addition to agricultural activities, immigrants built new houses with the regional construction techniques of their homelands and established new neighborhoods. As a result, they contributed greatly to the social and economic development of the city.

Under the influence of the French, *Düyun-u Umumiye* Administration was established in 1881 and started its activities in Bursa in 1888. A sericulture (or silk production) school was established in the city to increase the income of sericulture. This school, especially preferred by Armenian and Greek non-Muslim citizens, provided the increase in silk thread production with the education and courses offered, the innovations it brought in the production style, in this way reducing the import of cocoon seeds. The French authorities wanted the Ottoman Government to take initiatives on various issues in order to facilitate their commercial activities. An example of this was the opening of the Mudanya-Bursa Railway in 1873. Thus, the transportation duration between Bursa and Mudanya has been shortened and the transportation to İstanbul has been facilitated by regular ferry services from the Mudanya port. This new services situation has made the job of the tradesman a lot easier. Giving them the chance to exhibit and sell their newly released products in İstanbul (Baykal, 1993, p. 24-25).

Bursa Chamber of Commerce was established in 1889 to regulate the developing industrial activities of the city and to gather the entrepreneurs operating in Bursa under a single roof (Kaplanoğlu, 2009, p.2). Among the first term members of the chamber of commerce, non-Muslims constituted the majority. The oldest bank opened a branch in Bursa was 'Bank-ı Osmani' (Ottoman Bank). After İstanbul, the first branch was opened in Bursa. Then, Bursa's first Ziraat Bank branch was opened to meet especially the farmers' loan needs and introducing the people to banking activities, which are an important part of modern life. Another important bank operating in Bursa is Deutsche

Orient Bank. The bank had been operated in Bursa since 1906 and was active until 1922.

Although there were many ethnic and religious groups living in Bursa during this period, Muslims, Armenians, Greeks, and Jews were in the majority. Although non-Muslims seemed to be ahead of Muslims in commercial and cultural activities in the city. Main administrators and the decision-makers on behalf of the city were Muslims. The reasons for these were as the rulers of the country were Muslims, and they constituted the majority of the population, compared to non-Muslims (Kumaş, 2011, p. 209).

With the silk production's transition to mechanical/industrialized system, it brought changes in social life under the leadership of the French and other groups in the 1830s. After the 1860s, comprehensive changes began in modernism, western culture and social life with the programs and policies of the city administrators (Kumaş, 2011, p. 209).

2.4.3. Urban structure of Bursa in 1909

In this section, the urban structure of Bursa Khans District in 1909 is analyzed under three morphological components as: urban fabric, urban circulation network and land use pattern. In addition, the changes in the urban fabric between 1862 and 1909 are analyzed and put forward.

2.4.2.1. Urban fabric in 1909

Building blocks, urban fabric, and voids (of streets and open spaces), green areas, cemeteries, vacant lands were specified in the urban fabric analysis made with reference to this map. Building group were specified within the boundaries of the study area, and main avenues, streets and dead-end streets are revealed (Figure 2.16).

Most of the reconstruction activities carried out after the 1855 earthquake are the works to open the main roads of the city. The aim of these studies was to create circulation network that will facilitate transportation within the organic street system of the city. Thus, it was aimed to transform the roads of the city suitable for a traffic including pedestrians, animals, and animal-drawn vehicles, also including dead-end streets as a traditional urban characteristic, into a regular road system suitable for

vehicular traffic. In the 1909 map, it is seen that Saray Avenue in the east-west direction, passing through the south of the Ulu Mosque, was widened during the rule of Ahmet Vefik Pasha.

As a result of the interventions carried out by the governors appointed to the city affecting the physical structure of the city, the trade center, spreading over a wide area in the second half of the 16th century, turned into an area bordered by Saray Avenue in the south, İnönü Avenue in the east, Hamidiye Avenue in the north and Cemal Nadir Avenue in the west at the end of the 19th century.

During the interventions that opened the main roads of the city, many historic buildings were completely or partially destroyed. During the opening of *Hamidiye* (Cumhuriyet) Avenue, the northeastern corner of *Pirinç Khan* (1) was demolished, and *Tahıl Khan* (2) was divided into two parts. However, some parts of *Karacabey Khan* (3) and *Eski Yeni Khan* (4) were demolished. During the opening of *Hükümet (Saray)* Avenue, a part of *Kapan Khan* (5) was demolished, and during the opening of *Mecidiye Avenue*, the eastern wing of *İpek Khan* (6) was demolished.

Change of urban fabric in the Khans District from 1862 to 1909:

According to the data obtained by superposing the maps dated 1862 and 1909 (Figure 2.17), the changes seen in the Khans District and its surroundings in the 47-year period are as follows:

Pınarbaşı (1) and Deveciler (2) Cemeteries, located in the northwest and southeast of the area, are two large-scale green areas in the city center.

Although the building fabric became more concentrated and densified in 1909, especially in the residential areas with respect to the 1862 map, no major urban fabric changes were observed in the Khans District. The open bazaars in the area continued their function in the region depending on the old photos as seen in Figures 2.18, 2.19.

Green areas located to the north and south of the residential areas in the city center can also be seen on the 1909-dated map.

The Citadel walls shown on the 1862-dated map are still present on the 1909-dated map and understood to be protected.

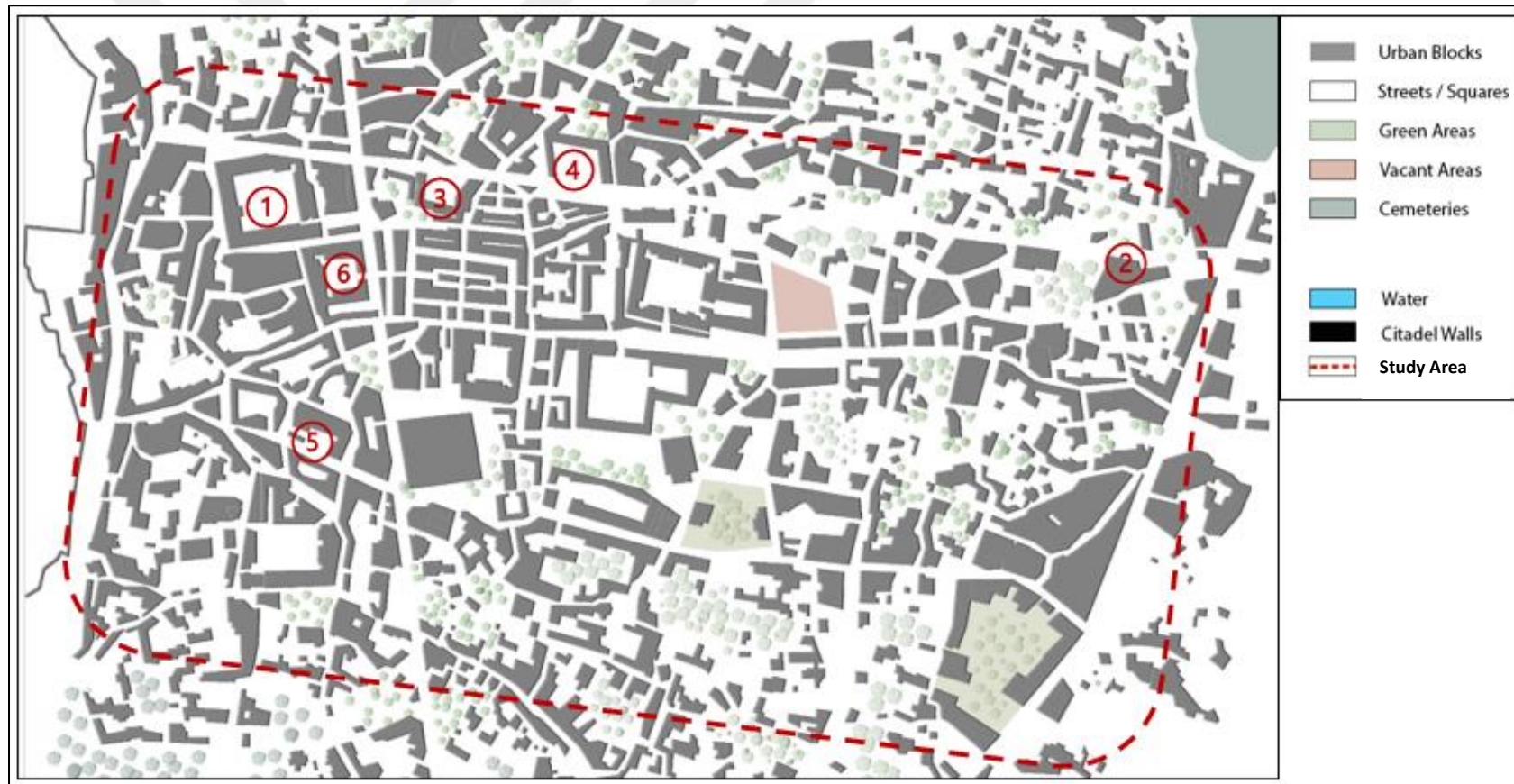


Figure 2.16: Urban fabric of the Khans District in Bursa in 1909 (Redrawn by the author after 1909-dated Map)

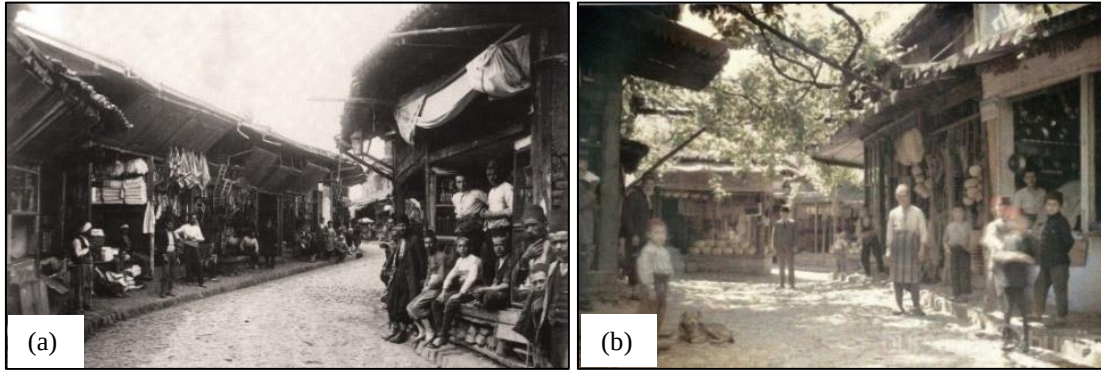


Figure 2.17: (a) A view of Okçular Bazaar in the 1900s (Url-6)

Figure 2.18: (b) A view of bazaar in the Khans District in 1913 (Url-7)

2.4.2.2. Urban circulation network in 1909

Ahmet Vefik Pasha aimed to establish a new and modern Ottoman city on Bursa that was badly damaged after the 1855 earthquake (Laurent, 1999, p.79). In line with this goal, as seen in the 1909-dated map, the main streets of the city were widened, and dead-end streets were removed (Figure 2.20).

Making the transportation system suitable for motor vehicles in the city can be described as another goal. During the first administration period of Ahmet Vefik Pasha between 1863-1864, *Saray Avenue* passing through the south of Ulu Mosque was expanded (Figures 2.21, 2.22) and its name was changed as *Hükümet Avenue* (1).

Deveciler Cemetery was divided into two parts and *Gemlik Avenue* (4) was opened, which cuts the *Hükümet Street* perpendicularly. With this road network, it is aimed to facilitate access to the city center and to associate the monumental buildings with the architecture of the Tanzimat Period.

For this purpose, the *Hünkâr Mansion*, which was built on *Temenyeri Hill*, was connected to the administrative center where the *Government House* is located on the other side of *İpekçilik Street* and *Setbaşı Bridge*, and then to Ulu Mosque and Citadel via *Hükümet Avenue* (Köprülü-Bağbancı, 2007, p.83).

In the second term of Ahmet Vefik Pasha's governorship, new road constructions slowed down and building construction activities increased.

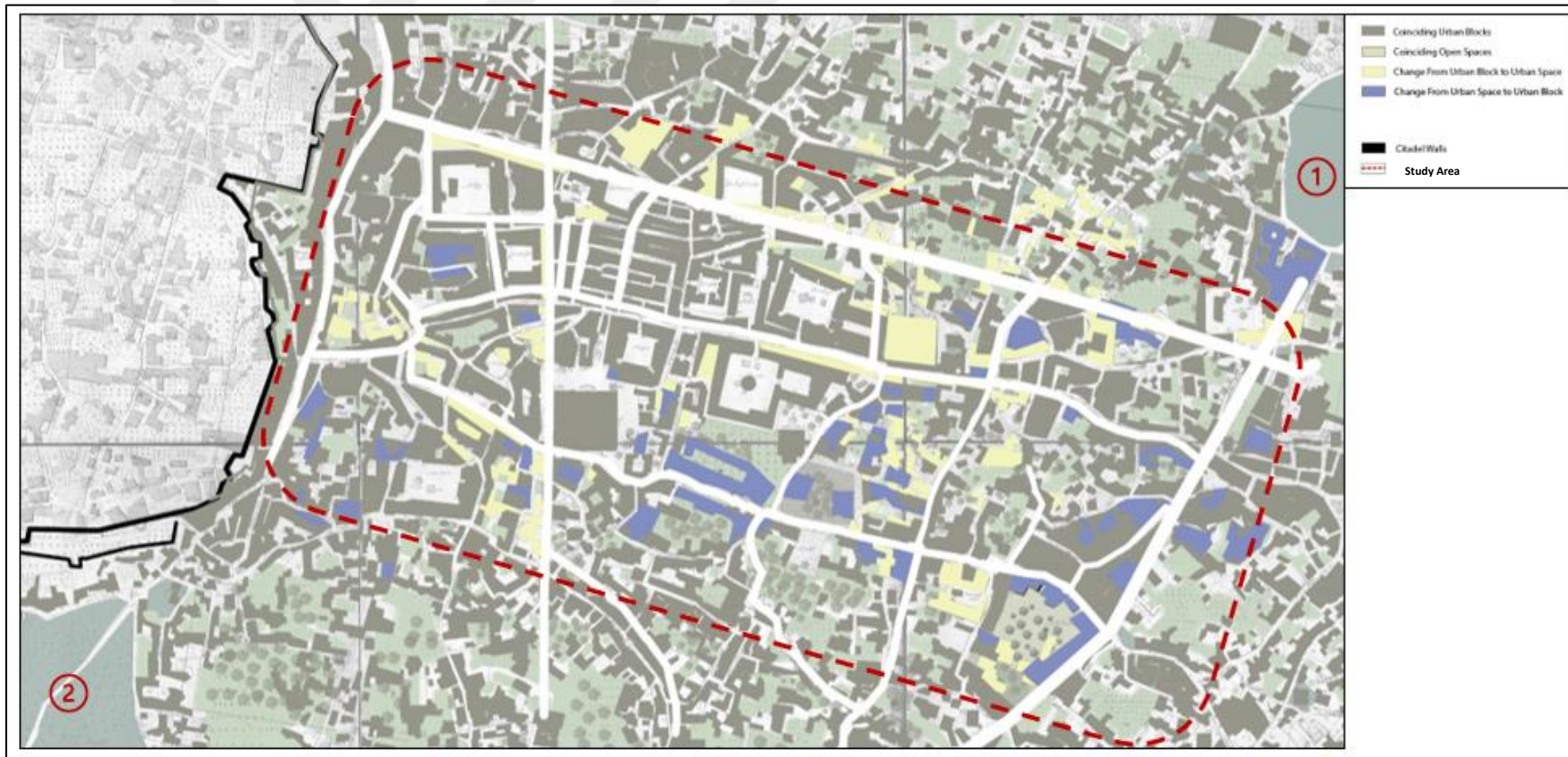


Figure 2.19: Change of urban fabric in the Khans District from 1862 to 1909 (through the superposition of 1862 and 1909-dated maps by the author)

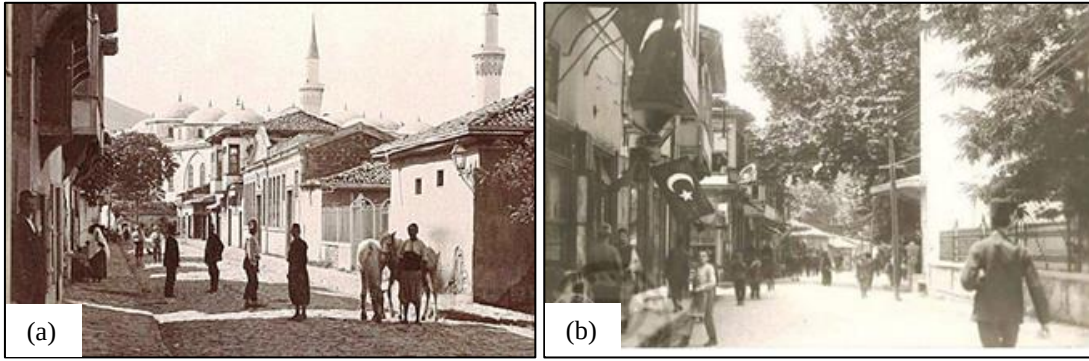


Figure 2.20: (a) A view of Hükümet (Saray) Avenue in the 1900s (Url-8)

Figure 2.21: (b) Hükümet (Saray) Avenue and Ulu Mosque in the 1900s (Url-9)

During the rule of Ahmet Münir Pasha (1891-1897), *Maksem Avenue* (Figure 2.22) was opened, and *Mecidiye Avenue* (Figure 2.23) was extended to *Maksem*. In addition, the unfinished roads, which were started around the Ulu Mosque during the Ahmet Vefik Pasha period, were completed (Köprülü-Bağbancı, 2007, p.84).

The transportation and trade axes, which are used extensively today, were created during the period of Mümtaz Reşit Pasha. *Hamidiye Avenue* (2), today's *Cumhuriyet Avenue*, was opened (Figure 2.25).

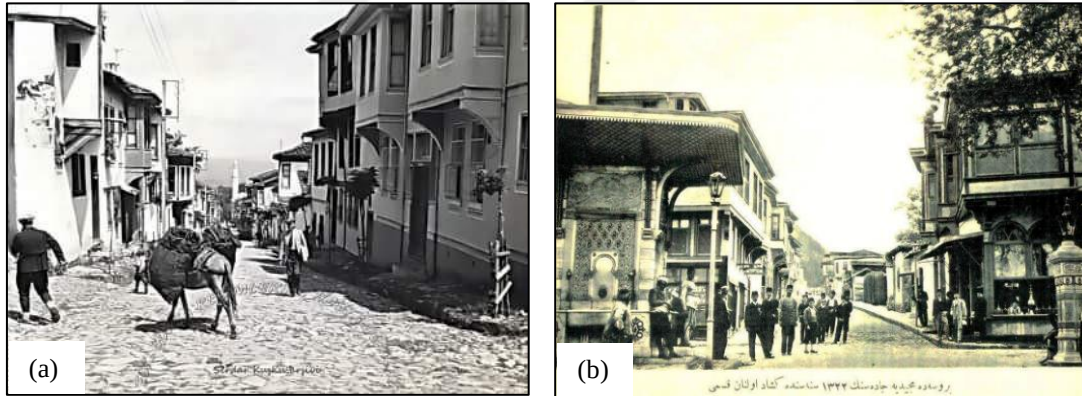


Figure 2.22: (a) Maksem Avenue in the 1900s (Serdar Kuşku Archive, Url-10)

Figure 2.23: (b) Mecidiye Avenue in 1908 (Url-11)

Mecidiye Avenue (3) (Figure 2.24), today's *Fevzi Çakmak Avenue* and which was opened and completed during the rule of Ahmet Vefik Pasha and Ahmet Münir Pasha, and *Altıparmak Avenue* (5) was opened (Batkan, 1996, p.3)

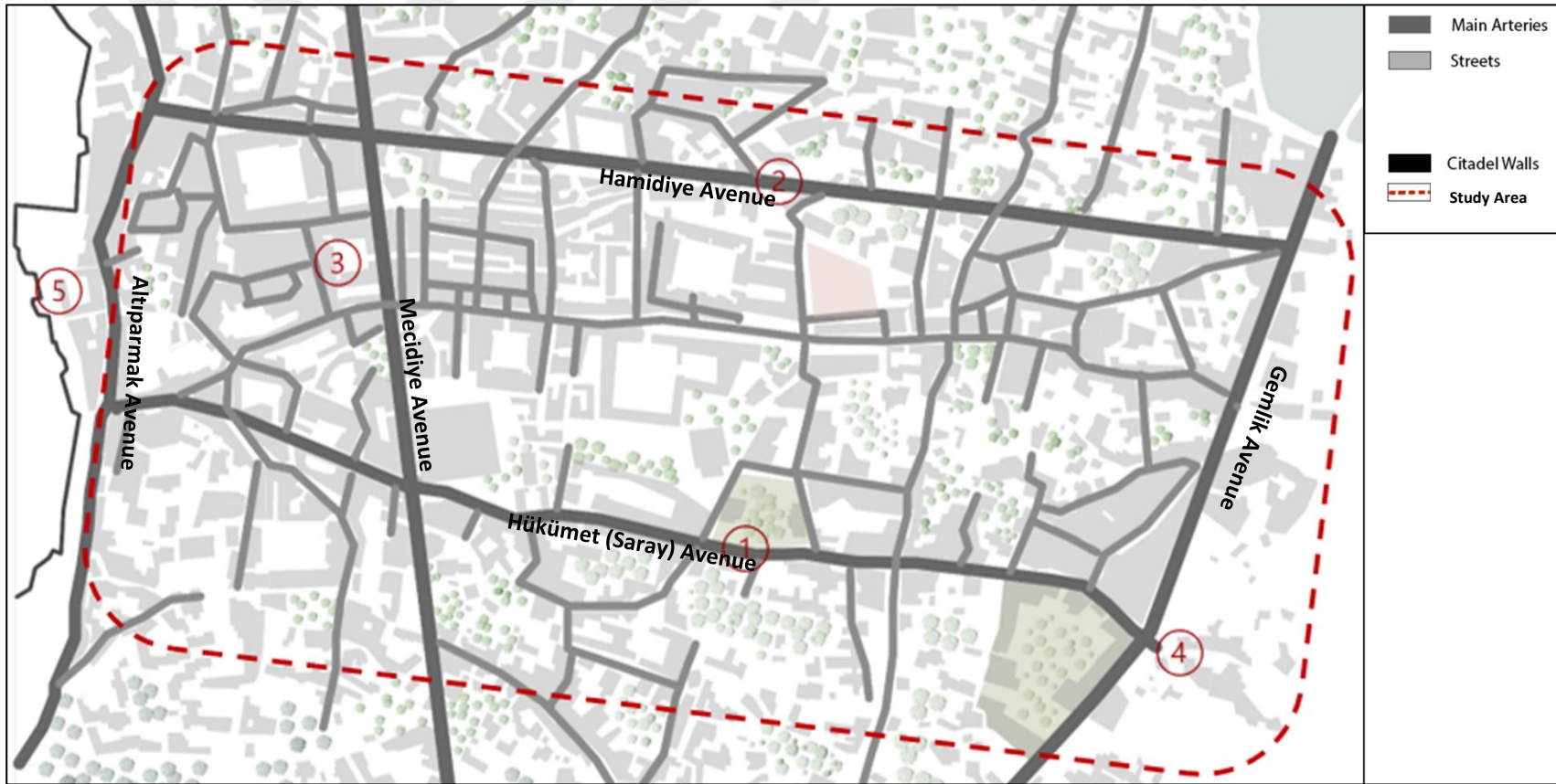


Figure 2.24: Urban circulation network of the Khans District in Bursa in 1909 (Redrawn by the author after 1909-dated Map)

Many monumental buildings and khans were damaged or destroyed during the opening operations of new transportation networks. While Hamidiye Avenue was being opened, *Tahıl Khan* was divided into two parts, and the corners of the *Perşembe Bath* and *Pirinç Khan* were demolished. In addition, *Eski Yeni Khan* partially and *Karacabey Khan* completely destroyed. However, during the opening of Mecidiye Avenue, which connected Maksem to Şhreküstü, the eastern section of *İpek Khan* was demolished (Köprülü-Bağbancı, 2008, p.105).

Saray Avenue in the east-west direction was widened, Yeniyol in the north-south direction was opened, and Münzevi Street was widened and turned into Hamidiye Avenue. Besides, the dead-end street where the Karaşeyh Mosque is located was opened and Maksem Avenue was created.



Figure 2.25: Hamidiye Avenue (today's Cumhuriyet Avenue) was opened in 1906 (Url-12)

2.4.2.3. Land use pattern in 1909

With the modernization movement, the change in the city administration and institutional structure towards the end of the 19th century continued with the construction of new public buildings with different functions in the city center (Figure 2.26). With the construction of the Government House in 1863, it was aimed to create a new focal area in the city center (Tekeli, 2007, p.82).

Government House

The Government House, first built next to the Atatürk Monument (1), was in the square

where the public buildings of the central administration such as the courthouse, *vakıfs* (Ottoman charitable foundation systems), police station, and gendarmerie were located (Figure 2.27)

(Bilmiş, 2021, p.78). Government House was burned down due to the fire in 1922. The new Government House was later moved to its place in Doruk Bazaar. After the building was burned down again at the end of World War I, the Government House was built on the Cumhuriyet Avenue (Bursa Encyclopedia, 2002, p.1428).

Municipality Building: The Municipality Building (Figure 2.28, 2.29), another pioneering building of modernization, was built in 1879, during the governorship of Ahmet Vefik Pasha, next to the Orhan Gazi Mosque, on the site of the old Orhan Gazi Imaret (2) (Saint-Laurent, 1999, p.96). The building survived the fire in 1889 and was expanded with some additions in 1902 (Bilmiş, 2021, p.100).



Figure 2.26: Buildings temporarily used as Government House for a while on Hamidiye Avenue (today's Cumhuriyet Avenue) (Dostoglu, 2001, No:136)

Municipality, the symbol of the local government, is located between the Government House, the symbol of the provincial administration, and the Ulu Mosque, the old symbol of the capital, shows that the modern center has not broken away from the traditional center (Tekeli, 2007, p.82).

The hospital, Government House, and theater buildings constructed during the rule of Ahmet Vefik Pasha were inspired from European architecture in terms of architectural style.

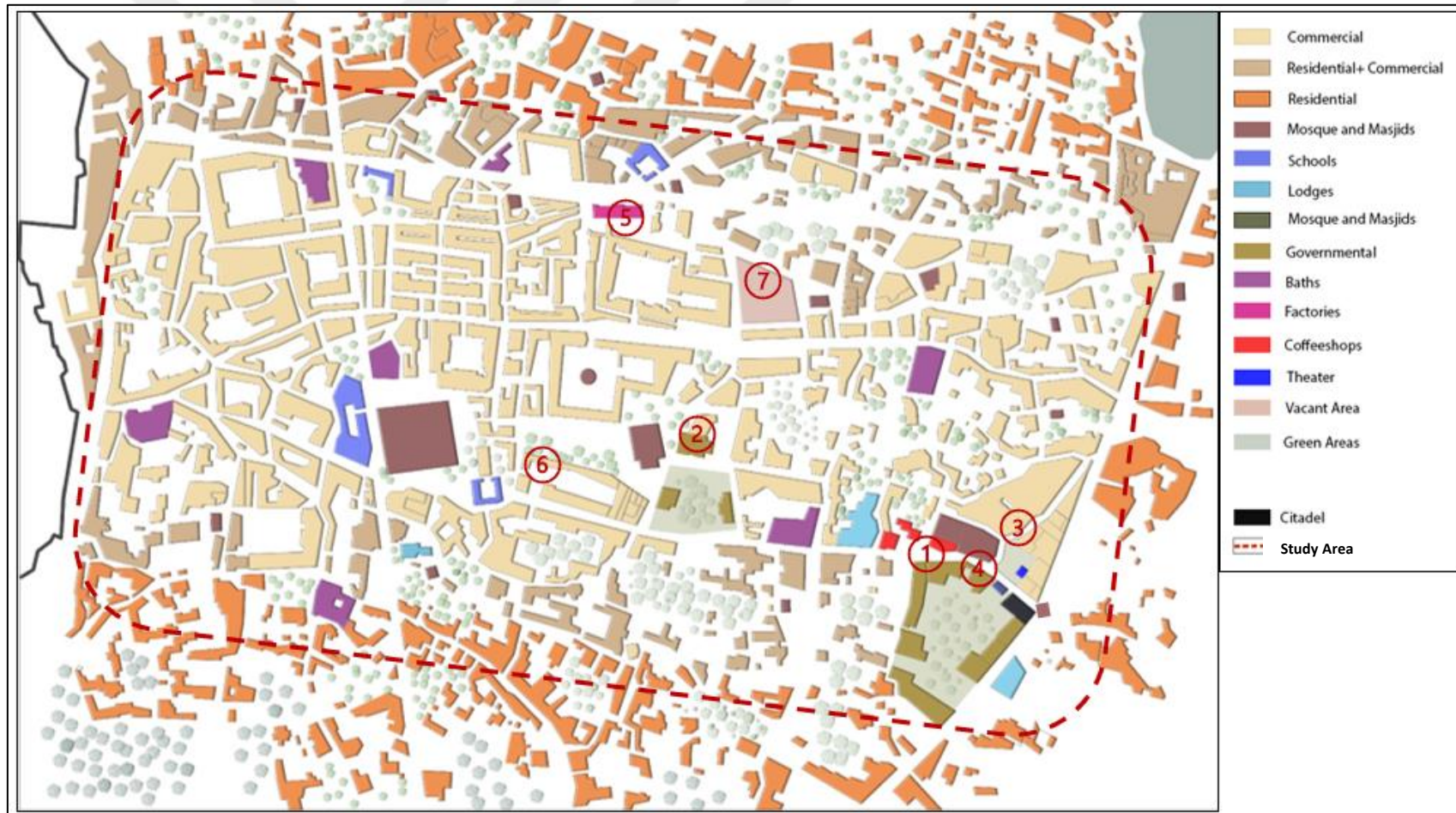


Figure 2.27: Land use of the Khans District in Bursa in 1909 (Redrawn by the author after 1909-dated Map)

Even though the Municipal Building was inspired from Europe as a local governmental building typology, it completely carries the characteristics of Ottoman architecture in terms of its plan, structural system, and the materials. It reflects the major characteristics of Ottoman mansion architecture with its interior hierarchy, and the features of 17th century Bursa houses with its façades. This shows that Ahmet Vefik Pasha aimed to preserve the Ottoman tradition while taking the administrative structure of the West as the model (Saint-Laurent, 1999, p. 105-117).

Theater Building

Ahmed Vefik Pasha and one of the directors of the İstanbul Theater Thomas Fasulyeciyan wanted to establish a theater in Bursa. In 1879, a theater building was constructed in the garden of the coffee house located across the Hükümet Street (Figure 2.30) (Abacı, 2013, p.58). This theater building has not survived to the present day, but the building, originally built as a community center in 1940, began to be used as a theater building in 1957 (Bursa Encyclopedia, 2002, p. 826-830, 1618-1625).

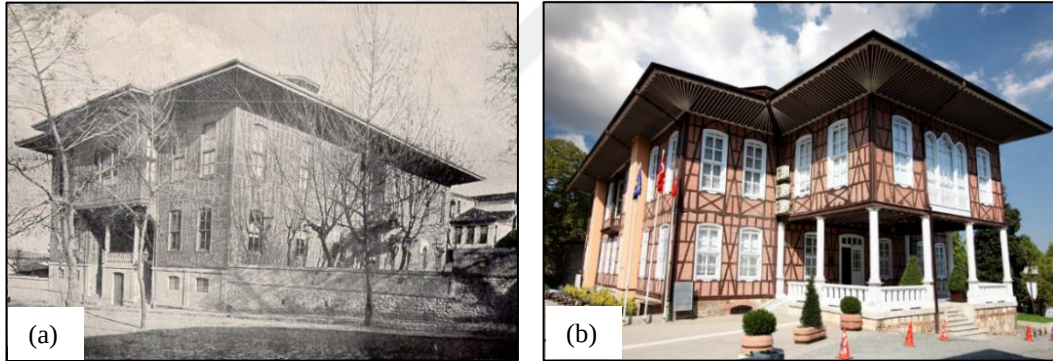


Figure 2.28: (a) View of the Municipality building from the southwest (1324 Bursa Salname)

Figure 2.29: (b) View of the Municipality building today.

Post Office-Telegraph Administration Building

During the administration of Ahmed Vefik Pasha, communication would not belong only to the military class but would be open to the whole community. In this context, a telegraph line was laid in Bursa and the telegraph has been put into the service of the citizens since 1870.

During the Governorship of Ahmet Vefik Pasha, a post office-telegraph house building was built in the city to facilitate communication (Figure 2.31) (4).



Figure 2.30: Bursa city theater building in 1879 (İstanbul Rare Collections Library, 90854-23)

The first post office building, constructed in 1879, including a telegraph unit, was built next to the Ahmed Vefik Pasha Theatre, having Ottoman architectural characteristics (Uslu, 2017, p.90; Köprülü-Bağbancı, 2007, p.87).

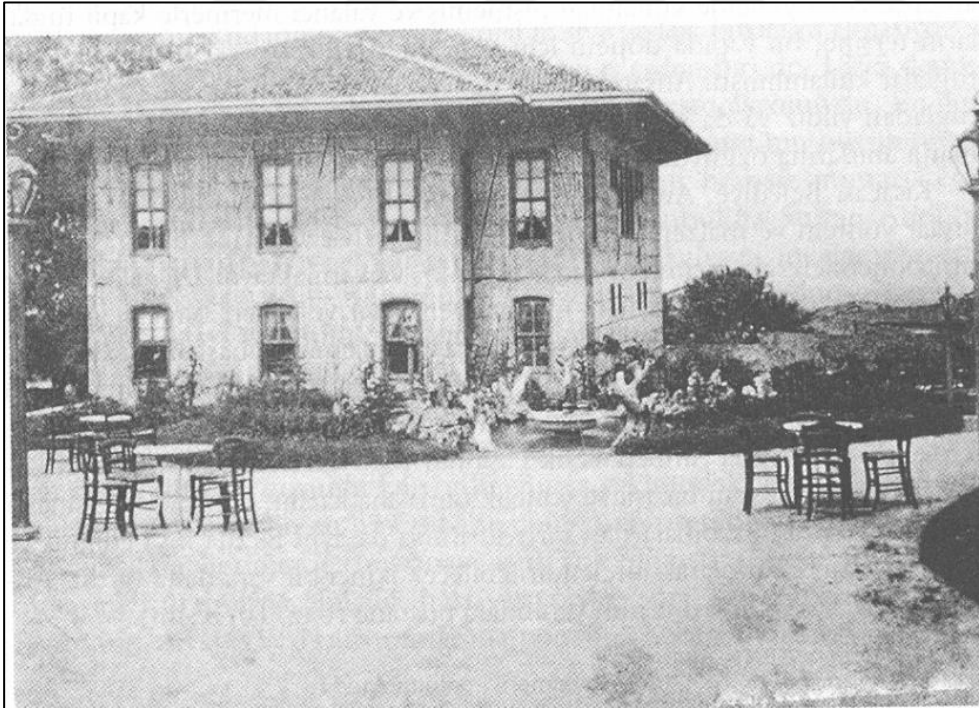


Figure 2.31: Post Office and Telegraph building (Saint-Laurent, 1999, p.95)

Police stations

It is known that the police station (Figure 2.32) and a fountain to the west of

Cumhuriyet Avenue were built between 1900 and 1905. Another fountain with similar characteristics and a police station building were located at the northeast corner of Cumhuriyet Avenue. However, the buildings to the west of Cumhuriyet Avenue have not survived to the present day (Dostoğlu, 2004, p.66). On the other hand, locations of the police stations were not shown on the maps (Figures 2.32, 2.33).



Figure 2.32: Mecidiye Police Station (Yavaş, 2003, p.77)



Figure 2.33: (a) The Police Station and fountain at the west entrance of Hamidiye Avenue in a postcard from the 1900s (Dostoğlu, 2001, p.339).

Figure 2.34: (b) Ulu Mosque and Mecidiye Police Station in the 1910s (Url-13)

As a result of the changing understanding of production and consumption in Europe in the 19th century, there was a transition from small workshops to factories and mass production. In this period, Western imports and consumption culture began to replace the production-based economy in Bursa (Işkın, 1985, p.546).

Also, different trade buildings consisting of shops selling luxury imported products, banks, office buildings, and silk factories were in and around the Ulu Mosque in Bursa

city center, as well as covered bazaars and traditional bazaars (Dörtok-Abacı, 2007, p.181-182) (Figures 2.33, 2.34).

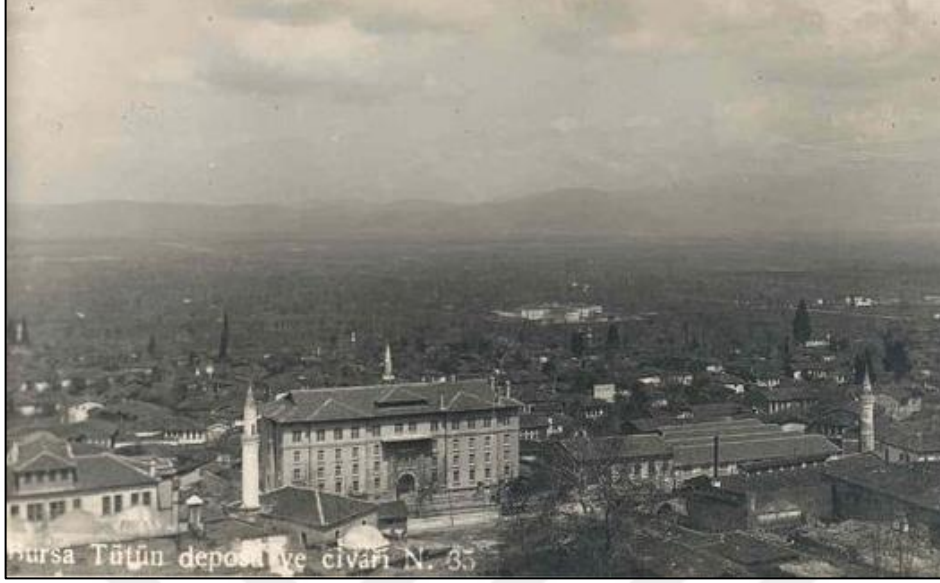


Figure 2.35: Tobacco warehouses on Cumhuriyet Avenue (Günaydın & Kaplanoğlu, 2000, p.235)

Nuri Pasha Cocoon Warehouse and Sark Dühan (Tobacco) Company's warehouse (Figure 2.35), which was used for cocoon storage and drying in the late 1800s, on Hamidiye Avenue, and the Nuri Pasha Silk Factory (5), which was built to the north of Fidan Khan, and the *Resulzade Boyahanesi*, which was built to the northeast of Sarrafiye Madrasah is an example of the new buildings emerged in the 19th century (Köprülü-Bağbancı, 2007, p.82).

The Ottoman Bank (6) can be given as an example of the new institutions required by the developing economy in Bursa (Figure 2.36). The first branch of the Ottoman Bank, whose headquarters was established in İstanbul in 1863, was opened in İpek Khan in Bursa. When the branch was relocated in 1875 during the Second Constitutional Era, a location behind Koza Khan was chosen, near the Municipality Building (Tekeli, 1999, s.20). The building, which was initially built as the İttihat ve Terakki (Union and Progress) Committee Building in the early 20th century, secondly used as the headquarters of the 56th Division during the Turkish War of Independence, thirdly used by the Ottoman Bank after the war, and then used as a commercial office building, and finally was demolished in the early 1980s (Bursa Encyclopedia, 2002, p.358).

Demir Khan, which can be seen on the 1862-dated map, appears as vacant land on the 1909-dated map (7). The demolition reason of the khan is unknown.

Towards the beginning of the 20th century, two-storied masonry shops were built in Uzun Çarşı with a height of five to six meters, receiving light from one side individually and in groups. More attention was paid to corner buildings in these new type of shopping areas (Figure 2.37). It was possible to come across such buildings with floor and eave moldings, jamb, and sill decorations (Köprülü-Bağbancı, 2007, p.82).

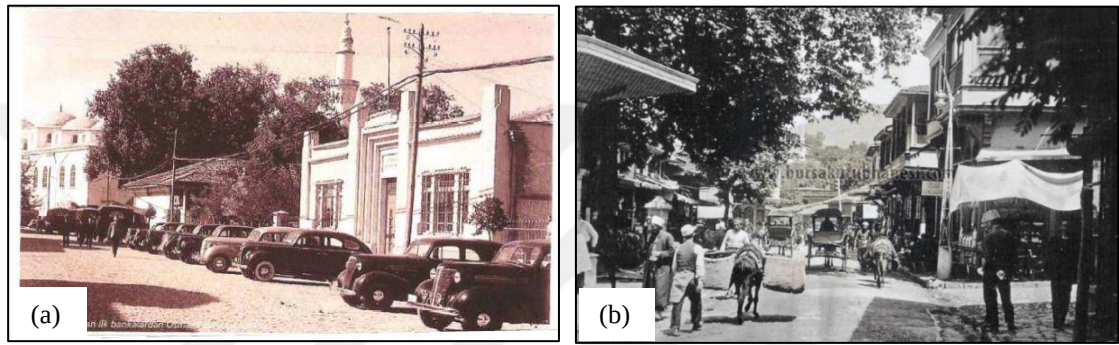


Figure 2.36: The Ottoman Bank, one of the first banks established in Bursa (Dostoğlu, 2004, p.56).

Figure 2.37: A view of Hükümet Avenue and two-three storied commercial buildings in the 1900s (Url-14)

Change of land use in the Khans District from 1862 to 1909:

Significant changes can be seen in the 1909-dated map compared to the previous 1862-dated map (Figure 2.38). The biggest urban change is the demolition of the building group in the north of the Khans District due to the newly opened Cumhuriyet Avenue, and the residential buildings here being replaced by commercial buildings either by reuse of the same buildings, or by the construction of new buildings. In addition, as a result of opening and widening avenues, the organic urban fabric has been replaced by a rectangular and geometrically divided urban fabric, with medium-size rectangular building blocks at its north side, and large-size geometric irregular shaped building blocks at its south.

There has been no change or destruction of religious buildings such as the Ulu Mosque, Orhan Mosque and historic khans that constitute the trade center. There is a commercial area developing in the east-west direction between the Citadel and

Gökdere Stream.

Due to the newly opened and widened streets with the aim of creating a modern administrative center with newly built public buildings and outdoor spaces in terms of land use draws attention in 1909-dated map. On the 1909-dated map, the area is shown as the ‘Palais des Gouvernement’ or the Government Palace (1). The prison building (2) is located at the intersection of Saray, Yeniyol and Hamidiye Avenues, and the post office and telegraph office building (3) are located just to its west. The area opposite to the Government Palace is shown as the mosque area (Alaca Masjid) (4).

The undefined area to the south of Orhan Mosque in 1862-dated map is shown as the Municipality Building (5) in 1909-dated map, as it has been built in this period, in 1879.

In addition, the green areas surrounding Orhan İmaret, indicated in 1862 dated map, were replaced by commercial establishments in 1909 dated map (6). Demir Khan, which is present on the 1862-dated map, appears as a vacant area on the 1909-dated map (7).

2.5. Bursa in late 1920s

In this section, the historic, social, cultural, and economic developments that affected Bursa Historic City Center and Khans District between 1909-1924 are examined.

2.5.1. Historical developments from 1909 to late 1920s

The Committee of Union and Progress, *İttihat ve Terakki Cemiyeti* which was founded by the supporters of the Constitutional Monarchy (*Meşrutiyet*), called the Young Turk, both at home and abroad, started riots in the country. Thereupon, as the events escalated, Sultan Abdulhamid II re-enacted the constitution on July 23rd, 1908, and declared the Second Constitutional Monarchy. After the proclamation of the Constitutional Monarchy, there were some uprising attempts by pro-sovereign groups. The failure of the Committee of Union and Progress to dominate the administration, the reactions of the people to the loss of Land and the opposition of the opposing groups created a new revolutionary environment in the country.

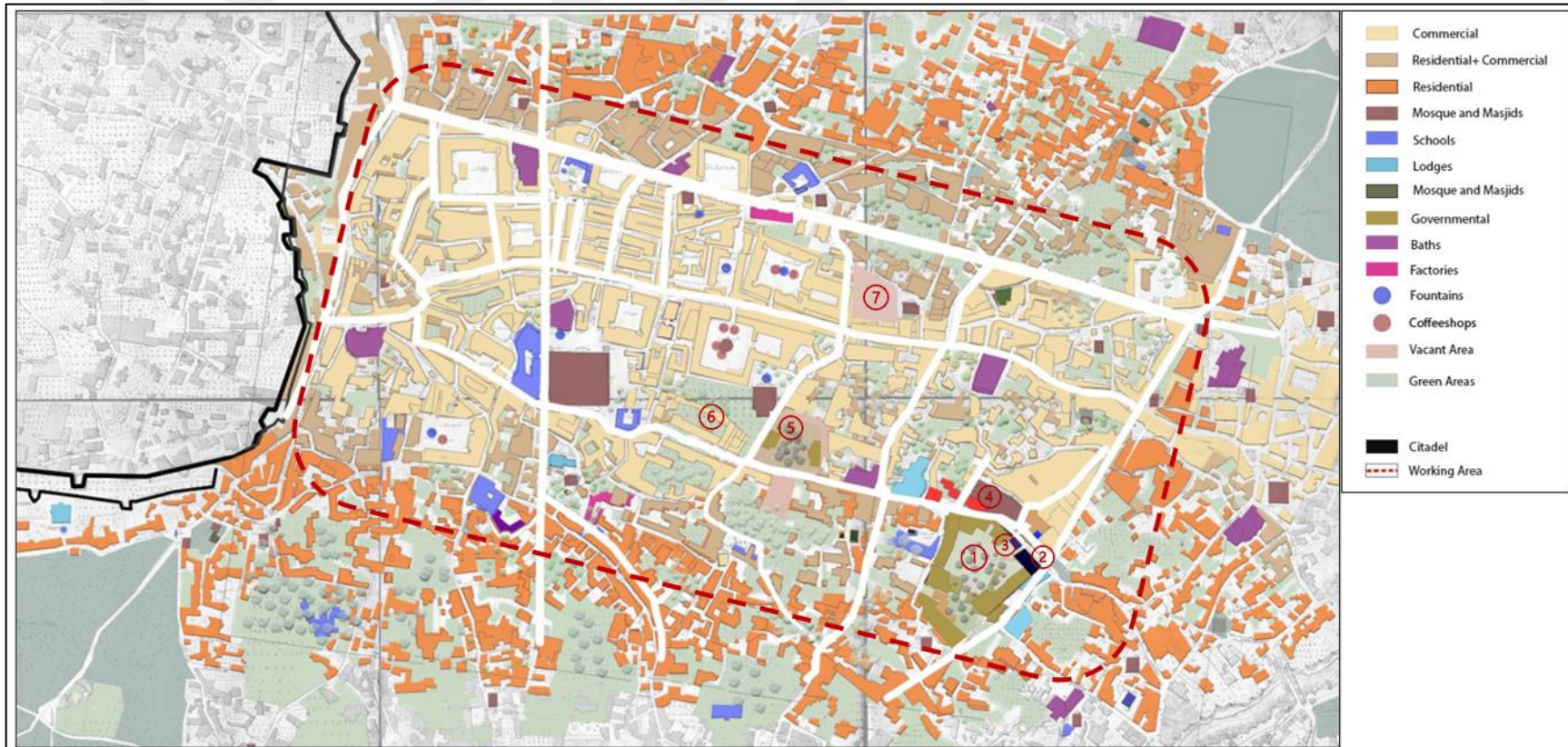


Figure 2.38: Change of Land Use in the Khans District from 1862 to 1909 (through the superposition of 1862 map and 1909-dated maps by the author)

The Movement Army entered İstanbul on April 21st and suppressed the uprising. The Committee of Union and Progress thought that the events were by the order of the Sultan. The assembly, which convened on April 27th, 1909, decided to dethrone Abdulhamid II on the grounds that he had a role in the uprising. He was replaced by his brother, Mehmet Reşat, who was a supporter of the Constitutional Monarchy (Kaplanoğlu, 2006, p.137-141).

During the proclamation of the Constitutional Monarchy, Hüdavendigâr Province, whose center was Bursa, consisted of Bursa, Bilecik, Eskişehir, Kütahya, Afyon and Balıkesir sanjaks. Its total population was approaching 1.5 million (Biren, 1993, p.372).

In the 1920s, the districts of Bursa were Mudanya, Gemlik, Orhangazi, M.KemalPaşa, Karacabey and Orhaneli. The sanjaks of Karasi (Balıkesir) in 1913, Kütahya and Karahisar (Afyon) in 1915, and Ertuğrul (Bilecik) in 1918 left the Hüdavendigâr Province. In 1918, the name of the province was changed to Bursa. There were important changes in the administration with the Constitutional Monarchy period. The city was governed by the Provincial Assembly and its elected members, and all activities were followed by this assembly. There were representatives from both the districts and the minority population in the city in the parliament (Kaplanoğlu, 2006, p.143).

The Ottoman Government wanted to attend the Lausanne Peace Conference (*Lozan Barış Konferansı*) together with the Government of the Turkish National Assembly. This meant that the Entente states still accepted a government in İstanbul. As a result of the danger of the İstanbul and Ankara governments coming into conflict, the necessity of the abolition of the İstanbul government and the abolition of the sultanate arose. Atatürk and some of the deputies demanded the abolition of the Sultanate with a joint proposal on October 30, 1922. On November 1st, 1922, the sultanate was abolished, and the Republic was proclaimed on October 29, 1923. On March 3rd, 1924, the Caliphate was officially abolished. With the 1921 and 1924 constitutions, the existence of a new and free Turkish Republic was guaranteed instead of the disintegrating and disappearing Ottoman empire (Kaplanoğlu, 2006, p.259-260).

2.5.2. Social and economic structure of Bursa between 1909 and late 1920s

After İzmir, Aleppo, Damascus and Beirut, the most populous provincial city of the Ottoman Empire was Bursa, which preserved its cosmopolitan structure during the Constitutional Period. While the population of the city was 1,038,761 in 1888, it was 1,430,198 in 1907. In 1909, the population distribution in the center of Bursa was as follows: 137,654 people, including 101,912 Muslims, 23,434 Greeks, 6,530 Armenians, 3,514 Jews, 685 Catholics, 254 Protestants, 1,315 Copts/Gypsies. Since immigration from the Balkans in 1912 was not very intense, it did not have much effect on the population. However, Armenians in Bursa were expelled from the province in 1915. The return of the Armenians and Greeks who were expelled from the province in 1918 with the Armistice caused to population increase in Bursa (Bursa Sergisi, 1909, p.36).

According to the records of the 1908 Provincial Council, the main source of income in Bursa was silk and cocoon farming. An industrial census was made in 1909 and it was determined that there was a total of 152 silk factories in Bursa together with its districts. After the 1810s, the highest silk production in Bursa was in 1910. However, the Constitutional Monarchy brought with it new partnerships and cooperatives in the industry. 12 weavers from Bursa came together and rented a building in 1910 and started joint production. It is known that in 1917 there were 1400 silk looms in Bursa. In the industrial census made in 1913, 41 silk establishments and 127 workshops were determined in Bursa. In the country, 5 of the 6 factories working with machines were opened in Bursa during the Constitutional Period. In addition, silk production was mostly done on hand looms in homes (Eldem, 1994, p.73-88).

With the World War I, great changes occurred in economic and social life. Domestic production has decreased considerably, and the dominance of foreign goods in the domestic market has caused the cost of living. The European domination, which affects the economy in every field, also affected the socio-cultural life, and the western ideology started from the center and progressed to the countryside. The 4 million population lost due to the war in Turkey caused a loss of labor and caused stagnation in the economy.

Since the Ottomans were on the opposite side of the French in the war, the factories in Bursa stopped the export of silk thread and cocoons to Lyon and started to sell them

to Germany, which was their supporter.

With the national economic policy carried out to develop the deteriorating economy and national industry, the capitulations were abolished in 1914 to create a national capital, to operate forests and mines, to develop agriculture, and to make Ziraat Bank independent. However, during the years of the War of Independence, as a result of the Greek occupation of Bursa, turmoil increased and a great economic crisis was experienced in Bursa (Kaplanoğlu, 2006, p.177-180).

The declining population and workforce in the World War II made it necessary for women to be active in agriculture and industry. For this reason, articles recommending the admission of women to agricultural schools have been published in journals.

The political and economic vitality experienced with the Constitutional Monarchy brought with it developments in social and entertainment life. It can be said that even the war did not affect it. When it comes to entertainment and cultural centers in Bursa, coffeehouses come to mind first. Greeks and Armenians also had many coffee houses in Bursa. Over time, these places have become places where daily newspapers, books and poems are read, chatted, and socialized. After the Second Constitutional Monarchy, a different understanding of western culture emerged, especially in Setbaşı. Many hotels and casinos have been opened here. The popular places of social life have been hotels (Kaplanoğlu, 2006, p.190-192). Theaters and cinemas also continued their activities during this period.

During the rule of Ahmet Vefik Pasha, the Government House and some administrative buildings were built on the site of the present Republic Square. Consisting of buildings lined up around a courtyard, this area is defined as Sarayönü, and the Theater and garden built by the Pasha across the area formed the important public outdoor spaces of the period.

2.5.3. Urban structure of Bursa in late 1920s

In this section, the urban structure of Bursa Khans District in late 1920s is analyzed under three morphological components as: urban fabric, urban circulation network and land use pattern. In addition, the changes of urban fabric between 1909 and late 1920s are examined and put forward.

2.5.3.1. Urban fabric in late 1920s

Although no significant changes can be followed of the urban fabric in the region during this period (Figure 2.39), it is seen that sparse building fabric in the form of houses with gardens were gradually replaced by more crowded housing areas (Figures 2.40, 2.41). Another point on the map is the construction of buildings with larger footprints by combining small parcels and new modern buildings were built in place of wooden and garden houses.

Cumhuriyet Square, created by the construction of the Provincial, Courthouse and Finance buildings (1), and later completed with the construction of the Atatürk Monument and Bursa Community Center, was designed to create a public outdoor space in Bursa, as in many other cities of Turkey. Thus, it has become the most important public outdoor space of the city.

The Municipal Garden (2) in front of the Bursa Municipality Building, which has been used since the Constitutional Period in the first years of the Republic in Bursa and has been a social space, continues its function as a public park.

Some historic buildings lost their function in this period (for example, dervish lodges and mosques), some of them were demolished due to road expansions and some of them due to new requirements. For example, it is known that the *Münzevi Lodge* (3), located at the corner of the road towards Setbaşı and partly burned down and partly destroyed in the second half of the 19th century, continued to operate until 1925 and ended its activity in accordance with the law of closure of lodges and zawiya enacted at that time (Kepecioğlu, 2009).

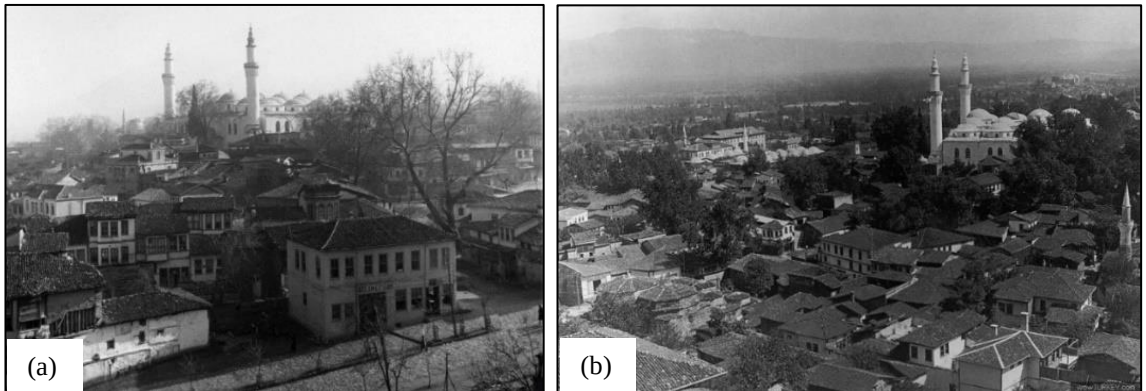


Figure 2.39: (a) View of the Ulu Mosque from the Citadel in the 1920s (Bursa City Museum Archive)

Figure 2.40: (b) General view of the Khans District in 1920 (Bursa City Museum Archive)



Figure 2.41: Urban fabric of the Khans District in Bursa in late 1920s. (Redrawn by the author after late 1920s -dated Map)

Change of urban fabric in the Khans District from 1909 to late 1920s:

When the two maps are superposed and compared (Figure 2.42), the biggest change seen in the urban fabric is that the sparse building system in the north of Cumhuriyet Avenue became denser and turned into defined building blocks (1).

The Municipality Building, constructed in 1879, was shown as two buildings in the area shown as the Municipal Garden on the 1909-dated Map (2). In the 1907-dated Salname Map, it is in the same area as in late 1920s (Figure 2.43).



Figure 2.42: The Municipality Building in 1907-dated Salname Map, edited by the author (Bursa Metropolitan Municipality)

The administrative buildings such as Prison and Post Office Building in the Government Area, seen on the 1909-dated map, are demolished, and replaced by the Courthouse and Revenue Office Buildings (3).

It is seen that the vacant areas within the commercial building fabric in the Khans District are filled and transformed into built areas in late 1920s (4).

On the late 1920s -dated map, the residential urban fabric density in the east of Yeniyol was increased, and the urban gaps were densified with the addition of new buildings.

While there were rows of buildings in the area between the Ulu Mosque and Orhan Mosque on the 1909-dated map, the Ottoman Bank and a Cinema building were built on the late 1920s map (5). As stated on the 1921-dated City Map, the surroundings of these buildings served as public open space – square (Figure 2.44).

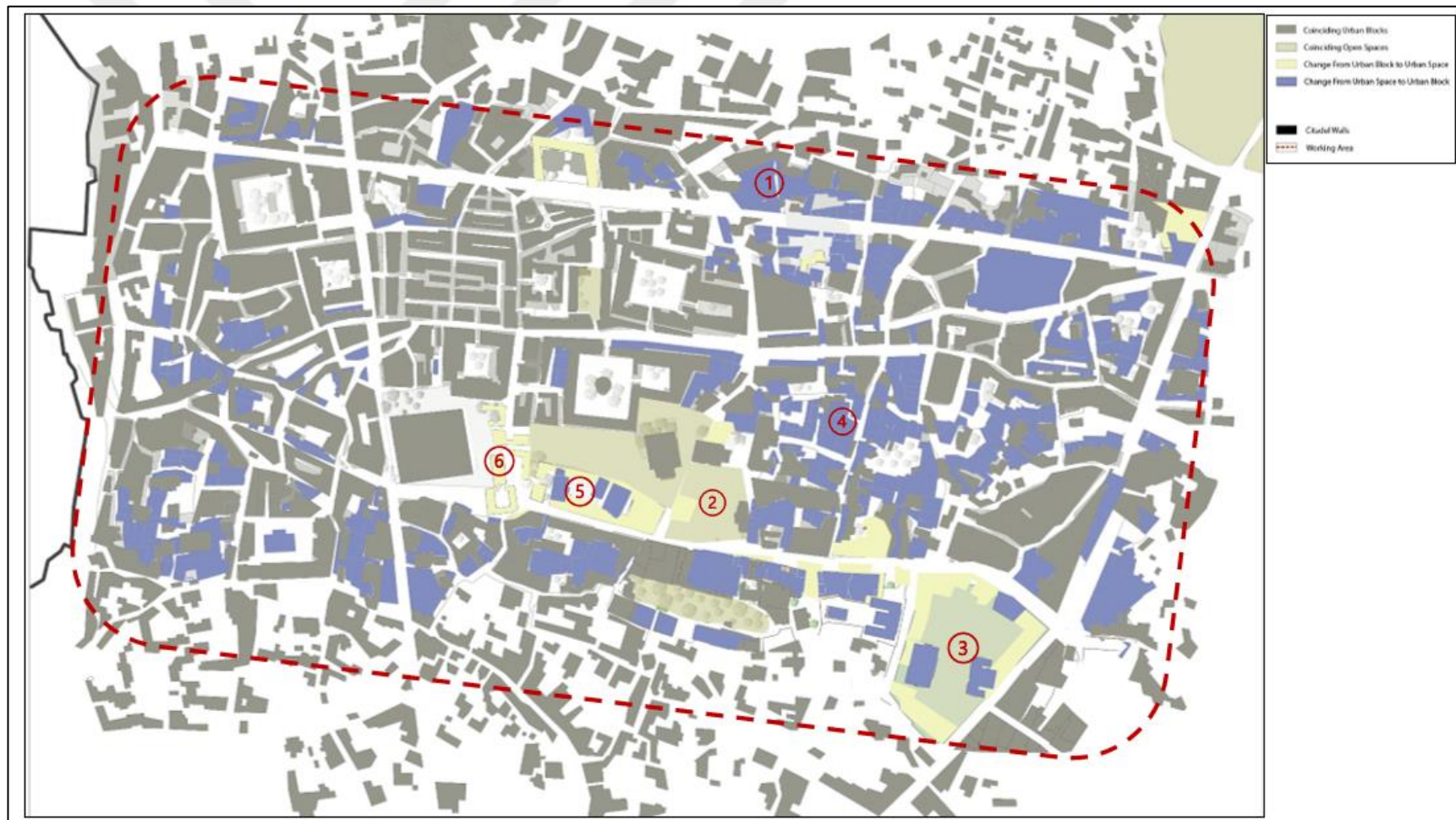


Figure 2.43: Change of Urban fabric in the Khans District from 1909 to late 1920s (through the superposition of 1909 and late 1920s maps by the author).

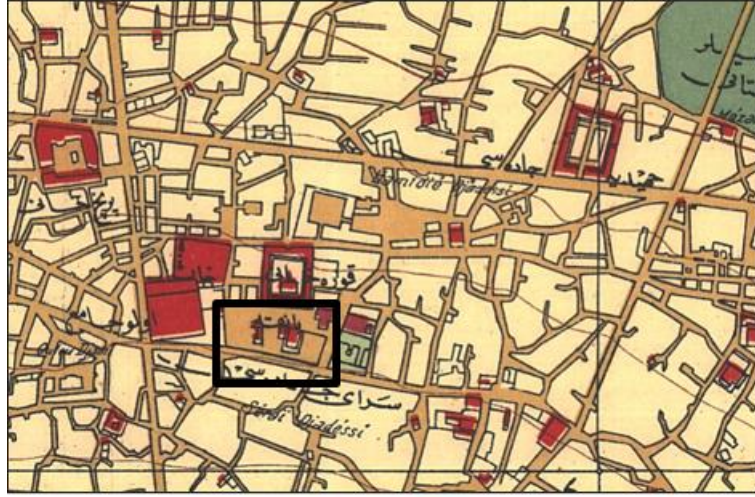


Figure 2.44: The Ottoman Bank and Zevk Cinema building in 1921-dated Map, edited by the author (Bursa Metropolitan Municipality)

It has been observed that the madrasah and commercial buildings located to the east of the Ulu Mosque have been destroyed (6).

Deveciler Cemetery, the public open space around the Orhan Mosque, the Municipal Garden and the Government Square were used as public open spaces.

2.5.3.2. Urban circulation network in late 1920s

In this period, the most striking feature of the urban circulation network map is the opening of new and straight roads within the organic pattern of the city and the widening of existing roads to make them suitable for vehicle traffic (Figure 2.45). In addition, it is seen that the indented and irregular street façade lines in the previous maps are seen to be brought to the same and straight contour lines.

Hükümet (Atatürk) Avenue the major route for the whole Bursa and the historic city center, lying on east-west axis, kept its importance as in late 1920s.

In addition, Yeniyol and Fevzi Çakmak Avenues have also become important elements of urban transportation in the north-south axis.

It is seen that the names of avenues were changed with the Republic. Avenues whose names have changed are Gazi Avenue (1), Cumhuriyet Avenue (2), Zafer Avenue (3), İsmet Pasha Avenue (4), Fevzi Çakmak Avenue (6).

Uzun Çarşı (Long Bazaar) Street (5) continues to connect the covered bazaar and other bazaars.



Figure 2.45: Urban circulation network of the Khans District in Bursa in late 1920s. (Redrawn by the author after late 1920s map)

2.5.3.3. Land use pattern in late 1920s

According to the land use analysis of the late 1920s map, it is possible to say that the primary building group forming the area is commercial buildings (Figure 2.46). This density is followed by a combination of commercial and accommodation buildings. Commercial activities concentrated along the covered bazaar, khans and the long bazaar maintain the area's status as a trade center.

Another remarkable group of buildings the row of shops in the area determined to be the Old Marketplace in front of the Ulu Mosque, have been replaced by public buildings such as the Ottoman Bank (1) and the Zevk Cinema (2). The area next to the cinema is determined as the Municipal Garden (3). This area continued to function as a public park.

Mosques and masjids stand out as religious buildings. Information related to the church and synagogue in the study area could not be found. In addition to this, the *Mısri* Lodge (4) to the north of Gazi (Atatürk) Street and the *Münzevi* Lodge (5) to the east of the Government Square continue their activities in this period (Figures 2.47, 2.48).

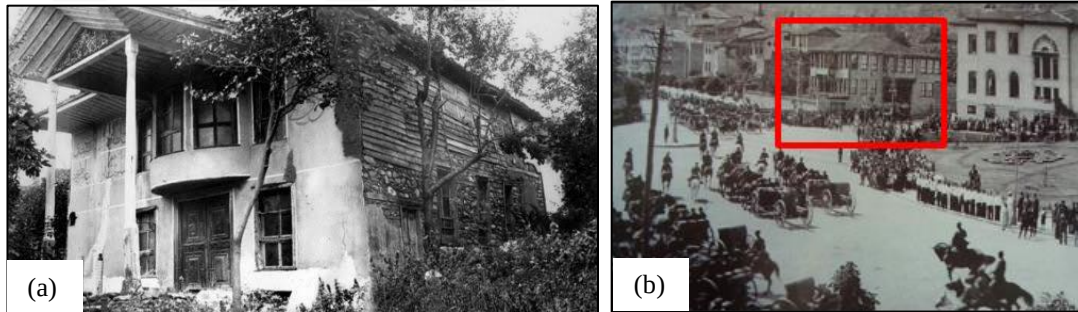


Figure 2.46: (a) *Mısri* Lodge (Bursa Metropolitan Municipality Archive), Figure 2.47: (b) Two-storied, 16-room, *Münzevi* Abdullah Efendi Lodge, edited by the author (Bursa Metropolitan Municipality Archive)

It is known that there is an existing public building in the open area in front of the Municipality Building. On the later maps, there is information that this building is the Mountaineering Club (6). However, no information on the function of the building was found on the current map.

The administrative (the Provincial-Courthouse-Revenue Office) buildings in Republic Square are shown on this map, their details will be given on the 1957 map (7).



Figure 2.48: Land use pattern of the Khans District in Bursa in late 1920s. (Redrawn by the author after late 1920s map)

The area shown as Demir Khan area on the 1909-dated map (names such as Vezir Khan, Demir Pasha Khan, Kubbeli Khan are also used) is indicated as the market (8) (*Açık Pazar Mahalli*) locality on this map.

The building, located to the north of Fidan Han and referred to as the Osman Efendi Silk Factory on the 1909 map, left its place to a multi-building group, which is also a factory (9).

The building next to the *Perşembe Hamamı* (Perşembe Bath) was used as a tobacco warehouse (10).

Another building that attracts public attention in the area was the fire extinguisher garage located to the west of Piriñ Khan (11).

There are five public baths in the study area as part of the city's water system. These are, 12a: Çakırağa Bath, 12b: Şengül Bath, 12c: Orhanbey Bath, 12d: Perşembe Bath, 12e: Nalıncılar Bath.

As it can be understood from the photographs of the period, when we look at the street form of Gazi (Atatürk) Avenue, it is seen that the two and three storied wooden skeleton with mudbrick infill traditional buildings were used as shops and social commercial spaces on the ground floor, while the upper floors were used as hotels, warehouses and some of them for housing (Figure 2.49).



Figure 2.49: General View of 1920s Gazi (Atatürk) Avenue (Bursa City Museum Archive)

Change of land use in the Khans District in Bursa from 1909s to late 1920s:

According to the data obtained when two maps are superposed (Figure 2.50), it has been observed that the small commercial buildings and the madrasah around the Ulu Mosque have disappeared (1).

With the road widening works, the commercial buildings on the Ulu Mosque façade

of Saray Avenue have disappeared (2).

One of the buildings in the Municipal Garden was destroyed (3), and the building to the east was used as the Mountaineering Club (4). Vaiziye Madrasah was refunctioned as a commercial building (5). The madrasah next to the İvaz Pasha Mosque was closed (6). The Tavukçu Bath, located next to the Pirinç Khan, was used as a wine store (7).

The Eski-Yeni Khan, adjacent to the Perşembe Bath, was replaced by buildings used as tobacco warehouses (8). The bath building in the east of the Municipal Garden has disappeared (9). The Baba Efendi Lodge has disappeared (10). The building next to the Mahmut Pasha (Fidan) Khan building was demolished and used as an open marketplace (11).

In place of the administrative buildings, Prison and Post Office Buildings in the Government Area, the Government House, Revenue Office, and Courthouse buildings were built (12). The madrasah on Hamidiye Avenue, opposite the area where the silk factories were located, has disappeared (13).

2.6. 1924-dated Lörcher Plan

The first planning study for the city of Bursa was made by the German Architect Carl Christopher Lörcher in 1924. Since the plan is not kept in the archives of governmental institutions in Bursa, it could not be reached. Despite correspondence with the institutions in Germany on the subject, the plan could not be found, as most of the archives in Germany were destroyed during the World War II (Polat, 2011, p.73).

Under the influence of the Garden-city¹⁴ Approach of the period, this plan, which was not suitable for the existing urban fabric, was not applied depending on the map of 1912 (Kaplıanoğlu, 2008, p.78). However, it is still possible to see the effects of this plan on the city. The Citadel entrance on Atatürk Avenue was opened in line with these plan decisions (Batkan, 1996, p.249).

¹⁴ The garden-city approach was proposed by the British City Planner Sir Ebenezer Howard to offer people healthier lives in nature by transferring some densely populated parts of the big city to rural areas. According to this approach, the houses were planned to be built within gardens and green spaces in a certain scheme along with the surrounding squares and public buildings (Broadbent, 1995).

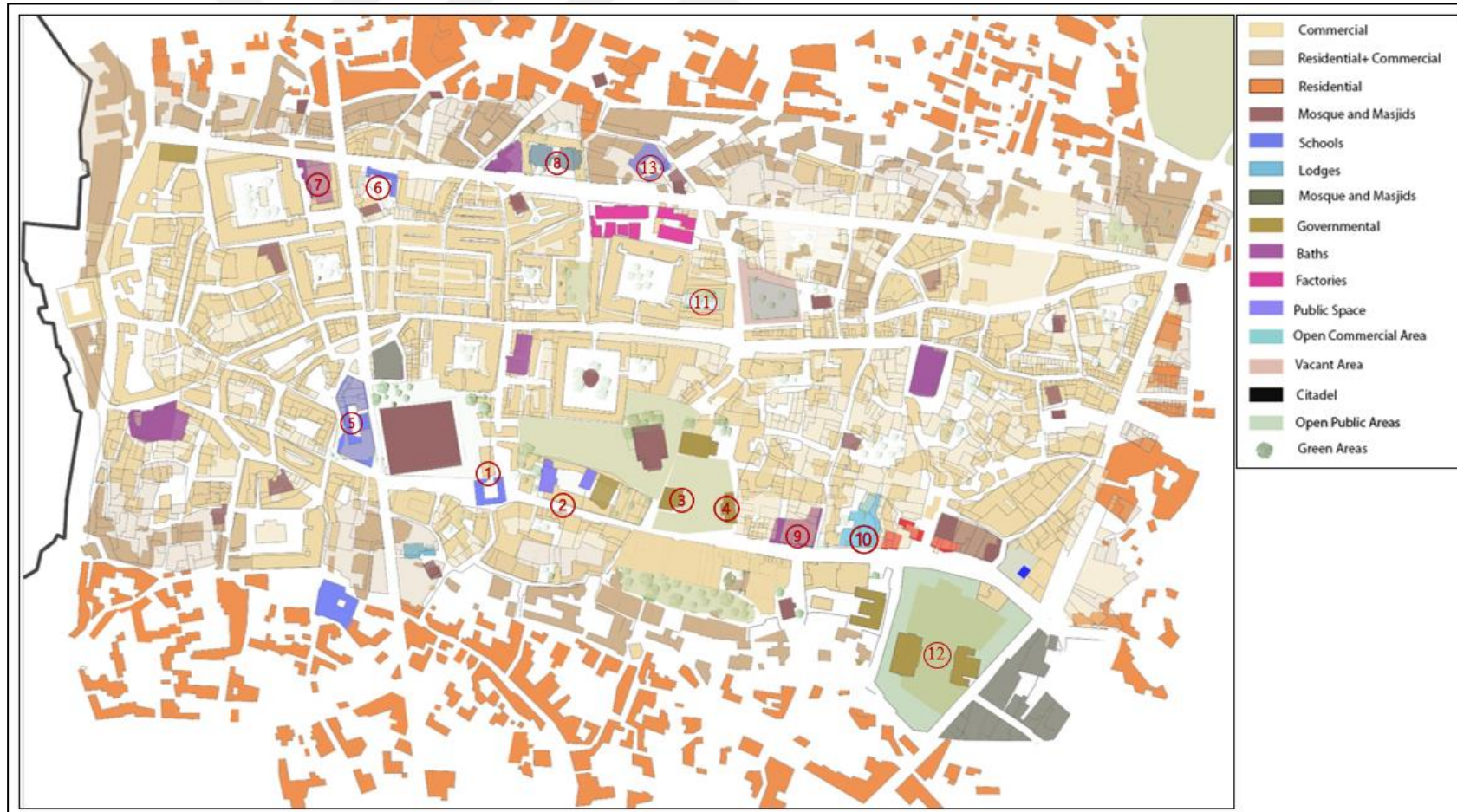


Figure 2.50: Change of land use in the Khans District in Bursa from 1909s to late 1920s. (through the superposition of 1909 and late 1920s maps by the author)

3. EVOLUTION OF BURSA HISTORIC CITY CENTER IN THE EARLY REPUBLICAN PERIOD (late 1920s -1957)

3.1. Bursa from late 1920s to 1957

In this section, the social, economic, cultural, and Historical Developments that affected Bursa Historic City Center and Khans District between late 1920s and 1957 are examined and put forward.

3.1.1. Socio-economic structure of the city

The Republic of Turkey, which was established with the proclamation of the new Republic in the 1923, experienced changes in the economic and social structure after the World War II. Bursa experienced its third major transformation as a result of the rapid increase in the population of the city during and after the Early Republican Period, the expansion of the city industry to new areas such as the automotive sector and becoming a very important industrial center. This transformation has led to the reshaping of the urban form.

After the World War II, Turkey's increasing population density increased urbanization and affected Bursa as well as all other cities. However, the acceleration of Bursa's growth rate compared to the growth rate of other cities occurred after 1970. The most important reason for this increase was that the growth and development of the İstanbul industry accelerated the industrialization of Bursa as well. Secondly, it was the reflection on Bursa of the industrialization initiated in Anatolian cities by the new regulations in industrial loans after the 1970s.

In the first years of the Turkish Republic, the Greek and Armenian population in Bursa decreased considerably. With the migrations from Greece and the Balkans, the city was mostly dominated by the Muslim population. Bursa, which showed significant progress in 1877 as a city of immigrants, has continued to develop from the first years of the Republic to the present day.

The values and the problems of the economy in the period between 1923 and 1930 are determined. In this period, the main function of the economy in Bursa, as the fifth most

populated city in Turkey, was industry. Oil, soap and wineries, silk thread and cocoon enterprises were active in the economy of the city. Organizations defining the economy were built in two regions within the city during these years. These regions: the area and its surroundings near the Cilimboz Stream to the west of the Citadel, the Setbaşı and Umurbey neighborhoods to the east of Gökdere Stream, the Muradiye and Demirkapı neighborhoods developed apart from the residential areas. On the other hand, some of the factories in the other regions were scattered within the residential area. Pedestrian access and water use were the reasons why the factories were established on the slopes of Uludağ, close to the residential areas (Levent et al., 1994).

According to Boratav (1990), ‘the period of 1923-1929 is the period of reconstruction of the economy in open economy conditions. In this period, the foundation of Bursa İpek-İş Factory was laid in 1925 and it started to serve in 1933. Boratav states that the period of 1930-1939 is defined by protectionist statist industrialization. In this period, Bursa Merino Factory, the foundations of which were laid in 1935, started production in 1938. In this context, it is seen that two important weaving factories were built in Bursa for the purpose of development. In addition, the environment of the factory was opened to settlement and its development was planned (Kaprol, 2002, p.172 from Boratav, 1990).

Looking at the first years of the Republic, some attempts were made to revive the post-war economy. The silk industry, which constitutes a large part of Bursa's economy, and the city's thermal springs, that have maintained their importance throughout history, were given priority. Examples of these were Çelik Palas, which was opened in 1938, the Park Hotel located in the Çekirge district, and the construction of the Pool Park next to the old spa. In addition, the Grand Uludağ Hotel, which was opened in 1930, brought a new tourism function of skiing to Bursa (Tekeli, 2007, p.87-89).

With the First Industrialization Plan prepared in 1933, it was planned to build two factories. The first is the Merinos Wool weaving factory, the foundation of which was laid in 1935 and put into operation in 1938, and the second is the Gemlik Artificial Silk Factory, the foundation of which was laid in 1934 and opened in 1938. The industry incentive law also enabled the development of the industry. İpek İş Factory, which emerged in the 1930s, Uludağ Gazoz, which started to be produced in 1933, and the workshops established in 1934 and 1938, prepared the environment for the industrial developments of the following years.

The establishment of Bursa İpek-İş Factory provided the development of Bursa industry and new job opportunities. The transportation facilities provided by Mudanya Road were effective in choosing the location of the factories. In the spatial development of the city, the gaps within the city were filled rather than spreading (Levent et al., 1994).

When Bursa started to experience rapid urbanization in parallel with the urbanization in Turkey after the World War II, Bursa was not yet ready to make a leap in industrialization. Industrial developments in this period were mostly made by small sized producers. Small scale weaving became widespread thanks to small machine looms in weaving. The development of the rayon factory in the previous period was effective in this spread. The first canning factories began to be established in the food industry. Vatan Canned Food Factory was established in Karacabey in 1951, and Tamek Canned Food Factory was established in 1957 at the entrance of the old Yalova Road. In the second half of the 1950s, due to Turkey's foreign debts, the environment that allowed imports in the metal and machinery industry was influential in Bursa. The production of metal goods and machine parts such as turning and milling in Bursa, which dates to the Pre-Republican Era, provided a significant advantage. Tolon Machine industry, which was established in Bursa in 1942, realized the first domestic washing machine production in Turkey. At the end of the 1950s, there were about 30 metal casting workshops in Bursa that produced 750 tons of cast products. In this period, the first developments of the automotive supplier industry began to be experienced (Yurt Encyclopedia, p.1700-1713).

Since the Ottoman Period, industrial activities have been concentrated in Muradiye and Setbaşı Districts due to water sources and proximity to workers. The newly established factories were established around today's Mudanya Avenue, and the city developed towards the plain in the west direction. Large industrial establishments heralded the development of the city in the western direction. Small arts and craftsmen were concentrated around the Grand Bazaar and Setbaşı Bridge. Financial and administrative, educational buildings were built in and around the city center (Levent, et al. 1994).

3.1.2. 1940-dated Prost Plan

Since the development plan for Bursa prepared by German Planner Carl Löcher was

under the influence of the garden-city movement and completely ignored the existing urban fabric and created problems in practice, a new development plan was commissioned to the French architect Henri Prost (Figure 3.1) (Boysan, 1999).

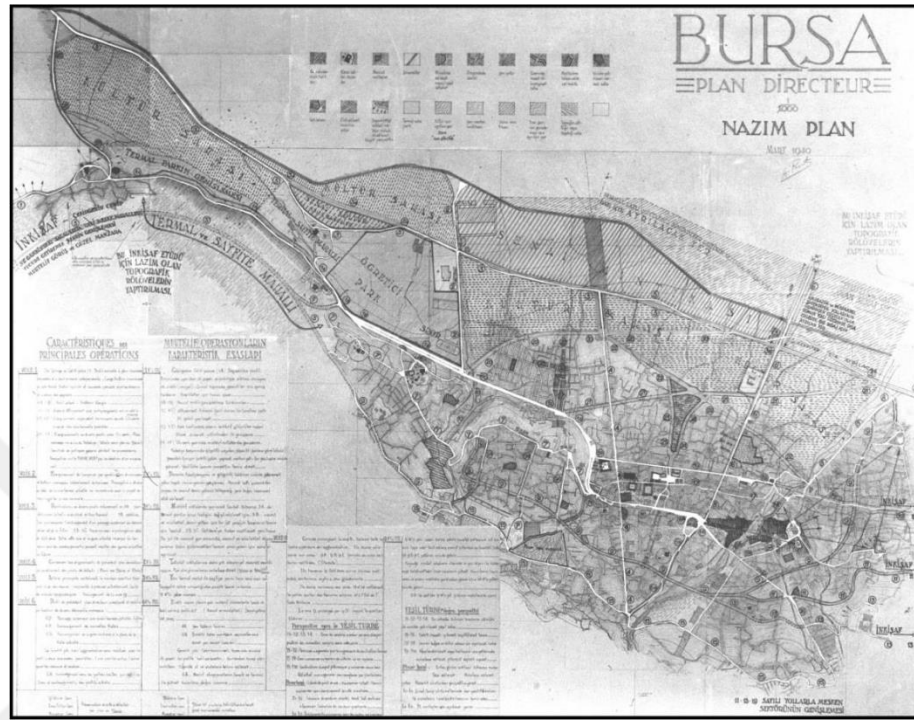


Figure 3.1: 1/5000 scale Bursa plan prepared by French architect-city planner Henri Prost (Sibel Polat Archive)

Prost, who made the plans for İstanbul in 1936, also carried out the Bursa development plan studies between 1938 and 1944. The plan he proposed for Bursa during these years was a study in line with the general principles of the axial planning system applied by Baron Haussmann during his renovations in Paris, visually and functionally focusing on the most important monuments of the city. In the plan of Prost, it is aimed to preserve the original urban fabric of the city and to reveal its natural beauties by preserving the historic building and its surroundings (Vural, 2008, p.96).

The main objectives of the Prost Plan were to widen the streets and make them suitable for motor vehicle traffic and to ensure services such as the distribution of electricity and water to the people of the city through an infrastructure. In this transformation process, pedestrian circulation was dominant due to the narrow streets in the 19th century, and towards the end of the 19th century, they were widened for horse-drawn carriages under the administration of Ahmet Vefik Pasha. Prost mentioned that the

avenues and streets have been widened again for motor vehicles this time (Prost Plan Report, 1944).

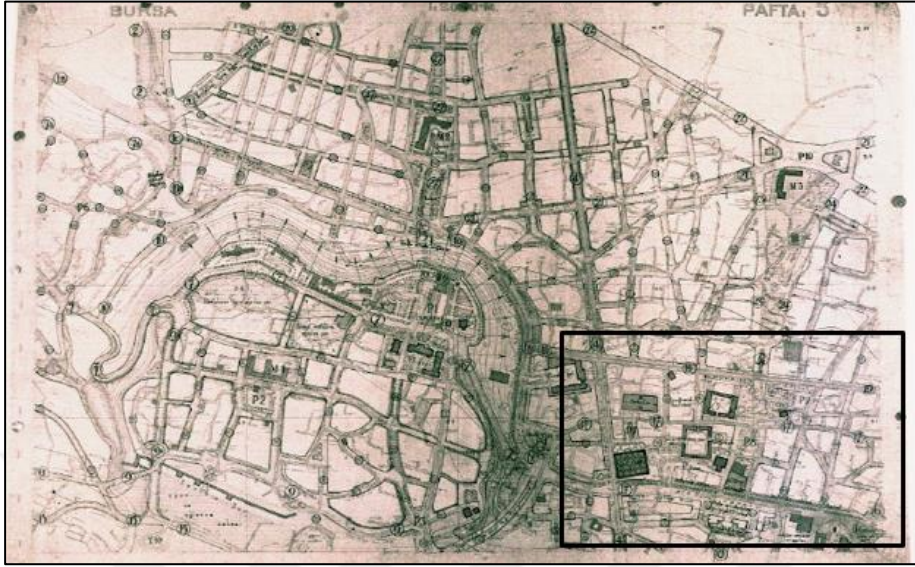


Figure 3.2: Khans District in 1/2000 scale Bursa city center plan dated 1940, prepared by Henri Prost (Sibel Polat Archive)

Prost did not consider the preservation of the urban fabric for the realization of these expropriations. According to him, it was not very rational to preserve the traces of the old streets and avenues created in line with the needs in the previous periods, and that it would be more beneficial to shape the current situation by making a study for current needs (Dostoğlu & Vural, 2004, p.124). In his plan, only the monumental buildings were wanted to be protected within the scope of the protection of the historical heritage.

Within the scope of the Prost Plan, it was decided to open the unproductive parts of the Bursa plain to new settlement. Thus, the housing needs of the rapidly developing city will be met. It also suggested that houses should not be made of materials likely to collapse and burn easily, such as wood, which is the local material of the traditional houses but more durable materials and structural systems such as masonry.

Another decision was to widen Atatürk Avenue and propose the construction of multi-storey apartment buildings on it. The apartment and office buildings on the avenue started with these decisions. Henri Prost proposed buildings with arcades applied on

south part of the Atatürk Avenue (Dostoğlu & Vural, 2004, p.124-125; Gönül et.al, 2017, p.8).

He suggested transforming the Çekirge region into a tourism and spa center. This decision played an important role in the future growth and development of Bursa and it's becoming a tourism center (Dostoğlu & Vural, 2004, p.124). Finally, he suggested that a section on the Bursa-Gemlik Road would be reserved for the industrial zone (Prost, 1938). This proposal is, seen as one of the most important decisions of the Plan. Thus, Bursa would become an international trade center.

In this context, it is observed that the existing axes in the city were strengthened with reference to monumental buildings. It is possible to observe the traces of his approach still in the city today, which provides a linear integrity in historic centers by continuing the Atatürk Avenue axis towards Yeşil Neighborhood. However, when the unpredicted dense urban structure removed the perceptions of the historic monumental buildings or building groups that were the reference points of the new axes, these axes became unidentified. Thus, the city was surrounded by three important avenues, and even a center like the Khans District became unreadable within the urban fabric (Köprülü-Bağbancı, 2008, p.106-107) (Figure 3.2).

The Prost Plan had positive qualities like preserving the traditional urban fabric, historic monuments, and street pattern of Bursa, keeping the industrial facilities and railway system out of the city. The inconsistency of the axial planning approach developed by Prost influenced by his Paris Plan and the different topographical situation of Bursa caused some problems. Discarding the old traditional residential fabric in order to widen the streets would cause severe damage to the historic urban fabric. Therefore, this plan was not fully implemented (Vural, 2008, p.96-97).

It can be seen the previous condition of Khans District before the Prost Plan in aerial photo of 1939 in Appendix 1.

3.1.3. Urban structure of Bursa in 1957

In this section, the urban structure of Bursa Khans District in 1957 is analyzed according to three morphological components as: urban fabric, urban circulation network and land use pattern. In addition, the change of urban fabric between late 1920s and 1957 are examined and put forward.



Figure 3.3: Atatürk Avenue in the 1940s (Bursa City Museum Archive)

3.1.3.1. Urban fabric in 1957

The 1957-dated map was superposed with the aerial photograph of 1960 in Appendix 2. When we examine the urban fabric in the 1957 map (Figure 3.4), it is seen that there are no major changes in the Khans District. The square at the south of Ulu Mosque continues to exist as a public open space (1). It is seen that the cinema located at the south of Ulu Mosque was closed, Halk Bank and gas stations were added next to Ottoman Bank in the same area. The area next to the banks, estimated to be the Municipal Garden, has no information mentioned on the late 1920s map.

The most important change seen in this map is the addition of the Government Square and the Atatürk Monument, today called as ‘Heykel’ (2).

In the period from the 1920s to the 1950s, both the traces of the First National Architecture Movement and the examples of modern architecture can be seen in the study area. While the Government House, Courthouse, Finance, Post Office, and CHP Party building represent the First National Architecture Movement, Ziraat Bank, Derman Apartment, the apartment next to the Post Office and the Community Center can be shown as the first examples of modern architecture. In addition, after the 1950s, bank buildings and office buildings, which developed depending on economic policies, were built rather than public buildings reflecting the nation-state ideology (Figure 3.5).



Figure 3.4: Urban fabric of the Khans District in Bursa in 1957 (Redrawn by the author after 1957-dated Map).



Figure 3.5: Multi-storey commercial buildings that began to appear on Setbaşı-Atatürk Avenue in the 1940s (Bursa City Museum Archive)

Change of urban fabric in the Khans District from late 1920s to 1957:

According to the data obtained from superposition of the late 1920s map and the 1957-dated map (Figure 3.6), the changes found in the urban fabric are as follows:

In the 1957-dated map, the building density in the Khans District did not increase significantly compared to late 1920s. The building blocks to the west of Ulu Mosque were the same in number on the 1957-dated map. In this less detailed map, the inner courtyards of the building blocks are not specified.

The most important change in the 1957-dated map, the buildings in the south of Atatürk Avenue come together and forming larger building blocks (1). Likewise, the spaces between building blocks in the commercial and residential fabric located to the north of Cumhuriyet Avenue decreased (2).

The rows of buildings to the west of the Ulu Mosque and Piriç Khan were demolished because of road widening works (3,4). It is known that buildings with larger footprints using latest building materials and techniques were built in their place.

Sarı Abdullah Street located between Ünlü Street in the east of Cumhuriyet Area and Atatürk Avenue in the direction of Setbaşı, was cancelled and turned into a void within the building blocks (5).

In line with the decision to expand the roads with the 1940-dated Bursa Master Plan by Prost; during Haşim İşcan's governorship, the section of Atatürk Avenue between Ulu Mosque and Çakır Hamam was expanded (6). On the 1957-dated map, due to these plan decisions, the buildings located in the southwest of Atatürk Avenue were expropriated and the avenue was widened.

3.1.3.2. Urban circulation network in 1957

When looked at Urban Circulation Network in 1957 (Figure 3.7), it is seen that during the five years that Haşim İşcan served (1945-1950), the construction work in Bursa accelerated. In order to keep up with the motor vehicle traffic, the Cemal Nadir Avenue (1), the part of Atatürk Avenue between Ulu Mosque and Çakır Hamam (2), and the road between İş Bank (3) were enlarged and the main streets were paved (Figures 3.8, 3.9).

As motor vehicles began to enter the country in the 1940s, commercial taxis began to replace horse-drawn carriages as a means of transportation. These vehicles were operating mainly between the Cumhuriyet Square (Heykel), Ulu Mosque, Orhan Mosque, in front of the Ottoman Bank, Çekirge Square and Samanpazarı. Over time, as the telephone became widespread, taxi offices were formed. One of the first public transportation main lines started from Yeşil Neighborhood, first to Çelik Palas and later to Çekirge, and the other one started from Yıldırım and extended to Çekirge. Over time, private buses with a capacity of 16 people began to appear to meet the needs of civil servants and students. In order to meet the increasing transportation needs over time, new laws were enacted, and Bursa Municipality Bus Operations Branch Directorate was established under the Municipality in 1945 (Yetişen, 2018).

3.1.3.3. Land use pattern in 1957

The process of change, which started with the construction of administrative and cultural buildings with westernization in the 19th century, continued in this period as well (Figure 3.10).

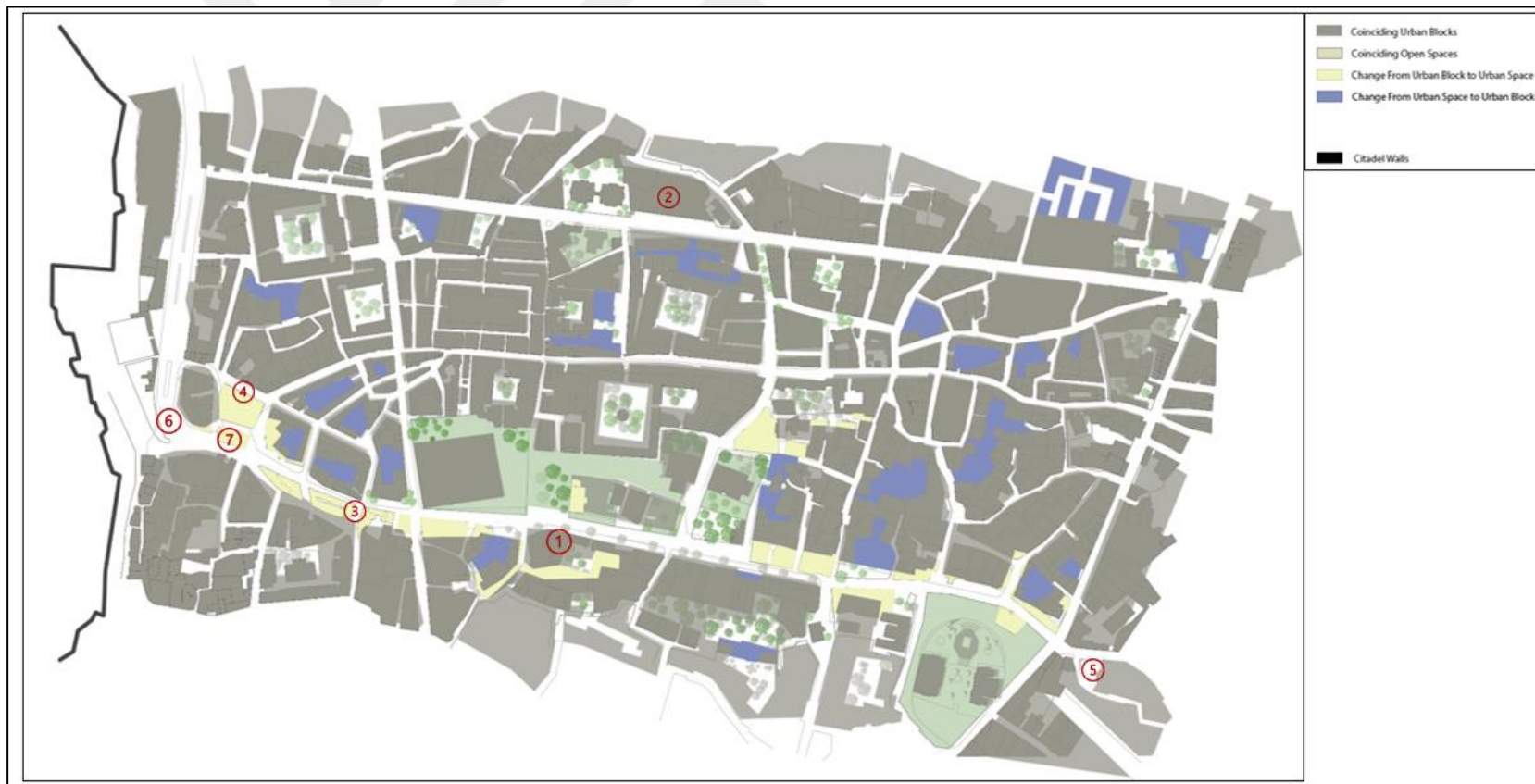


Figure 3.6. Change of urban fabric in the Khans District from late 1920s to 1957 (through the superposition of 1909 and late 1920s maps by the author)

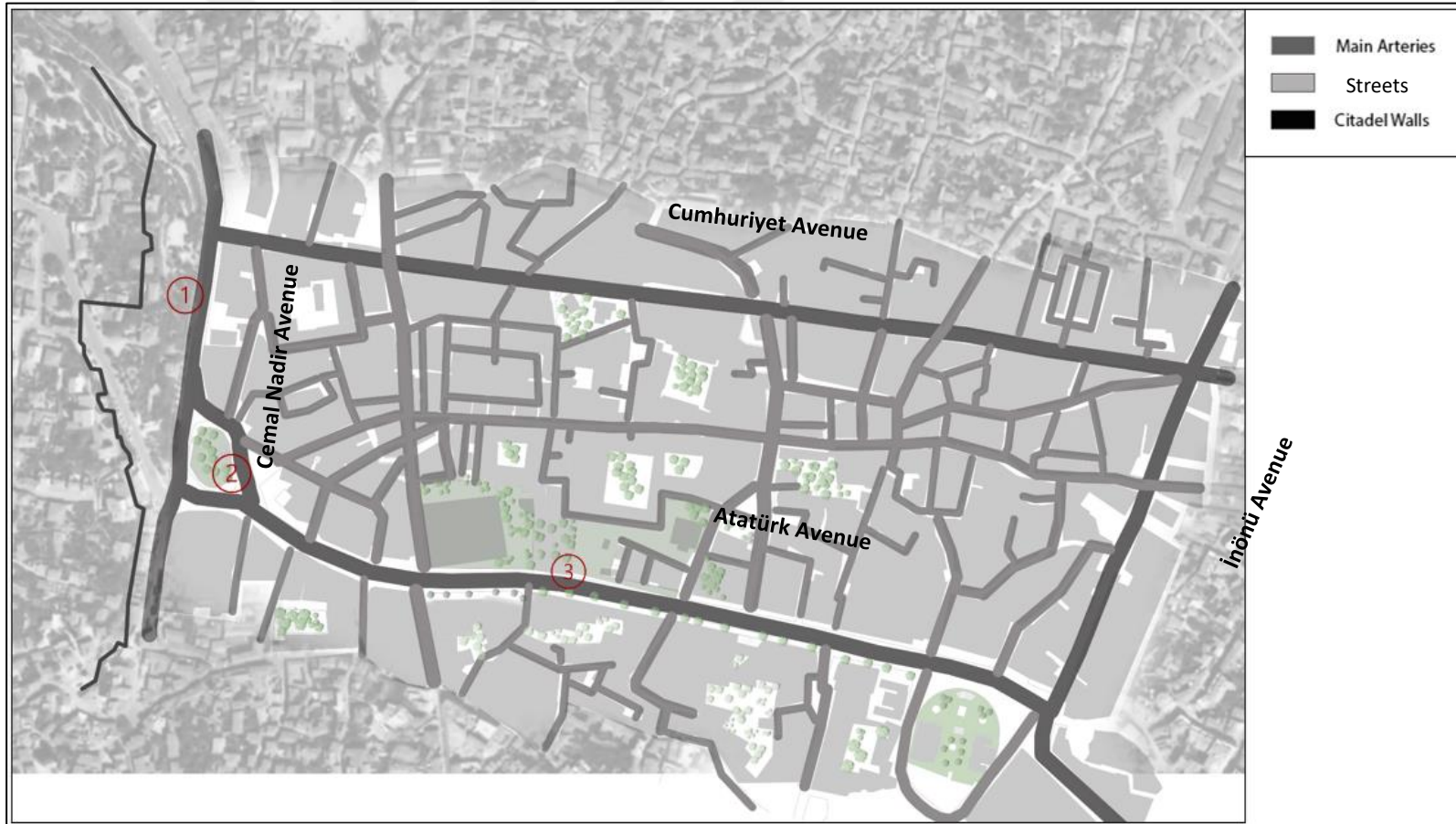


Figure 3.7: Urban circulation network of the Khans District in Bursa in 1957 (Redrawn by the author after 1957-dated Map).



Figure 3.8: A view of Atatürk Avenue and Ulu Mosque in 1950 (Url-15)

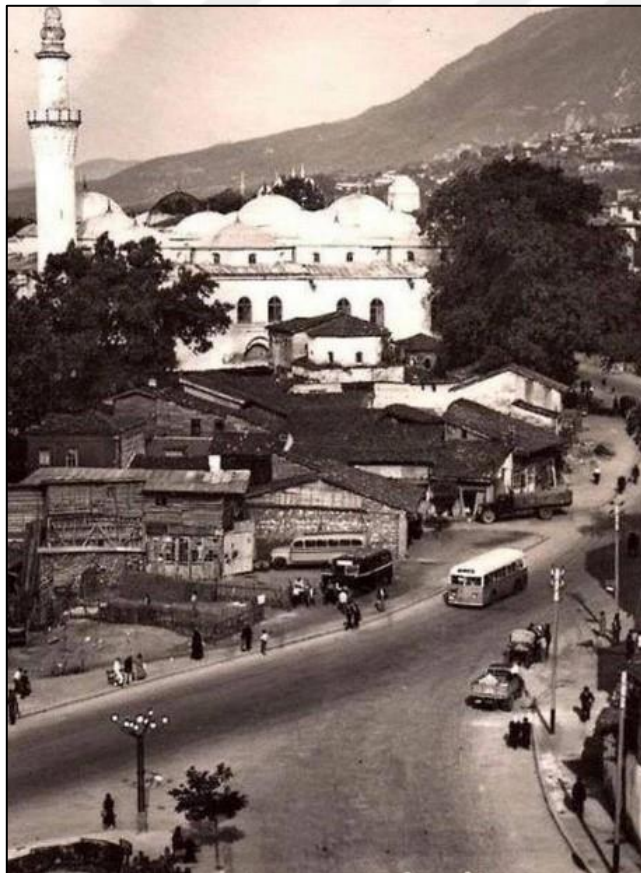


Figure 3.9: A view from entrance of Atatürk Avenue and Ulu Mosque in 1950s (Url-16)

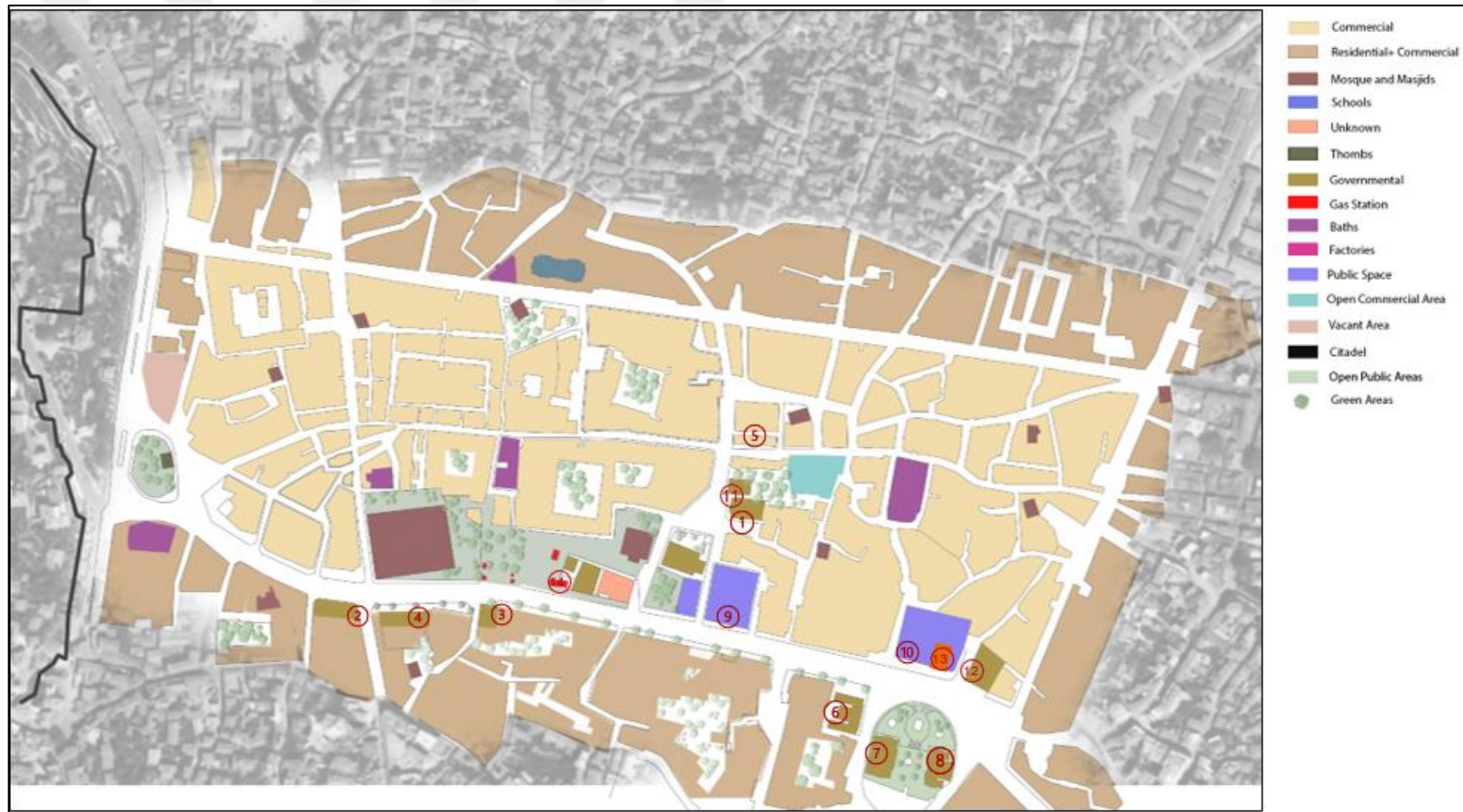


Figure 3.10: Land use of the Khans District in Bursa in 1957 (Redrawn by the author after 1957-dated Map).

Commercial Buildings

Yapı Kredi Bank:

Yapı Kredi Bank (1), designed by Emin Onat, was opened in 1948, opposite the historic Bursa Municipality Building. The Second National Architectural Movement¹⁵ approach was adopted in its design (Dostoğlu, 2006, p.40).

Bursa Yapı Kredi Bank building is a building where traditional architectural elements are used by modernizing them (Kaprol, 2002, p.181). The building is a modern interpretation of the traditional Turkish House with its wide eaves, rectangular windows, and unique façade (Figures 3.11, 3.12). Contrary to the general approaches of the period, which tried to adapt to its historic environment with heavy stone coatings, Yapı Kredi Bank is a light, simple and rational building with its plan solution (Yılmaz, 2002, p.23).

The ground floor of the building, which was made of reinforced concrete, was reserved for customer services, and was designed with a free space approach. On the mezzanine floor, the bank's administrative units and rest room, on the basement floor there is a vault, warehouse functions are included. Stairs continuing on all floors provide accessibility between floors. Onat combined function and aesthetics in his design, adhering clarity in plan setup and human scale in size and proportions of the building (Figure 3.13) (Yılmaz, 2002, p.23).

Emlak Bank Building:

The building, previously known as Emlak Bank and used by Ziraat Bank today (2), was built on Atatürk Avenue in 1948. It is not known who the architect was. The building consists of a basement and 3 floors above. It was built as concrete and completely covered with stone (Dostoğlu, 2006, p.40). The building is designed symmetrically.

¹⁵ In the architectural environment of Turkey, in the 1940-1950 period, values such as suitability for the climate and local architecture, and the use of local materials and workmanship were given importance. In this period, the architectural approach that takes the traditional Turkish house as a model and reference is known as the second National Architecture Movement. (Bursa Municipality, p.282)

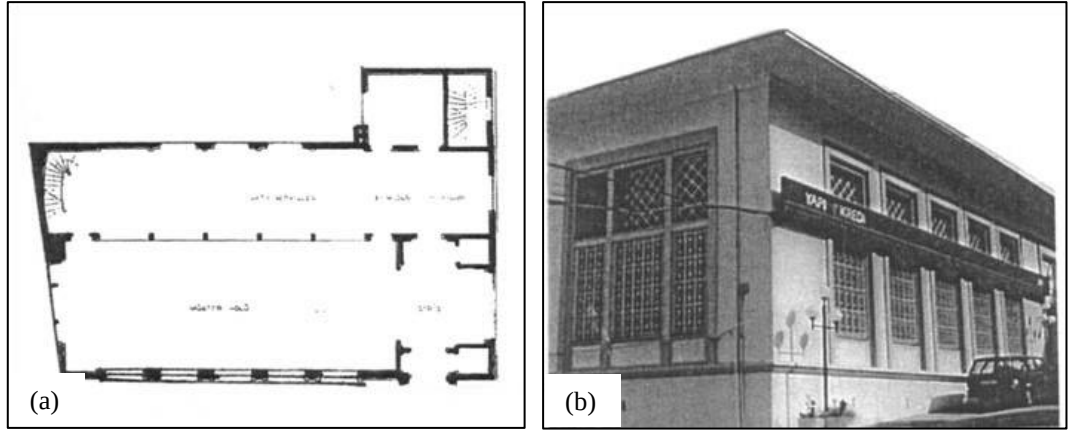


Figure 3.11: (a) Yapı Kredi Bank building plan (Onat, 1948)

Figure 3.12: (b) Yapı Kredi Bank building (Kaprol, 1996)



Figure 3.13: Yapı Kredi Bank building in 2020 (Bayram, 2020)

The entrance façade is quite wide, while the other façades facing the side roads are narrow.

There are also entrances to the building from these façades. The entrance is drawn in on the ground floor and brought into a defined state through the balcony located on the first floor. A single window ratio was used on all façades of the building. A difference was created in the window sizes on both sides of the entrance, and no overhangs were made on the façades (Figure 3.14). The building is stone coated to adapt to the historic environment. Although it has a heavy appearance, it is seen that it has a simple and regular design approach (Yılmaz, 2002, p.24).

The window protrusion, horizontal lines, and open overhangs on the façade of the Emlak Bank building became the representatives of the Bauhaus and International style in the city (Figures 3.15, 3.16) (Kaprol, 2002, p.182).

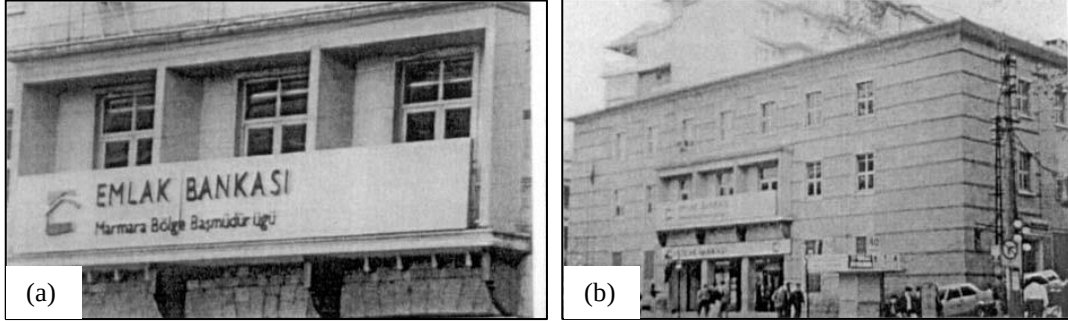


Figure 3.14: (a) Emlak Bank building in the 1950s (Kaprol, 2002)

Figure 3.15: (b) Emlak Bank building in the 1950s (Kaprol, 2002)



Figure 3.16: Emlak Bank Building in 2020 (Bayram, 2020)

İş Bank building:

The building, located across the Ulu Mosque on Atatürk Avenue (3), was built in 1950 during the rule of Governor Haşim İşcan. Its architect is Arif Hikmet Holtay. The stone cladding and roof finish used on the façade can be given as an example of the Neoclassical approach in architecture (Figure 3.17). The movement created by the arches on the upper floor on the front of the building and the open projections on the side façade are reflections of this approach.

The portico, created by retracting the ground floor of the İş Bank building, provides climatic comfort on the south sidewalk of Atatürk Avenue, similar to the other buildings adjacent to it (Figures 3.18, 3.19) (Bursa Metropolitan Municipality, 2011, p.277).

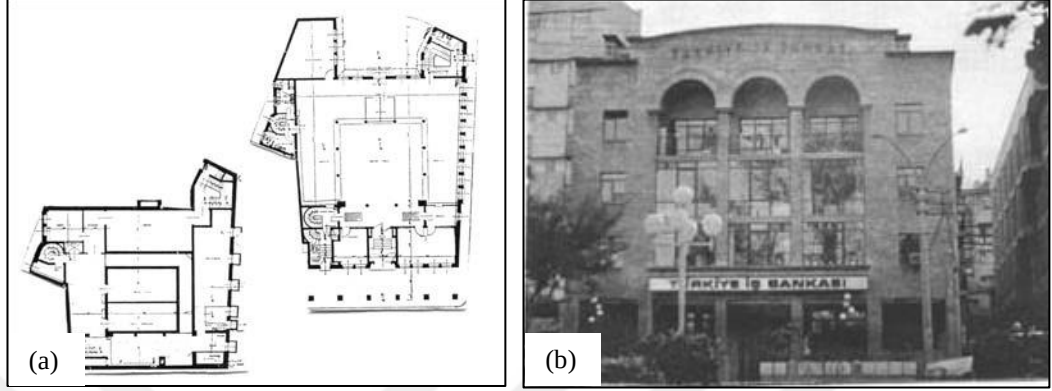


Figure 3.17: (a) Türkiye İş Bank building floor plans (Holtay, 1950)

Figure 3.18: (b) Front façade of Türkiye İş Bank building (Kaprol, 1996)



Figure 3.19: Türkiye İş Bank building in 2020 (Bayram, 2020)

PTT building:

The building, located on Atatürk Avenue opposite the Ulu Mosque (4), was built in the 1950s. The building has three floors and a flat roof. The ground floor was pulled back and a portico was created on the street that contributes to the climatic comfort (Figure 3.20). It is a simple building where the principles of Modern Architecture are applied. It is not known who the architect was (Bursa Metropolitan Municipality, 2011, p. 280).



Figure 3.20: PTT building in 2020 (Bayram, 2020)

Marketplace (Traditional Market) building:

The marketplace building (5) in Tuz Bazaar, designed by M. H. Demir and F. Akozan and built in 1950, consists of two parts, the bazaar and shop's part, and the main market and shops. The architects of the building were inspired by the city's domes and vaults, considering the architectural character of the city. The upper cover of the arcade part is designed as a cross vault reinforced concrete plate (Figure 3.21). The marketplace building adds an important function to Bursa in terms of urbanism (Oğuz, 1999, p.183).

The parts that constitute the building are as follows;

In the covered hall of approximately 500 sq.m. in the main bazaar section where sales used to be made, shops and entrances; there were offices on the first floor, warehouses for each shop in the basement, general storage, public toilets and cold storages. The Bazaar was built on the other side of the building and contains shops and public toilets on the ground floor and offices on the upper floor. In the basement of this section,

there is a heating room and a coal burner (Figure 3.22, 3.23). The main covered bazaar part of the building was built with a reinforced concrete skeleton, with bricks in between. Other parts are made as reinforced concrete floor slabs supported by masonry brick walls (Arkitekt magazine, 1950, p.147-152).

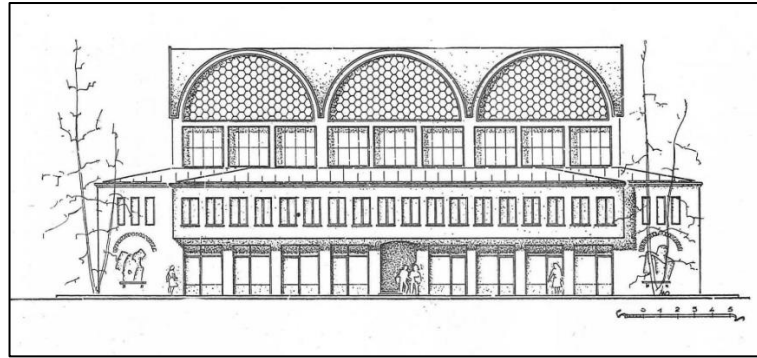


Figure 3.21: Front view of Marketplace Building (Femir & Akozan, 1950)



Figure 3.22: A view of Marketplace Building (Femir & Akozan, 1950)



Figure 3.23: Aerial view of Marketplace Building today (Okumuş, 2021)

Heykel Ziraat Bank:

In 1936, the Ziraat Bank building (12) was built on Atatürk Avenue, opposite the Republic Square. Although the architect of the building is unknown, its front façade is symmetrical, there is a two-storey high protrusion above the entrance, and there are flagpoles on both sides of this protrusion. The building has a flat roof. There are circular windows on both sides of the entrance on the ground floor and on the façade facing Feraizci Street. With these features, the building can be shown as an example of modern architecture (Figures 3.24, 3.25, 3.26).

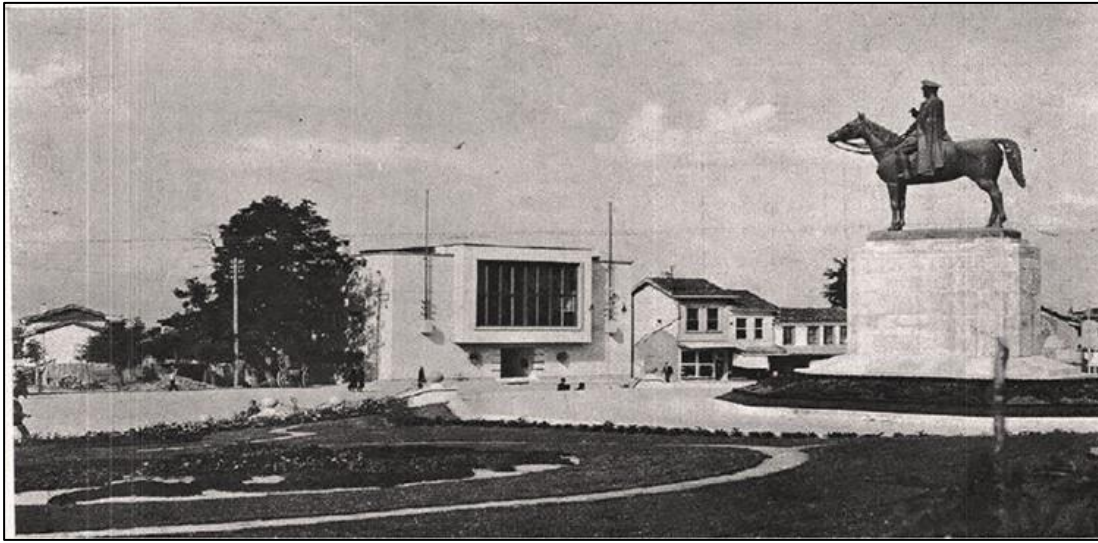


Figure 3.24. A view of Atatürk Monument and Ziraat Bank in 1936 (Url-17)

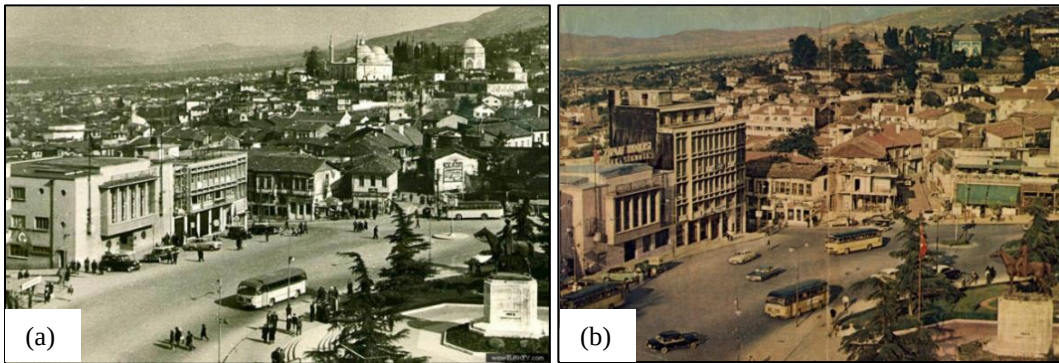


Figure 3.25: (a) Ziraat Bank, İpekçihan, wooden buildings and Sönmez Business Center in the 1950s (Bursa City Museum Archive)

Figure 3.26: (b) Ziraat Bank extended to six floors in the 1970s (Bursa City Museum Archive)

Administrative buildings in the Khans District

During this period, administrative and cultural buildings were built as well as commercial buildings. In the Republican Period, administrative buildings consisting of the Government House, Revenue Office and Courthouse, and cultural buildings consisting of the Tayyare Cultural Center, Community Center and Ahmet Vefik Pasha Theater were built. With these buildings, Khans District has become a commercial and cultural center, bordered by İnönü Avenue in the east, Cumhuriyet Avenue in the north, Fevzi Çakmak Avenue in the west and Atatürk Avenue in the south (Bursa Defteri, 2000, p.20).

Government House:

The Government House (6), designed and built by Ekrem Hakkı Ayverdi in 1925 as a triple building complex framing a square where the Atatürk Monument was later placed, is the closest building to Atatürk Avenue between the Courthouse and Revenue Office buildings. It was built in 1925 in the Republican Area in Bursa and is a building of the First National Architecture Period, started to be used in 1928 (Bursa Encyclopedia, 2002, p.1690). It is known that its architect was Kemalettin Bey. With an entrance on the middle axis of the main façade, the building was built symmetrically highlighted with wide eaves together with the use of arched and rectangular windows in combination (Figure 3.27). The Government House, which is decorated with tiles on the arched windows on the first floor, was restored as the Governor's Office in 1998 (Dostoğlu, 2006, p.35-41). The building preserved its original E-shaped plan scheme until 1957 and lost its originality with the restorations and additions made in the following years (Figures 3.28, 3.29).



Figure 3.27: The front view from the Government House (Mutman, 2002)

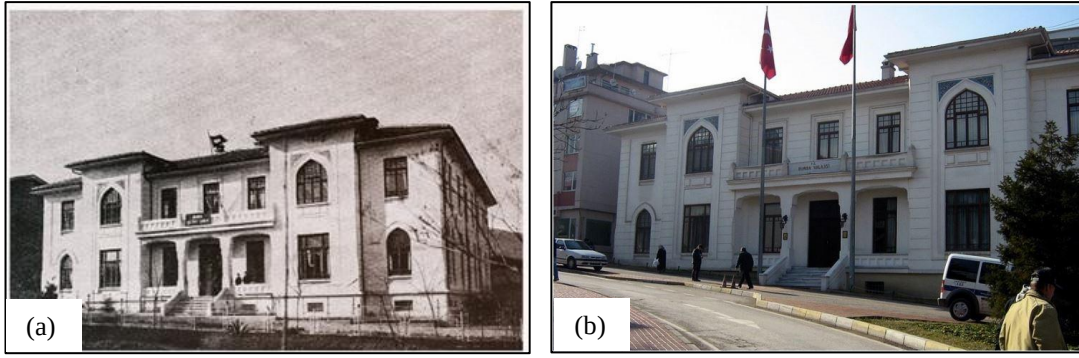


Figure 3.28: (a) The Government House in 1926 (Bursa Research Center)

Figure 3.29: (b) The Government House in 2020 (Url-18)

Revenue Office and Courthouse:

Other buildings surrounding the Republic Square are the Courthouse (7) and the Revenue Office (8). These buildings, which are thought to have been built by E.H. Ayverdi in 1926, show the characteristics of the National Architecture Period (Durak, 2002, p.14)

It is thought that the architect of the buildings was Kemalettin Bey since they were built in the same year as the Government House (1926) and have similar physical characteristics (Figures 3.30, 3.31). With entrances on their middle axis, the buildings, were built on three floors (one of which was the basement floor), with highlighted wide eaves in symmetrical order, together with arched and rectangular windows in a mixed manner (Bursa Encyclopedia, p.456; Dostoğlu, 2006, p.35-41). In the basement of the Revenue Office building, there used to be warehouses and boiler room, on the ground floor there was the accounting and national real estate service, on the upper floor there was the revenue directorate, personal service, head of the financial department, and assistants (Durak, 2002, p.14)

As the courthouse could not meet the demands in time, it was moved to the new building after the implementation of the new Courthouse project, which was selected in the architectural project competition opened in 1986 and was completed in 1999. The old Courthouse was also allocated to the Bursa Metropolitan Municipality and has been used as a City Museum since 2004 (Dostoğlu, 2004, p.14-16) (Figure 3.31).



Figure 3.30: Revenue Office and former Courthouse in 1926 (Url-19)



Figure 3.31: Revenue Office and former Courthouse in 1940 (Url-20)



Figure 3.32: Revenue Office in 2020 (Url-21)

Municipal Health Directorate Building:

It is a reinforced concrete building in Tuzpazarı, which has all the features of the governmental buildings carrying Early Republican Period effects in terms of plan features and façade characteristics (Figure 3.33).

The building has wide eaves and rectangular windows with small partitions. A wide projection was applied on the entrance façade and the ground floor was set back and the entrance was emphasized with two columns (Bursa Metropolitan Municipality, 2011, p.268).



Figure 3.33: Municipal Health Directorate Building which is currently used as the Police Department (Yandex Map)

Social and cultural buildings

Tayyare Cultural Center:

It was designed by Arif Hikmet Koyunoğlu, who won the first prize in an architectural project competition organized by the Turkish Aeronautical Association in 1930 for a concert and theater hall in Bursa. The building construction (9), which was completed in 1932, served as a theater and a concert hall for a while (Figures 3.34, 3.35). It was purchased by the Bursa Municipality in 1945 and started to be used as the Tayyare Cinema. In 1961-1962, two floors were added to the part of the building facing Atatürk Avenue and some units of the Municipality were moved to these floors. It was restored in 1991-1992 by the decision of the Municipality to become a cultural center

containing various concert and meeting halls. In this process, the floors added later were removed (Bursa Encyclopedia,2002, 1590-1591) (Figures 3.36, 3.37).

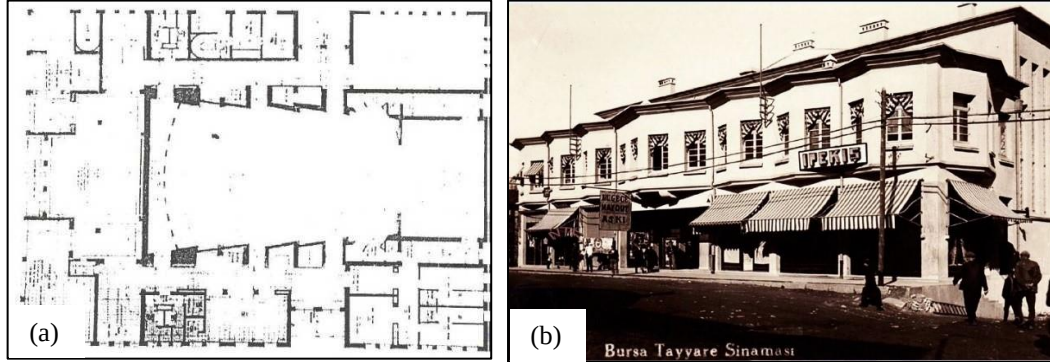


Figure 3.34: (a) Tayyare Cultural Center's ground floor plan (TMMOB Mimarlık Dergisi)

Figure 3.35: (b) Tayyare Cultural Center in the 1940s (Url-22)

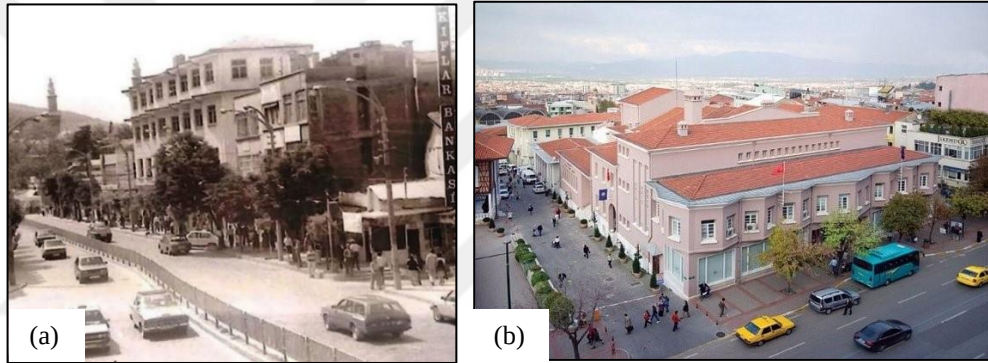


Figure 3.36: (a) View of the Tayyare Cultural Center, with two floors added, in the 1980s (Bursa City Museum Archive)

Figure 3.37: (b) Tayyare Cultural Center in 2018 (Url-23)

Community House (Ahmet Vefik Pasha Theater):

Community Houses had an important place in the city by modernizing the society and preparing the environment for the cultural transformation required by the age during the founding years of the Turkish Republic¹⁶ (Akkılıç, 2001, p.39).

¹⁶ The community centers, which were aimed to be established in every city and town and were built between 1931 and 1951 in line with this goal, were one of the priorities of the successful architects of the period. The planning of cities according to a modern perspective was among the leading urbanism approaches throughout the country, which is being rebuilt economically, socially, and culturally. The basis of the understanding was that there must be a "Gazi Boulevard" or "Atatürk Avenue" in every city, that these meeting places form the main axis of the city, and that this axis is connected with "Cumhuriyet Square". According to the development decisions taken, the Community Center Building was located

An architectural project competition was held for a community center building in Bursa in 1938, due to the 6th founding year of the Community Centers, five projects participated in the competition and the project prepared by Münevver Belen, one of the first female architects of Turkey, was selected for implementation (Bursa Encyclopedia, 2002, p.826-830) According to Belen's original design, there were training spaces, meeting areas, a large hall where shows or games could take place on the ground floor, and administrative units and meeting rooms on the first floor. On the second floor, the balcony of the hall, the meeting room and the necessary spaces for management were located. In addition, common areas were arranged on each floor (Köprülü-Bağbancı, 2007, p.95).

Bursa Community Center (10) has started its work in this new and modern building since July 1940 (Kaan, 2001, p.43). However, with the closure of all the community centers in Turkey in 1951, the building, which was named the 2nd Government House, continued its function first as a cinema and as a theater since 1957 (Figure 3.38).

Over time, the building has undergone significant changes, the terrace roof has been replaced with a tiled hipped roof, and various additions have been made to the building (Dostoglu, 2004, p.35-41)

Ahmet Vefik Pasha Theater:

In 1950-1951, Dr. Akyürek had the Ahmet Vefik Pasha Theater built as an extension of the Community Center (Figure 3.39).

The upper floor of the theater was used as the Marmara Cinema and the lower floor as the Tan Cinema. In 1957, the movie theater was turned into a theater. The building was transferred to the State Theaters in the same year and opened on 28 September 1957 (Özkula, 2002, p.110).

Another building that can be identified from period photographs on Atatürk Avenue is the *Cumhuriyet Halk Partisi* building, constructed in 1928, in the north of the Cumhuriyet Square (Figure 3.40).

on these main streets or in the square together with the primary school, the Municipality Building and the Government House (Url-55).

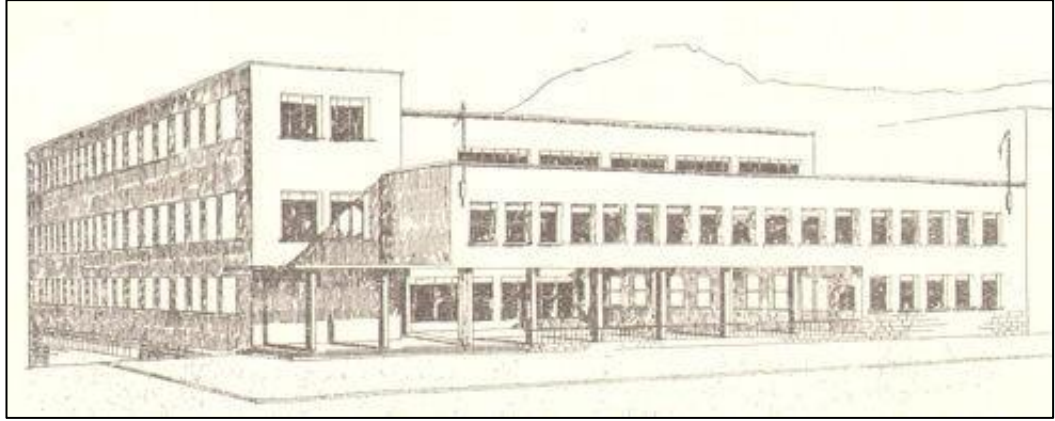


Figure 3.38: Bursa Community Center architectural project competition 1st prize, Münevver Belen 1938 (Url-24)



Figure 3.39: Ahmed Vefik Pasha Theater, transformed from community center in the Early Republican Period (Bursa City Museum Archive)

The architect of this building, which carries the characteristics of the First National Architectural Period, is unknown. There is an Ottoman portico at the entrance, and there is an oratory balcony above this entrance. The building was constructed with two floors above the basement. The façade is asymmetrical, unlike the surrounding buildings (Polat, 2011, p.181).



Figure 3.40: CHP Board of Directors building, 1930s (Bursa City Museum Archive)

During the construction of the Community Center, Alaca Masjid and CHP building (Figure 3.41) from the Early Republican Period were demolished.



Figure 3.41: Alaca Masjid and CHP building in 1937 (Url-25)

Another building identified in period photographs is Derman Apartment (13), one of the first apartment buildings in Bursa. It was built in 1934 in a modern architectural style next to the CHP building. There are closed balconies at the corner of the building, which has a flat roof and three full floors and an attic. It is known that it was designed

by the Germans (Polat, 2011, p.182) (Figure 3.42).



Figure 3.42: Ahmet Vefik Pasha Theater and Derman Apartment in 1957 (Bursa City Museum Archive)

Atatürk Monument and Cumhuriyet Square

Public open spaces in the Ottoman Empire did not include squares. However, it is seen that the first activities carried out in cities with the foundation of the Turkish Republic were to create public squares. As a result of this approach, Cumhuriyet Square was built in Bursa (Aslanoğlu, 1998, p.196).

Cumhuriyet Square is important as it was created with the Western ideology, where governmental buildings were located. Atatürk Monument, located in the middle of the area, was started to be sculpted by Nijat Sirel in 1925, completed and opened to public viewing on October 29, 1931 (Figure 3.43).

Although many new urban areas have been added to the city until today, Cumhuriyet Square has become the modern center of the city (Kaplanoğlu, 2003, p.37) (Figure 3.44).

Another urban element that can be read on the 1957 map is the gas stations (14) located on the south side of Ulu Mosque (Figure 3.45). It is understood from the period photographs that they continued to exist for a while.



Figure 3.43: Atatürk Monument and Cumhuriyet Square in the 1930s (Url-26)



Figure 3.44: Cumhuriyet Square and Ahmed Vefik Pasha Theater in the 1940s (Url-27)

Change of Land Use in the Khans District from late 1920s to 1957:

When two maps are superposed, it is seen that mosques, masjids, and historic baths seen on the late 1920s map in the Khans District continued to exist in 1957 (Figure 3.46).



Figure 3.45: Gas stations in the area south of the Ulu Mosque in 1958 (Url-28)

A new building can be seen in the garden where the Municipality building was located. On the 1957-dated map, it was stated that this building was the Mountaineering Club (1).

The buildings on the parcel to the east of the Mountaineering Club were demolished and the Tayyare Cinema was built in their place (2). Additionally, the buildings on this parcel were expropriated as a result of road construction works.

The building shown as Alaca Masjid in late 1920s and the surrounding buildings were replaced by Bursa Community Center building and Derman Apartment (3).

The area, which was stated as an open marketplace on the late 1920s map, was seen as a market building in 1957 (4).

The building, stated as Tuz Khan on the late 1920s map, was shown as a vegetable market in 1957 (5).

Another point that draws attention in the 1957-dated map is that the Timurtaş Pasha Tomb, located at the entrance of Atatürk Avenue, to the north of Çakır Hamam, was not shown on the previous maps, but is shown on this map (6).



Figure 3.46: Change of land use in the Khans District from late 1920s to 1957 (through the superposition of late 1920s and 1957-dated maps by the author).

During the expansion of Atatürk Avenue, the buildings to the south of the Ulu Mosque were expropriated, and on the 1957-dated map, it was determined that the PTT building (7) and İş Bank building (8) were built in their current location.

The Post Office and Prison building (9) shown in the Government Area on the late 1920s map were evacuated, and Sarı Kadı Abdullah Mosque (10) located to the east of this area was demolished during new road construction works (Figure 3.47).

Buildings were constructed in the vacant area to the west of the *Bakırcılar Bazaar* (11). The small buildings opposite Cumhuriyet Square were demolished and today's Ziraat Bank was built in their place (12).

A gas station was built next to the Ottoman Bank, located to the south of the Ulu Mosque (13).



Figure 3.47: Sarı Kadı Abdullah Mosque was demolished in 1939. (Url-29)

4. EVOLUTION OF BURSA HISTORIC CITY CENTER IN THE REPUBLICAN PERIOD (1957-2018)

4.1. Bursa from 1957 to 1980s

In this section, the social, cultural, historic, and economic developments that affected Bursa Historic City Center and the Khans District between 1957 and 1980s are examined and put forward.

4.1.1. Socio-economic structure of the city

- **1958 Grand Bazaar fire**

On August 24, 1958, in a fire that broke out in a bookstore in the east of the Grand Bazaar and north of the Ulu Mosque, as a result of the gas stove used for bookbinding overturned, many workplaces were burned down together with the goods inside, resulting in great financial loss (Budakoğlu, 2003, p.94). Due to the fire, the city was severely damaged, the historic center of the city was destroyed, and many historic buildings in and around the Khans District, which used to be the business and commercial area at that time, were destroyed (Figures 4.1, 4.2). The remaining civil architectural buildings around it became unusable. In the fire, Sahaflar Bazaar, Aynalı Bazaar, Jewelers' Bazaar, Gelincik Bazaar, Köföncüler Bazaar, Coppersmiths' Bazaar, Emir Khan, Fidan Khan, Yorgancılar, Arakiyeciler, Bedesten, Saraçhane, Şekercilerbaşı, located in the Grand Bazaar area, and Çırapazarı, Taşçılar, Koza Union, Mufti's Office building, Doruk Tobacco Warehouse, Union of Associations, Ziraat Bank, İpekli Industry Consumption Cooperative, Pirinç Khan Mosque, Tavuk Pazarı Mosque, Foundations Directorate building, Fire Brigade Building, Hakimiyet Newspaper Building and a hotel were completely burned (Figures 4.3, 4.4).

The shopkeepers of the bazaar shared their shops with the owners of the burned shops and enabled the shopkeepers to continue their commercial activities. The cleaning works, which started with the cleaning of the traces of the fire, continued with the laboratory examinations of the stone and brick materials.

After the fire, after static and material analyses static reinforcements were made at the points deemed necessary. Concrete surfaces added later have been removed to reduce the weight of the building. Especially in the roof part, old insulation concretes were removed, and insulation applications were made that did not increase the weight of the building.

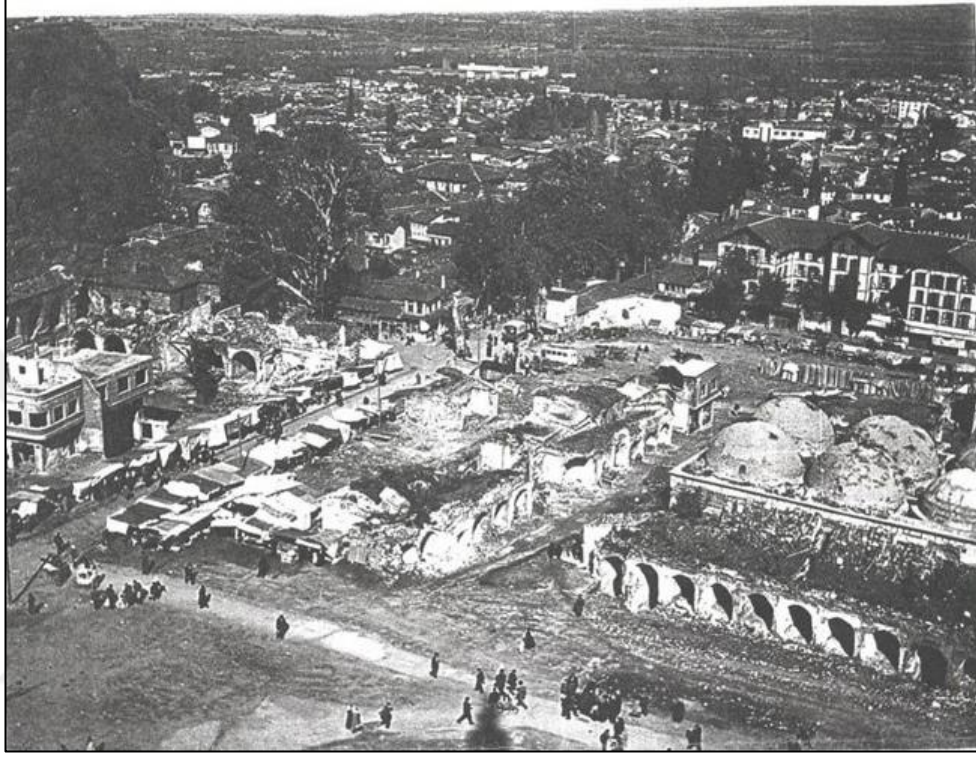


Figure 4.1: İpek Khan and Bedesten after the fire (Bursa Cultural and Natural Heritage Preservation Board Archive)



Figure 4.2: Khans District after 1958 fire (Url-30)

The eaves were renewed and all surfaces forming the roof were covered with lead. The

plasters damaged by the fire on the interior walls and the stones on the front surface were renewed. The shop walls, whose stones were removed one by one, were replaced with Ottoman bricks, and cut stones, and the shop arches were rebuilt with Ottoman bricks. Thus, the walls rising with alternating masonry on the outer surface were connected to each other with brick arches. The interiors of the shops were covered with Ottoman floor bricks, and the walkways were covered with natural travertine stone. In particular, the stencil decorations that existed in the *Sipahi Bazaar* before the fire were reproduced. As a final stage, the interior of *Kazazhane Passage* was covered with a coating compatible with its historic character, and the walls forming the entrance doors of the bazaars were rebuilt (Bursa'da Zaman, 2014, p.63).

The Grand Bazaar was rebuilt with the addition of the lower bazaar under the consultancy of Emin Canpolat. The Upper Bazaar was designed as two-storied shops. The bazaar is clad with a wood-covered iron construction roof. Bedesten area, Ulu Mosque Madrasah and Kapan Khan area; designed as an arched, concrete carcass with exterior surfaces lined with bricks and covered with limestone. The khans were restored to their original architecture. Most of the Grand Bazaar shopkeepers who moved to temporary shops returned after the restoration activities of the bazaar. There has been a change in the trading activities of the shops in the Grand Bazaar, which started reoperating after the completion of the restoration activities; In the lower part of the Khans District, which served to accommodation and as cocoon market, there were shops where wholesale and retail trade was carried out, and on the upper floors there were wholesale offices, offices of accountants and insurance companies. Jewelry and coppersmith shops for tourists and upper income groups were concentrated in the Grand Bazaar, and shops for different services, including trade, restaurants, hotels and garment shops for lower income groups and rural areas, are concentrated in the Long Bazaar. After the fire, second-hand booksellers, saddlers, coppersmiths, smelters, etc. It has been observed that shops performing traditional functions and small handicraft shops moved to places further away from the Grand Bazaar or that these artisans had to leave their professions over time (Budakoğlu, 2003, p.113).

The increase in the population of the city on the one hand, and the great fire in the city center in 1958 on the other, necessitated the re-planning of the city. A planning office established for this mission prepared a master plan of Bursa under the consultancy of Luigi Piccinato (Dostoğlu & Vural, 2004, p.125).

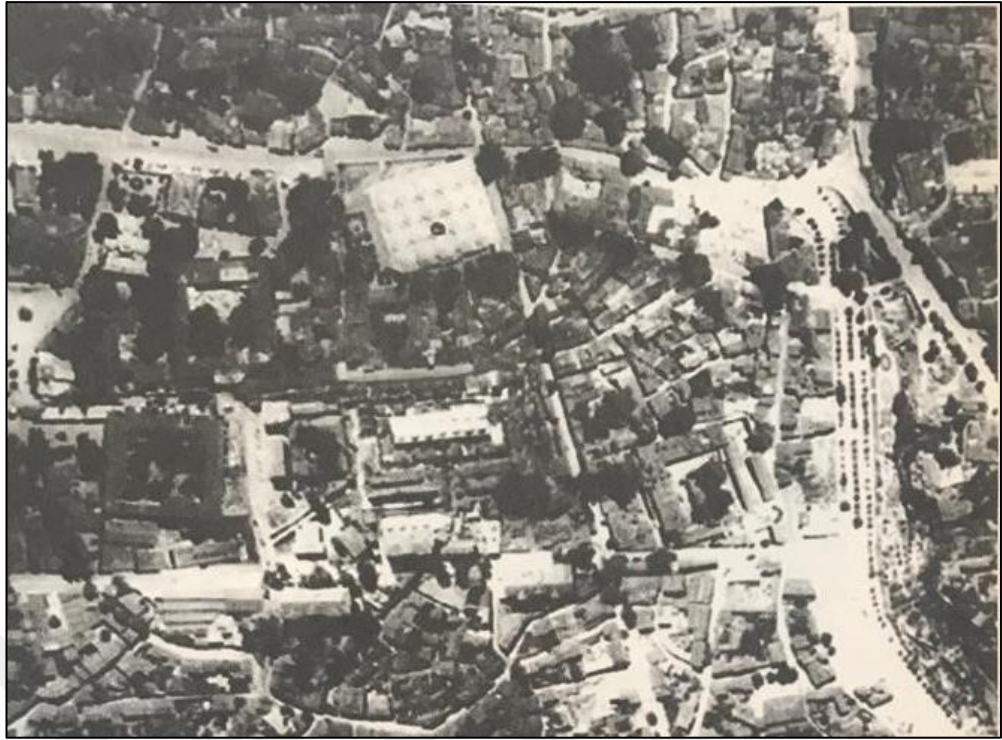


Figure 4.3: 1938- dated aerial photo of the Khans District (Bursa Cultural and Natural Heritage Preservation Board Archive)



Figure 4.4: 1958-dated aerial photo of the Khans District (Bursa Cultural and Natural Heritage Preservation Board Archive)

4.1.1.1 1960-dated Piccinato Plan

In 1960, the Reconstruction Planning Office was opened with the support of İller Bank and Emlak Bank for the re-development of Bursa, and a 1/4000 scale Bursa Master Plan was prepared under the consultancy of Italian Architect Luigi Piccinato and under the chairmanship of Architect Emin Canpolat (Dostoğlu & Vural, 2004, p.125) (Figures 4.5, 4.6).

While planning Bursa, Piccinato focused on the development direction of the city, its historic urban fabric, transportation network and existing buildings. First of all, he envisaged to provide the development of the city in the direction of the east-west axis by creating a linear axis on the Ankara-Bursa-Mudanya Road located in the north of the city. Towards the end of the 14th century, the growth of the city shifted to the east, and the development took place in the direction of the east-west axis (Tekeli, 2011, p.362). However, with the development of industry in the 19th century, the development and urban structure of the city of Bursa was reconstituted and the development of the city began to move towards the northern axis. In the plan he proposed, Piccinato aimed to divert the development of the city from the north axis back to the east-west axis and stated that it was necessary to create the whole city organically in well-defined regions (historic urban fabrics, monuments, urban and rural landscapes) in order to achieve this. It was aimed to protect the service and business areas necessary for the city, to develop these regions, to identify and define all necessary governmental buildings and to establish a useful and functional transportation network that connected all components.

Piccinato thought that traditional urban fabrics should be preserved and maintained, contrary to the destructive policy of modernism. According to Piccinato, Bursa has important traces of the historic development of urbanism. The roads opened by the governors in the 19th century by disrupting the organic pattern of the city led to the formation of a new urban understanding in Bursa. In the 20th century, a destructive planning approach emerged with the adoption of new understanding according to the modernization policies of the Turkish Republic, resulting in the widening of roads in the post-Prost period and the highlighting of the monuments. Nevertheless, Bursa's urban fabric in 1958 preserved the rationality peculiar to traditional architecture. Piccinato also stated that the architectural features that formed the general character of

this city should be preserved and emphasized in the studies to be done about Bursa (Vural, 2008, p.98).

According to Piccinato, four factors should be carefully considered in order to prevent unhealthy urban development in Bursa. These are,

- Efficient use of agricultural lands in the city
- Development of industry
- Development of tourism
- Development of the city's relationship with nearby cities.



Figure 4.5: Khans District in 1960-dated Piccinato Plan, edited by the author (Bursa City Museum Archive)

Based on these main ideas, he divided the city into several zones. The general characteristics of these regions the ways of should be formed and how they should be protected are determined by the development rules. After dividing the city into twenty separate regions in the development plan, he proposed four different functional categories. These are residential areas, commercial zone, industrial zone, and private residential areas (Piccinato, 2004, p.31).

According to Piccinato, the city was like a living organism. He thought the city did not only consist of roads and buildings. In addition, he emphasized the importance of the areas necessary for living in the city, vacant areas not yet built, every building and region, from a single monument to a small house. He said that the new neighborhoods, industrial areas, and country houses that were to be created by considering all this background and contextual structure as the elements keeping the city alive with its scenic areas, existing and newly planned green areas.

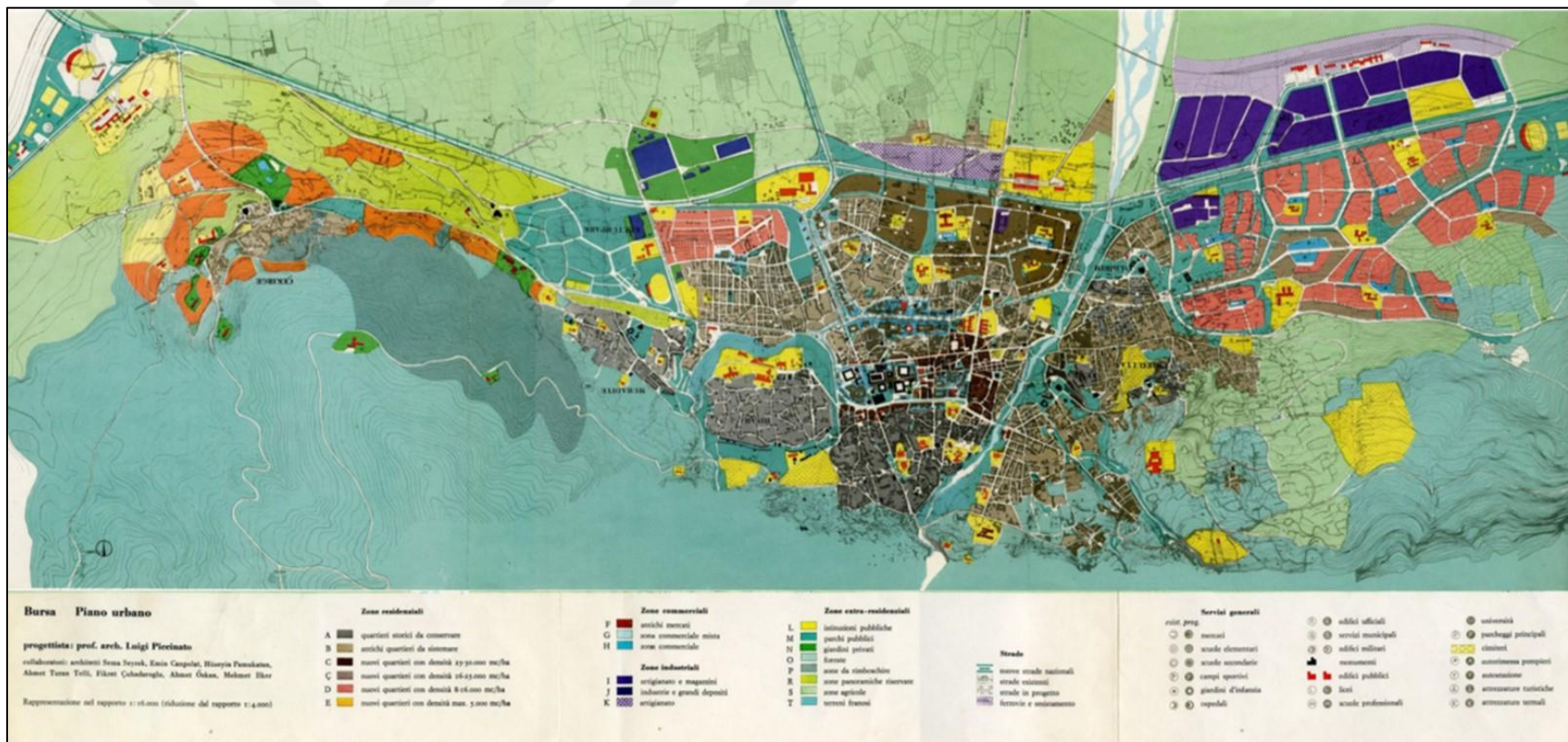


Figure 4.6: Khans District in the 1/4000 scale Bursa Plan prepared by Piccinato in 1960 (Bursa City Museum Archive)

Therefore, when the master plan was considered as an organism, it divided the city into many regions for the needs of the city and included different plan notes for each region to be put into effect by the master plan (Piccinato, 2004, p.32). While carrying out rehabilitation renovation works in the areas where the traditional urban fabric was located, he also specified the features such as height and width of the new buildings to be constructed in order not to harm the existing old urban fabric, and even considered the colors of the new buildings to be in harmony with the existing urban fabric (Dostoğlu & Vural, 2004). Evaluating each region separately, he took decisions according to their current situation. These decisions were the most distinguished feature of the Piccinato Plan when compared to the earlier Prost Plan, which ignored the historical urban fabric of the city except for the historic monumental buildings.

Piccinato protected first built area in the city center in the 19th century, where the buildings such as the provincial buildings, the Municipality Building, and the courthouse were located. Offices and shops associated with the institutions were concentrated around the governmental/public buildings in the city center. Especially the vibrant areas of the center; Cumhuriyet Avenue has established similar service-oriented workplaces on İnönü, Atatürk and Cemal Nadir Avenues and in their inner parts (Tekeli, 2011, p.387). Piccinato, who saw the Khans District as the commercial city center, rehabilitated this area and proposed new commercial buildings compatible with its surroundings and covered bazaar areas using modern buildings. While the center was preserved with its historic qualities, the rapid increase in the population has revealed the need for new living spaces, the formation of new neighborhoods and a new city center. In this case, two administrative regions were proposed in the city. While the existing Atatürk Avenue, included the first hotels, banks, post office building and the town hall, the new trade center was Fomara Avenue, and the administrative center was Haşim İşcan Avenue¹⁷. Stores, shops, hotels, and banks were concentrated in the new trade center, and governmental buildings such as the Courthouse and the Government House would be located on Haşim İşcan Avenue, which was planned to be the administrative center. Thus, the Khans District, defined by Haşim İşcan and Atatürk Avenues, would also be reorganized providing the

¹⁷ Kepezler Khan were destroyed when Haşim İşcan Avenue was constructed (Bağbancı, 2008, p.107).

connection between the two administrative centers (Piccinato, 2004, p.33).

The Piccinato Plan determined the Khans District as the most important project area. With the project prepared for this area, it utilized this region as an urban trade center (Bağbancı, 2008, p.107). The current top cover of the streets defined by the three-storied buildings of the Grand Bazaar, the vaulting of the Coppersmiths' Bazaar (*Bakırcılar Çarşısı*), and the re-functioning of the public baths in the region were Piccinato's suggestions for the region (Vural, 2008, p.100). The shops in the region were renovated by preserving the three-storey high building typology, reconstructions, and reintegrations with reinforced concrete system on the original foundation walls, that were reached through the basement that walls became visible after the fire (Çakıcı, 2015, p.98).

In this plan, Piccinato suggested in to rehabilitate the khans, clean their surroundings, and to construct a covered bazaar by using new and modern commercial buildings and in harmony with the historic urban fabric. Although the project had positive integrity in general, the pedestrian and vehicle circulations were too intertwined with too much reserved space for car parks as negative features of the project (Figure 4.7).

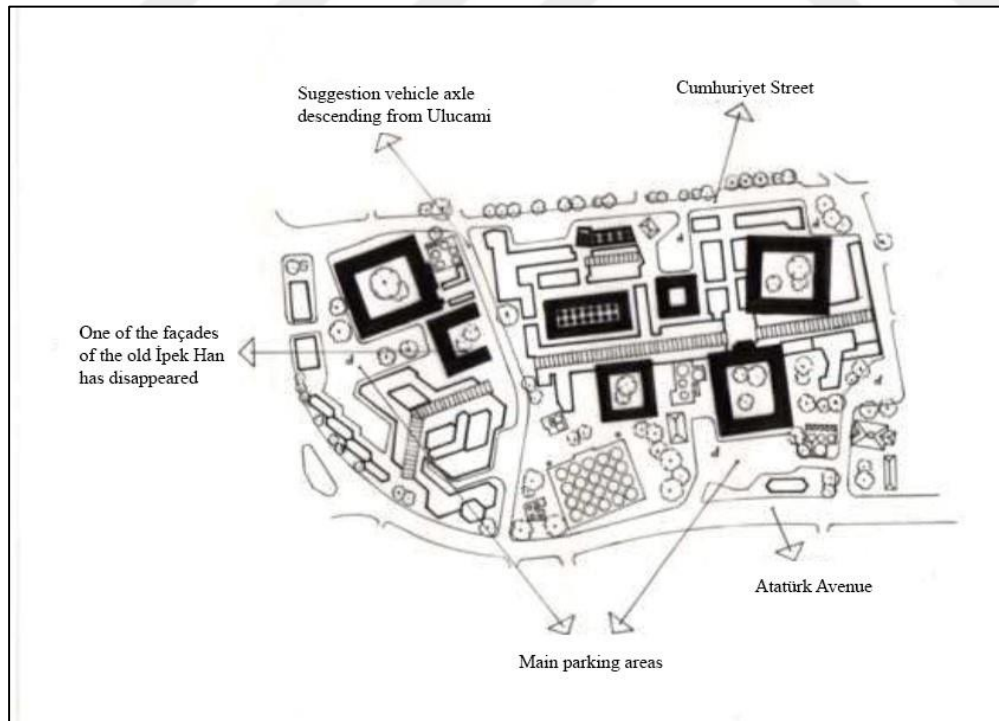


Figure 4.7: Piccinato's proposals for Khans District, edited by the author (Piccinato, 1961, p.1244)

Yıldırım District and its surrounding, south of Ankara Road, are seen to be reserved as housing areas for immigrants. The two-storied wooden shops in the southwestern corner of the Khans District were demolished and replaced with reinforced concrete multi-storey buildings, resulting in a huge change of the traditional urban fabric in the area (Özdemir, 2009, p.152) (Figure 4.8). However, some of these 130 multi-storey adjacent blocks surrounding the Khans District like a wall were registered to be protected as they carried the original architectural characteristics of their construction periods (Bağbancı, 2008, p.107).

Although this project, which describes the mass and areas well, has positive integrity in general. It carried the pedestrian and vehicle circulation to the region intensively, allocating a lot of space for parking area and aimed to combine Ulu Mosque Street and Fevzi Çakmak Avenue which are located in the east of İpek Khan. (Kırayoğlu, 2004, p.64).



Figure 4.8: Reconstruction and renovation applications by using reinforced concrete in destroyed Khans District, after 1958 fire (Çakıcı, 2015, p.101)

Since the conservation and implementation development proposals of the Piccinato Plan could not be implemented in time, the increase in the density of the old city pattern then the transformation to the apartment buildings could not be prevented. With the Condominium Law in 1964, the construction of housing in Bursa was accelerated, and the historic urban fabric was destroyed until the site and protection decisions were taken on the city regions in 1978. At the same time, there was an intense migration to Bursa, as it was chosen as a pilot region of industrialization in 1960 (Köprülü-Bağbancı, 2008, p.109).

In 1964, the first organized industrial zone was established in Bursa. In 1966, the 180-hectare organized industrial zone, 14 km from the city on the Mudanya Road, was completed. With the development of the automotive industry, automobile production

started on the Yalova Road and around the central garage in the 1970s. Another economic development experienced in this period was the establishment of large-scale synthetic thread factories and an integrated weaving industry. The first synthetic thread factory was opened in 1964, followed by factories opened in the organized industrial zone in 1968. In the following years, the number of such facilities increased. The food industry has also changed in scale and quality. Some of them have become holdings over time. All these developments have made Bursa a diversified industrial center (Tekeli, 2007, p.90-91).

4.1.2. Urban structure of Bursa in the 1980s

After the 1960s, economic, social, and physical developments affected each other, and urban identity elements entered a rapid and undefined process. As a result of rapid industrialization and the increase in the number of motor vehicles, the plans made by Prost and Piccinato lagged the city's development rate. Between 1976 and 1984, it was aimed to provide construction and height control in the center to preserve the historic urban fabric and traditional trade center, so the functions in the center were moved to the north. The center was damaged due to rapid construction, and this continued until the site decisions were taken in 1978.

In order not to damage the historic urban fabric during the development of the new settlement areas in the city for the rapidly increasing population due to immigrations in the 1970s, while the studies were continued in İstanbul Master Plan Office. The Master Plan Office in Bursa was established under the leadership of Architect Ertuğrul Menteşe to organize the future planning studies of Bursa.

- **1976-dated Bursa Development Plan**

There is increase in the number of housing in the city center, parallel to the increase in the population due to industrialization. With the increasing population, the pressure on the historic urban fabric in the city center increased. Especially around the industrial areas the fertile lands, such as fruit gardens and agricultural fields were filled with illegal constructions, which began to threaten the Bursa Plain. Due to these developments, the master plan concerning the neighborhoods of Kestel, Gürsu, Demirtaş and Nilüfer Municipality, Kayapa, Çalı, Hasanağa, Görükle, and Akçalar, located in the immediate vicinity of Bursa, in line with the studies carried out by the

Bursa Master Plan Office (*Bursa Nazım Plan Bürosu*) by the Ministry of Development and Settlement (*İmar ve İskân Bakanlığı*) until 1974. It has been prepared on a scale of 25,000. In this plan, it is aimed to define the metropolitan boundaries of the city and to prioritize the protection decisions of the plains (Kırayoğlu, 2004, p.65; Tarih İçinde Bursa, 1989, p.86).

In line with the 1976 Bursa Master Plan, the Ankara-İzmir Road was determined as the northern development boundary of the city. In the plan decisions taken, industrial zones were determined. In the Piccinato Plan, the area of the Organized Industrial Zone is 158 ha. It was increased to 390 hectares with the master plan. With the expansion of small-scale industrial units and existing industrial establishments in the direction of Yalova Road in the north of the city, the Demirtaş region and the small-scale industrial areas and workshops located on the Ankara Road to the east of the city have been given the 'Industrial Zone' feature (Batkan, 1996).

The rapid increase in the population, the effect of The Condominium Law adopted in 1964, and the increase in illegal construction in the eastern and northern parts of the city caused the rapid disappearance of the historical urban fabric in the city center (Bağbancı, 2008, p.109). Due to its location and function, Khans District was one of the areas affected by this destruction. Restoration decisions were taken on monumental buildings in the Khans District, which was rapidly affected by the physical transformations that took place in the city center due to development activities, especially for opening new roads, and the socio-economic changes in the society.

Thus, 1/500 scale master plans and 1/200 scale architectural projects of the buildings to be restored and their surroundings were prepared and submitted to the Conservation Council. In the decision¹⁸ dated 1966 and numbered 3151, measured drawings of all buildings located on the side of Cumhuriyet Avenue, as well as monumental buildings in and around the Grand Bazaar such as Fidan Khan, Chamber of Industry and Commerce, Koza Khan, İvaz Pasha Bazaar, Kapan Khan, Sipahi Bazaar were requested. In addition, it was requested to investigate new settlements and make necessary revisions in the existing development plan (Çakıcı, 2015, p.105).

¹⁸ GEEAYK: 3151 / 04.06.1966

- **1978-dated Decision of the High Council of Real Estate, Antiquities and Monuments**

As a result of the development of industry after the 1960s, the old urban fabric of Bursa was under threat and began to disappear. With the rapid population growth and unplanned urbanization in the city, ‘Bursa Historic, Natural and Archaeological Sites’ were registered in 1978 with the survey of the commission formed in collaboration with İller Bank, the Ministry of Culture (*Kültür Bakanlığı*), the Ministry of Construction and Settlement (*İmar ve İskan Bakanlığı*), the Ministry of Local Administration (*Yerel Yönetim Bakanlığı*), Middle East Technical University and the Bursa Municipality. In this context, the High Council of Real Estate Antiquities and Monuments (GEEAYK) prepared a 1/5000 scaled ‘Bursa Archaeological, Natural and Historic Sites Conservation and Development Plan’.

The first designated protected area was the Khans District. The most important article about this region is the Central Business Area was shifted to the north of Kayhan District, parallel to Haşim İşcan Avenue axis, and the trade center of the Khans District, which became a historically protected area, preserved its current function (GEEAYK, 1979). Although the Khans District was not fully included with this decision, it can be counted as an indication of critical steps have been taken towards the future with the approved conservation principles and bringing historic areas to the fore (Kırayoğlu, 2004, p.67).

In another registration list submitted to the Conservation Board in 1977, monuments were divided into three categories as ‘natural monuments’, ‘religious and cultural monuments’ and ‘civil buildings’. While the historic khans, mosques, and baths in the Khans District, together with the monumental trees around them, were registered as ‘religious and cultural monuments’ and ‘natural monuments’, more traditional houses were registered in the Reyhan, Kayhan and Setbaşı Districts. Monumental buildings, especially mosques, khans, and baths, which are situated in the historic trade center, were registered as ‘religious and cultural buildings’. Bedesten, souqs and shops around it, *IvazPasha Bazaar*, *Emir Khan*, *Koza Khan* and *Inner Koza Khan*, *Geyve Khan*, *Mahmut Pasha Khan*, *İpek Khan*, *Tuz Khan*, *Çukur-Kütahya Khan*; religious buildings such as *Orhan Mosque*, *Tuzpazarı Mosque*, *Kayıhan Mosque*; *Nalincılar Bath*, *Şengül Bath*, *Dayıoğlu Bath*, *Irgandı Bridge* on Gökdere Stream are registered. A few parcels

remaining from the Deveciler Cemetery, located in the north-east of the Reyhan region, have been registered as 'religious monuments'. On the other hand, Pınarbaşı Cemetery, and its surrounding parcels, which were registered as 'religious buildings' in 1974, were registered as 'natural property' in 1977, while parcels belonging to monumental religious buildings such as *Orhan Mosque*, *Tayakadin Mosque* were designated as mosques, 'religious and cultural monuments' and registered under the headings of 'natural monuments'. In the same decision, the parcels including the Municipality Building's, one of the late Ottoman public buildings and the Early Republican Period 'Governorship-Courthouse' were registered as civil buildings (Çakıcı, 2015, p.107).

The first decision regarding new buildings in the historic urban fabric of Bursa was taken in 1962. Two-storey high shop buildings were built to organize the book collector's courtyard around the Ulu Mosque.

- **1984-dated Bursa Development Plan**

As a result of the huge population increase and the rapid development of the city, the 1976 Implementation Plan for Bursa was insufficient, becoming invalid shortly. In addition, the 1/25,000 scaled development plan was studied more comprehensively and in a detailed manner. Thus, the staff of Bursa Master Plan Office was expanded in 1980 and the studies on the larger scaled 1/5000 master plan was started.

As a result of the rapid increase in the urban population and the rapid development of the city, the implementation plans prepared for Bursa were insufficient and the implementations hardly solved the problems of the historic center. Therefore, within the scope of the new plan to be made, it was aimed to make a conservation plan maintaining the Khans District of Bursa without damaging its existing original characteristics (Çakıcı, 2009, p.25). Despite the conservation decisions, changes occurred in the Khans District and the deterioration of the original qualities could not be prevented. As a result of the studies carried out, functional changes have emerged in the area as well as spatial changes and have caused great damage to monumental buildings such as khans, baths, and bazaars that reflect the history of Bursa. The decisions of the conservation-oriented development plan created in this context were not followed, it was difficult to find solutions to the problems in the historical areas and was insufficient to respond to the problems specific to these areas in terms of scale

(Kırayoğlu, 2004, p.67).

Orhangazi Square, an important public square in the Khans District, is surrounded by important historic buildings that have been influential in the formation of the city center. Various plans have been made since 1960 regarding Orhangazi Square, which is located to the north of Atatürk Avenue and east of the Ulu Mosque. The first of these was the construction of an underground car park in this area in 1970. However, this project was not realized. Towards the end of the 1970s, the non-historic buildings in the area were planned to be demolished to create a public open space but wasn't realized as well. With the project developed in 1982, it was aimed to give importance to historic artifacts to provide access to the area by an underpass under Atatürk Avenue, and to protect the existing plane trees on this axis. New proposals were suggested for the arrangement of the area where various buildings were located and where congestion was experienced due to the density of pedestrians and vehicles. The idea of organizing it as a pedestrian-only square was decided in 1980, the urban design of the square was started by Arolat Architecture in 1983, and the construction process was completed in 1985 (Dostoğlu, 1999, p.86-95).

- **1989 Central (Reyhan, Kayhan and Khans District) Conservation Plan**

The Conservation Development Plan, which was commissioned by METU in 1989 to preserve the historic values of the city center, ensuring its integrity and raising the living standards, consisted of the Khans District and the Reyhan District in the north of the region and the Kayhan District in the east. The project area was surrounded by the roads Cemal Nadir Avenue in the west, Atatürk Avenue in the south, Hasim İşcan Avenue in the north and Gökdere Stream in the east.

With this planning, it was aimed to ensure the integrity of the Khans District with Reyhan and Kayhan neighborhoods, to prevent the exclusion of the population living and working in the project area due to the conservation and renovation works, to deal with the project together with social planning and to reveal the potentials of the plan against the restrictions that the Municipality will impose on individuals and families (METU, 1989). Bursa City Center-Reyhan, Kayhan, Khans District-Conservation Plan was put into effect in 1992. In this plan, urban areas were determined and 6 special project areas (Tuz Khan and Nilüfer Bazaar, Kütahya Khan, and the surrounding shops, *Eski Yeni Galle* Bazaar, Davut Pasha Bath and its surroundings, Setbaşı Stream

Recreation Areas and *Ayakkabıcılar Çarşısı* Conservation and Landscaping Project were created (Kırayoğlu, 2004, p.75).

With this Plan, it was aimed to protect the urban fabric in the western periphery of the Khans District to control the deterioration that started towards the interior, and to integrate the Kütahya Khan, Nilüfer Bazaar, Tuz Khan, Tuz Bazaar and Okçular axis with the bazaar area. In addition, it was aimed to create new commercial areas in the form of a ‘commercial sub-center’ with inner courtyards on İnönü Avenue, benefiting from the parcels to create green areas by preserving the building blocks in the southeast, or to serve the immediate environment by providing public open areas in the form of an inner courtyard (METU, 1989).

4.1.3. Urban structure of Bursa in 1989

In this section, the urban structure of Bursa Khans District in 1989 is analyzed under three morphological components as: urban fabric, urban circulation network and land use pattern. In addition, the changes of urban fabric between 1957 and 1989 are examined and put forward.

4.1.3.1. Urban fabric in 1989

According to Tekeli (2001), with the transition to the multi-party system in the 1950s and after, politics turned into a populist system that would respond to the demands of the people in the short term, did not require infrastructure, and was based on favoritism of its own supporters. In this context, the main roads and squares in large city centers were expanded by offering them to the service of the economy, and the ground floors were arcaded for the pedestrians, and the upper floors were business centers for the office and service sector. Depending on the map superposed with the aerial photo of 1996 (in Appendix 3), it is seen that the streets were widened for the motor vehicles, and green areas on the sidewalks and median strips were removed. Batuman (2002) defines these spaces as places of luxury consumption services for the daily life of bourgeois, as the business center of the city for big capital, as a political arena for rising workers' movements, and for those living in slum areas as the status indicators to be included in the city. Depending on the map (Figure 4.9), that the low-rise wooden mansions with gardens on Atatürk Avenue were demolished.

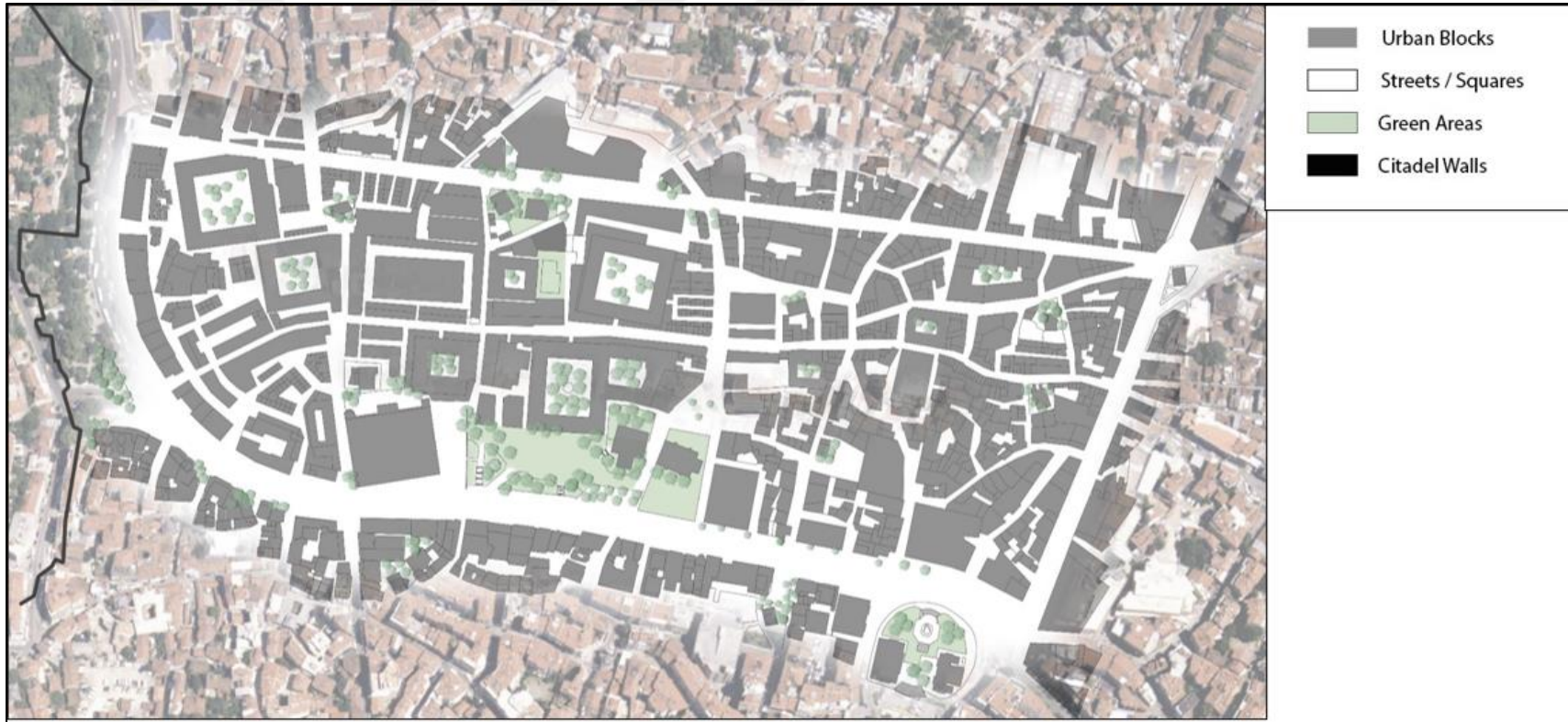


Figure 4.9: Urban fabric of the Khans District in Bursa in 1989 (Redrawn by the author after 1989-dated Map)

These buildings replaced with high-rise apartment and commercial buildings. However, multi-storey new buildings were constructed adjacent to each other, and their heights were more than the width of the street. In addition, it is found out that the number of parcels were decreased by unification, parcel sizes and building masses were enlarged due to the changes made in the original cadastral pattern in this period. As a result, the traces of the traditional organic urban fabric of the Ottoman period disappeared in terms of building texture due to cadastral changes. With the new Condominium Law, construction conditions granted increased construction rights, and the building fabric has become denser. In addition, two-three storied buildings in the area were demolished and four- five storied office buildings were constructed instead. It is observed that the number of floors was increased, detached order has been replaced by adjacent order for new constructions, causing a critical transformation in building types and functions as well (Polat, 2011, p.204).

In the period between 1950 and 1980, new public outdoor spaces were not created in Bursa due to the impact of the political and economic problems in Turkey. The investments in the production areas of transportation, industry, and housing, and the Cumhuriyet Square continued to be used as a public outdoor space. The streets have come to the fore in public life when the importance of recreation areas as public outdoor spaces has decreased.

During this period, Atatürk Avenue, State Theater (previously Marmara Cinema), Tayyare Cinema, Saray Cinema, Şarkulüp, Mountaineering Club, Romans Tea Garden, Muhallebici Mecid, Sekercioğlu Stationery, Ali Haydar Bookstore, Kafkas Patisserie, Yeni Cinema, Dilek Cinema, Mahfel Coffee House were popular. Spending time between Setbaşı and Post Office has become the most important social event (Figures 4.10, 4.11).

Between 1970 and 1980, new apartment buildings were constructed near the traditional houses on Atatürk Avenue. A wooden house opposite to Tayyare Cinema on Atatürk Avenue, the City Restaurant and Kafkas Patisserie were demolished (Özdemir, 2009, p.70).

In addition, while the central functions on Altıparmak Avenue and Fevzi Çakmak Avenue were changed, insurers and accountants in the Khans District gathered around Yeşil Neighborhood.

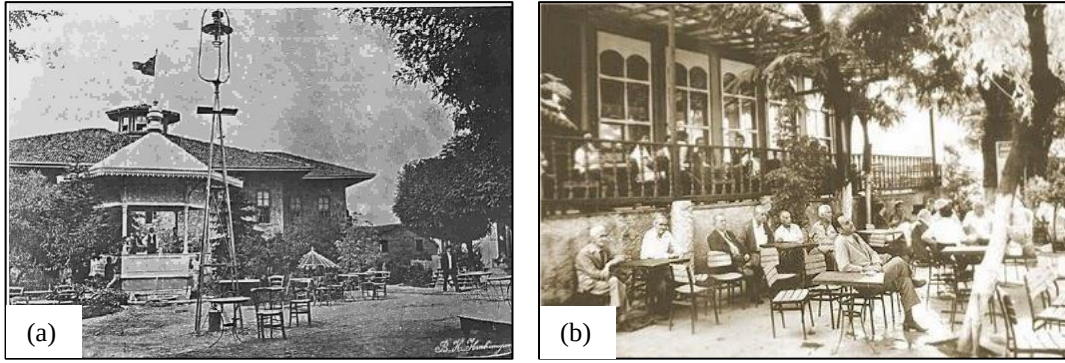


Figure 4.10: (a) Romans Tea Garden, next to the Municipality Building (Bursa City Museum Archive)

Figure 4.11: (b) Mahfel Coffeehouse (Bursa City Museum Archive)

The focus of governmental buildings such as the Government House, Municipality building, and Courthouse, built in the 19th century, maintained their importance in this period. Services such as law offices closely related to these governmental buildings were also located in this area. The inner part between Atatürk, Cumhuriyet, Cemal Nadir and İnönü Avenues, the busiest area of the center, also had residential stock and the tradesmen's workplaces were clustered in this same zone. In the past, the khans had a cocoon market on the ground floors and accommodation on the upper floors, but starting from this period, there are retail and wholesale trade use on the ground floors, and office uses such as wholesalers' offices and accountants on the upper floors. The Grand Bazaar housed jewelers, coppersmiths, etc. for tourists and high-income groups, specialized in sales functions. In Uzun Çarşı, an extension of the covered bazaar, the type of trade targeting the lower income groups and the villagers has increased. In the areas outside the Khans District, there were commercial and service buildings such as restaurants, hotels, and small entrepreneurial confectioners for low-income groups and visitors from the rural areas (Tekeli, 2007, p.92).

Change of urban fabric in the Khans District in Bursa from 1957 to 1989:

When the two maps are superposed (Figure 4.12), the most important change is seen as the formation of a new multi-storey building group in adjacent order at the junction of Cemal Nadir Avenue and Atatürk Avenue, which form the western and southern borders of the Khans District, creating a wall effect. Here the sparse urban fabric was densified blocking the western entrance of the Khans District with buildings like the Central Bank.



Figure 4.12. Change of the Urban Fabric in the Khans District in Bursa from 1957 to 1989 (through the superposition of 1957 and 1989-dated maps by the author).

The area where the banks, gas stations and shops were located to the south of the Ulu Mosque was rearranged and designed as Orhangazi Square and started to be used as a public open space.

The low-rise, wooden traditional buildings on Atatürk Avenue were demolished and replaced with multi-storey office and commercial buildings (Figure 4.13).



Figure 4.13: View of Cemal Nadir and Atatürk Avenue from Bursa Tophane in the 1950s (Url-31)

4.1.3.2. Urban circulation network in 1989

When looked at the 1989-dated map (Figure 4.14), Sarı Abdullah Street, located between Ünlü Street in the east of Cumhuriyet Area and Atatürk Avenue in the direction of Setbaşı, was closed and turned into a void within the building block (1). However, with the expropriations, some new streets were opened, existing ones were widened, and some were cancelled while remaining within the building blocks.

The street from Setbaşı to Yeşil Neighborhood (2) was rehabilitated and widened meanwhile (Kaplanoğlu, 2008, p.74).

During this period, vehicle traffic on Atatürk Avenue was two-way (Figure 4.15).

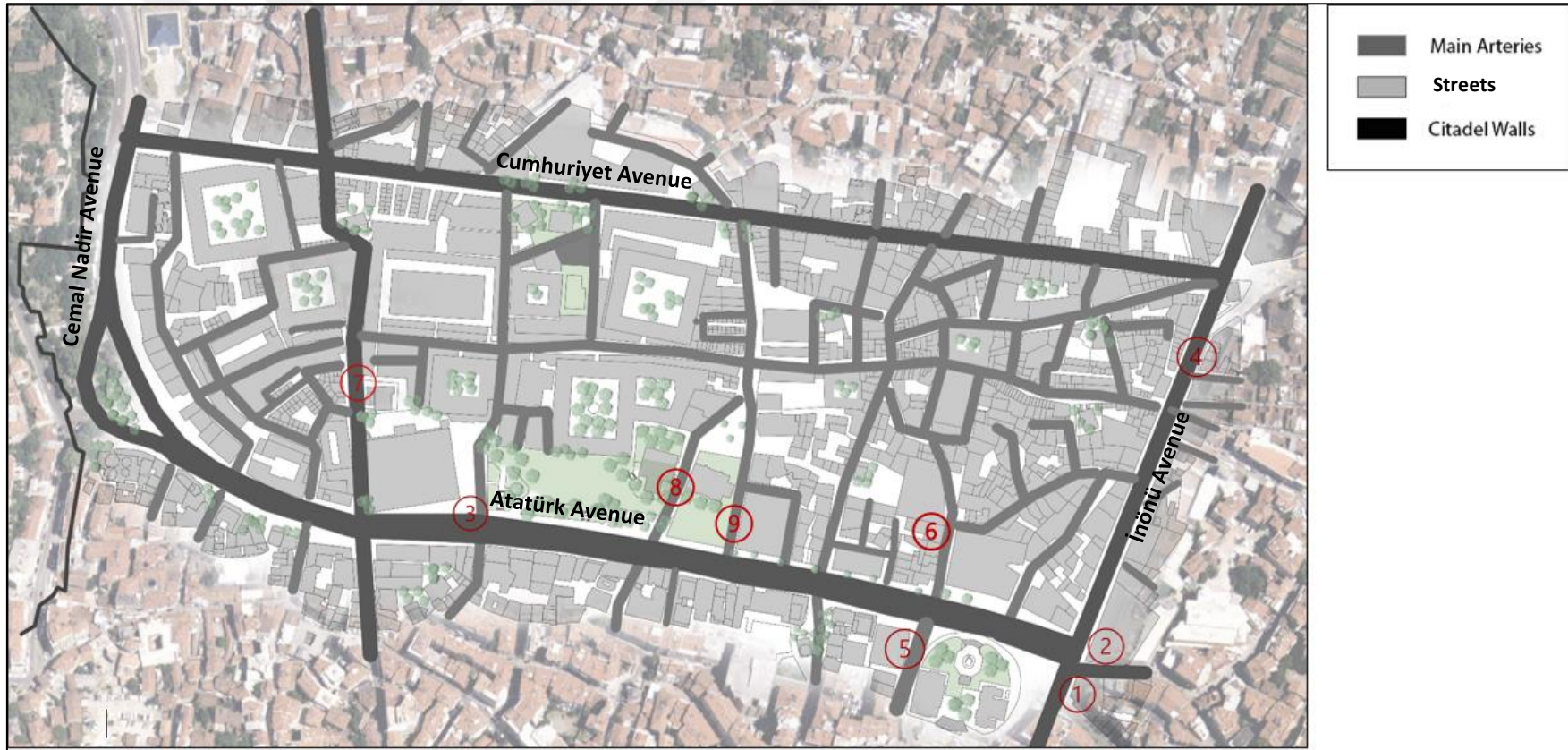


Figure 4.14: Urban circulation network of the Khans District in Bursa in 1989 (Redrawn by the author after 1989-dated Map)

During this period, the name of some avenues or streets were changed such as; Gazi Pasha Avenue to Atatürk Avenue (3), İsmet Pasha Avenue (Gemlik Avenue-Yeniyol) to İnönü Avenue (4), Kara Şeyh Street to Başak Street (5), Simkeş Street to Gümüşçeken Street (6), Mecidiye (Fevzi Çakmak Avenue to Ulu Mosque Avenue (7), Orhan Camii Street to Belediye Street (8), Arabacılar Street to Uçan Street (9).

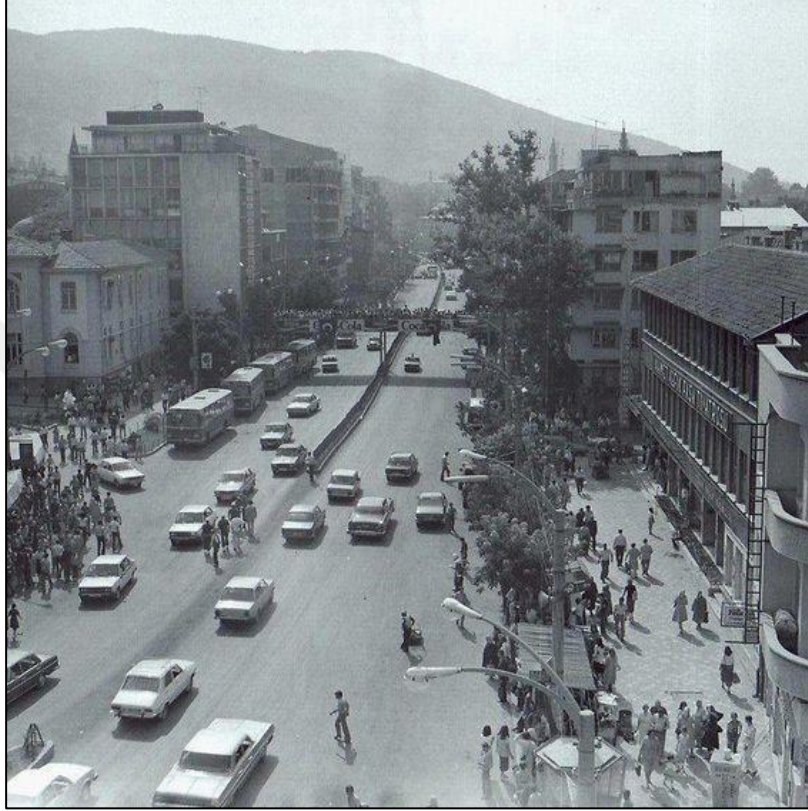


Figure 4.15: Two-way traffic on Atatürk Avenue in the 1980s (Url-32)

4.1.3.3. Land use pattern in 1989

A multi-storey car park building project, including shops, has been developed for the area between Ulu Mosque and Orhan Mosque, today known as Orhangazi Square (1). In the 1980s, the buildings in the area were expropriated and landscaping works began. However, the car park building project was not approved by the High Council of Monuments on the grounds that it could damage the historic plane trees in the area and spoil the silhouette of the Ulu and Orhan Mosques. During the expropriation of the area, the Bursa Market building (former Ottoman Bank building) and other historic buildings were demolished. As a result, the landscape works started in 1984 were completed in 1986 and the square was opened to use.

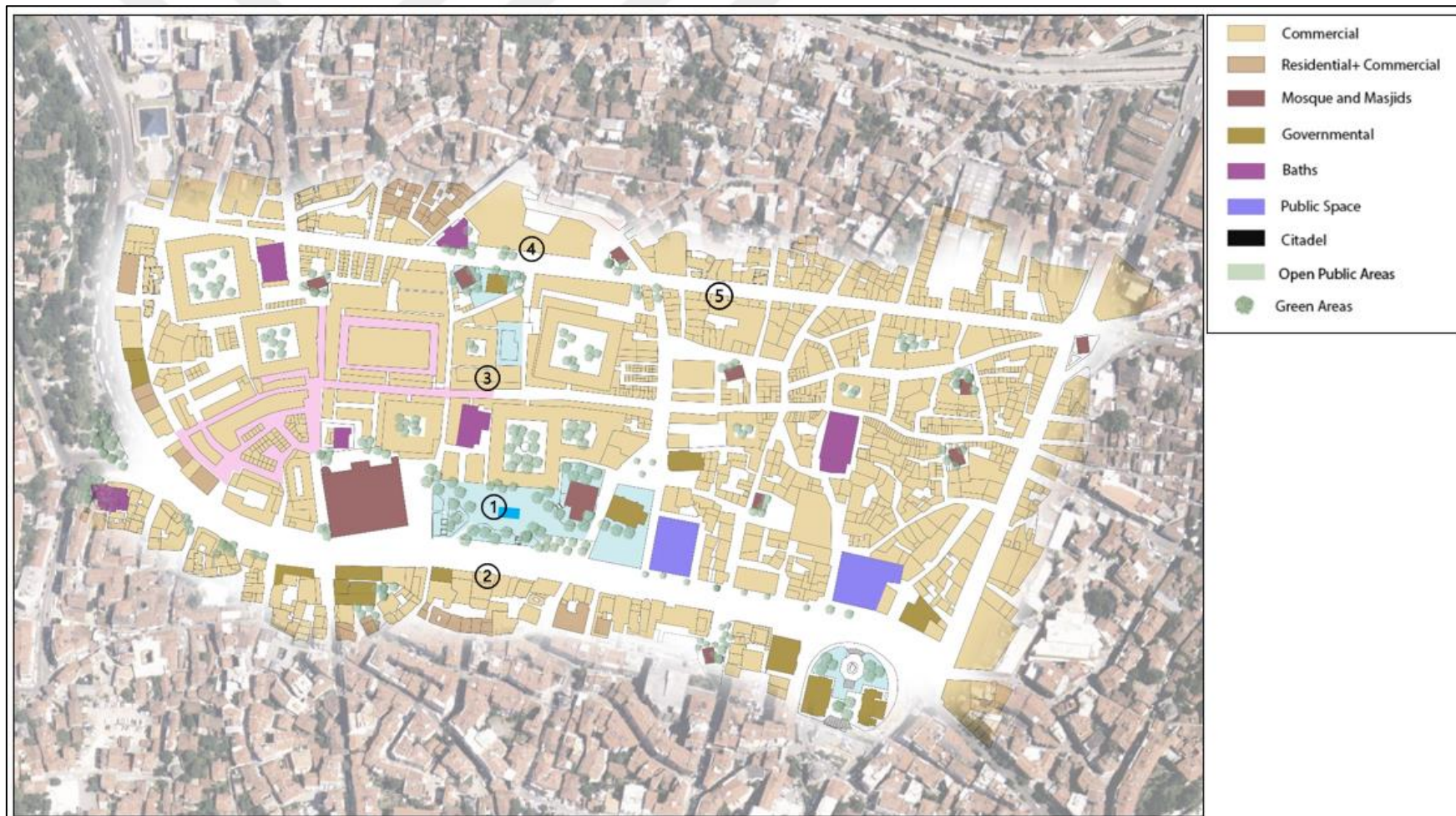


Figure 4.16: Land use of the Khans District in Bursa in 1989 (Redrawn by the author after 1989-dated Map)

The architectural design of the square was made by Şaziment-Neşet Arolat in 1983. With this project, the area was cleared of scattered old buildings and turned into a pedestrian area in the center of the city (Figure 4.17). It was aimed to connect the subway to the square, protect the registered plane trees and create new green areas, as well as indoor and outdoor spaces for cultural activities. Currently existing square is bordered by Ulu Mosque to the west, Koza Khan and two commercial buildings to the north, Orhan Mosque and the historic Municipality Building to the east, and Atatürk Avenue to the south. Tayyare Cultural Center is located opposite the area where the square connects to Uçak Street.

The square was designed on two levels as: lower and upper. On the lower level, there are seating areas around the pool and the fountain, the cafeteria section, and other intermediate areas, and on the upper level, there are cafeteria, seating areas arranged above the shops and an exhibition hall, which can be accessed from the lower level.



Figure 4.17: Views of the square (Altay et.al, 2021, p.849)

As mentioned in the urban fabric section, multi-storey apartment buildings formed the character of Bursa Atatürk Avenue after 1965. Instead of two or three-storied wooden, detached traditional houses on Atatürk Avenue, multi-storey apartment and office buildings with their new materials and techniques, reflect the power of the modern period. (2) (Figures 4.18, 4.19).

The changes in the economic life of the city in the early 1960s also affected the historic trade center. In this period, small workshops with weaving looms in and around the Khans District were replaced by units where wholesale and retail trade were carried out. In 1973, Bursa Sanayi ve Ticaret Odası Building (3) was built in the open area between Fidan Khan and Geyve Khan.

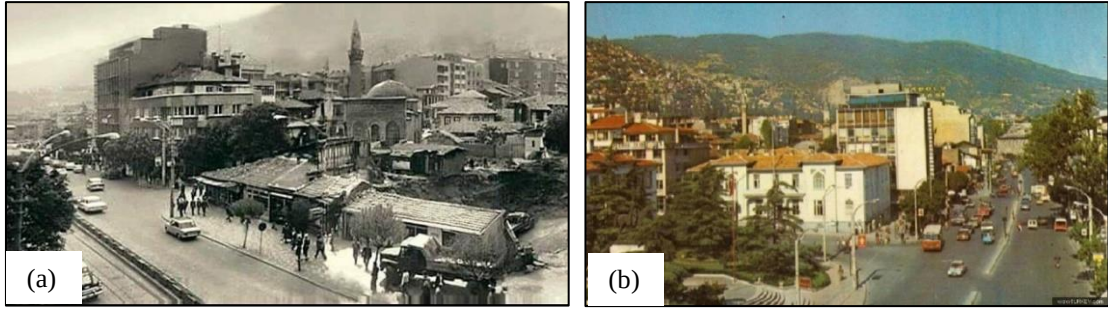


Figure 4.18: (a) Wooden buildings on Atatürk Avenue which were demolished and replaced with multi-storey buildings in the 1960s (Url-33)

Figure 4.19: (b) General view of Atatürk Avenue in 1970s (Url-34)

In 1979, Gökçen Business Center (4) was opened on Cumhuriyet Avenue, and in the following years, Doruk Bazaar and United Onur Bazaar (5) were also located on this axis (Figure 4.20).



Figure 4.20: Gökçen Bazaar in 1990 (Google Maps)

Bursa Central Bank building:

Bursa Central Bank Building, located on the southwestern border of Bursa Historic Trade Zone, was designed for the competition by Şevki Vanlı and Ersen Gömleksizoğlu in 1965 and built in 1967. The lower floors were designed as banks and the upper floors as residences (Figures 4.21, 4.22). At the junction of Cemal Nadir Avenue and Atatürk Avenue, in a contiguous area with a wall effect, the general spaces of the residences on the upper floors of the building were designed to face Bursa, and

other spaces were placed on the main street. It shows brutalist features as an architectural style (Mimarlar Odası Bursa Şubesi, 2020, p. 72).

A general view of urban fabric from Bursa in the 1970s can be seen in Figure 4.23.



Figure 4.21: (a) Bursa Central Bank building (1988-1990 National Architecture Exhibition and Awards Program Archive)

Figure 4.22: (b) Bursa Central Bank building and Khans District (Url-35)



Figure 4.23: General view of urban fabric from Bursa, Tophane in the 1970s (Bursa Metropolitan Municipality Archive)

Change of land use in the Khans District in Bursa from 1957 to 1989:

When two maps are superposed (Figure 4.24), it can be seen that Orhangazi Square, the area between Ulu Mosque and Orhan Mosque, was designed as a public open space (1). It is seen that the tobacco warehouse (2) next to the Perşembe Bath on Cumhuriyet Avenue was destroyed after the 1958 fire and today's Doruk Bazaar was built in its place (Figure 4.25).



Figure 4.24: Change of land use in the Khans District in Bursa from 1957 to 1989 (through the superposition of 1957 and 1989-dated maps by the author).

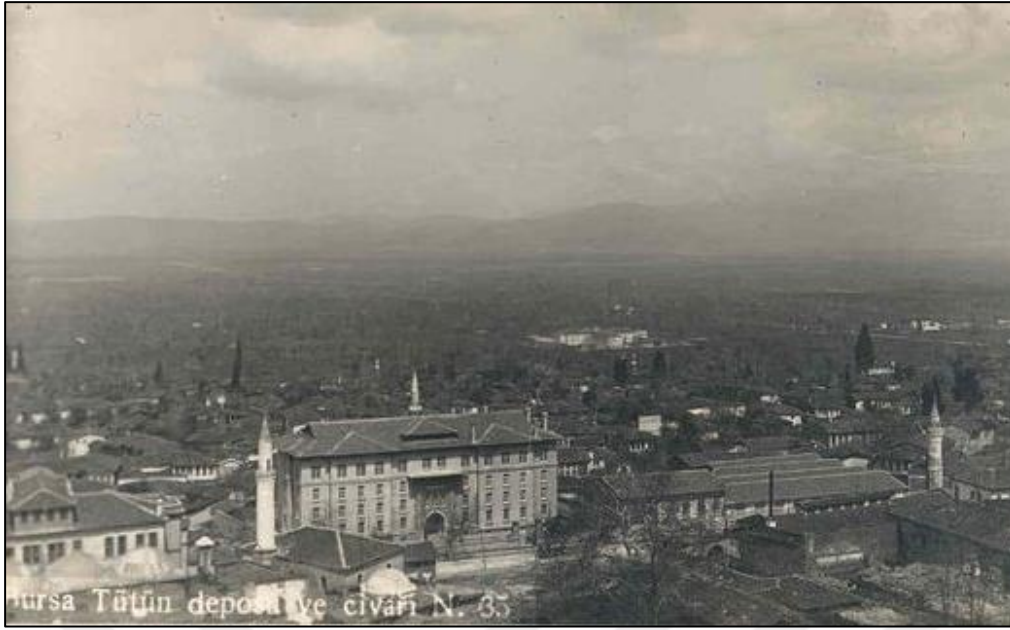


Figure 4.25: Bursa Tobacco Warehouse in the 1950s (Bursa City Museum Archive)

Another building destroyed by the fire of 1958 was Sarıca Sungur Mosque (3). This mosque, which can be seen on the 1957- dated map, cannot be seen in 1989.

The low-rise wooden buildings on Atatürk Avenue were demolished and replaced with multi-storey office and commercial buildings (4).

Instead of small-scale shops, commercial office buildings were constructed along Cumhuriyet Avenue (5).

On the southwestern border of Bursa Historic Trade Zone, the Central Bank building was constructed after an architectural competition (6).

4.2. Bursa from 1980s to 2018

In this section, the social, cultural, historic, and economic developments that affected Bursa Historic City Center and the Khans District between 1989 and 2018 are examined and put forward.

4.2.1. Socio-economic structure of the city

With the developing industry and economic development, in the extension of the city center on Altıparmak Avenue in the west, a concentration of trade and service for high-income groups and luxury consumption has emerged. These kinds of stores, furniture, boutique, car showroom, etc. with trade, health services for high income groups,

doctor's offices, etc. took place. The restructuring of the city center also focused on this axis. Disconnected from the main center, another neighborhood where luxury and prestigious consumption for tourists was the section of Bursa-Mudanya Road that was extended to Kükürtlü in the south.

The extension of the center towards Setbaşı was planned for the daily shopping of middle-income groups. Carpet makers and furniture manufacturers took place towards the green district. The garages area, which is the northern extension of the center, is located on the Mudanya-Ankara and Bursa-Yalova Roads. The bus terminal used to be located at the intersection of these two roads until two years ago. While the industrial area continued to grow in the north, the northern regions of the city center have started to attract banks, insurance companies and offices serving large industries (Tekeli, 2007, p.93).

While the city center developed on the extension of the main roads, it was also insufficient to meet the services required by the new industrial production system. The services required by the economy of Bursa, which has entered the path of integration with the globalizing world economy, have started to gather on the Yalova Road by breaking away from the traditional center. Bursa International Textile Trade Center (BUTTİM) was important as a new business center. Established on the Bursa-Yalova Road, this center consisted of a five-storied main block and a 28-storied tower and included 1583 workplaces and 88 offices. It was carried out between 1991-1997 by a workplace cooperative established by large-capital textile manufacturers. It was Turkey's most developed trade center specializing in textile exports. Such a development was attracting new service organizations to its environment (Tekeli, 2007, p.93).

Sönmez Plaza, a shopping center of 45,000 m², was built in 1993. Ali Osman Sönmez Technical School near the Plaza has been converted into a university. The new bus station built on the 13 km of Yalova Road was put into operation after 1997, so the bus station in the city was removed. These developments have caused traffic jams on the Yalova Road (Tekeli, 2007, p.94)

These developments on the Bursa-Yalova Road show a break from the traditional business center. The separation from the traditional center in the center, which did not occur during the modernization of the 19th century, took place at the end of the 20th

century with the effect of globalization. It can be said that these developments have also caused a change in Bursa's relations with İstanbul.

There has also been a transformation in residential areas, as the existing urban fabrics have been demolished and there has been a rapid apartment building in their place and the urban fabric cannot be enough for the current population due to the increase in population. However, with the opening of new areas for housing construction, the spatial spread of the city has increased. New forms of housing presentation have emerged to meet this need. As a result of the sudden increase in land prices through build-sell and cooperatives, the middle classes were able to have an apartment floor by dividing the cost of the land. The high land prices, especially in the settled parts of the city, on the one hand, caused an increase in the demand for slums and mass housing after 1980. With the construction of the University campus in Görükle, the spread of middle and upper middle-income houses in the direction of İzmir Road accelerated in the early 1980s. In addition, cooperatives started to develop in Fethiye-İhsaniye. After 1985, high-income villas and prestige residences developed in Bademli on the Mudanya way.

With the establishment of the Hürriyet neighborhood on the Mudanya Road for immigrants from Bulgaria, residential areas were opened to the north. In the following years, İstiklal, Adalet and Milliyet Districts were added to this settlement. The development of the organized industrial zone on this axis has revealed the concentration of workers' residences in these areas. Sümerbank-Merinos Factory has also increased worker housing. The low-income migration of the city from the countryside has increased the shanty settlement. These areas have become to cover a very large area in the north of the Mudanya-Bursa-Ankara Road in the west of the city and in the north and south of the road in the east of the city.

Mass housing areas developed after 1980 were developed in the west of the Bursa-Mudanya Road and in the north of the Bursa-İzmir Road. Some of these developments occurred in line with the 1984 plan decisions, but illegal construction took place in areas such as Fethiye, İhsaniye and Beşevler.

- **1995 1/5000 scale Bursa Master Plan Revision**

In this plan, which was the revision of the 1984 Master Plan, the decisions that were

not implemented and outdated were revised. No new decisions have been taken regarding the historic city center (Vardar, 2008, p.86).

- **1998 Strategy Plan**

This plan is a 1/100,000 scaled plan targeting the year 2020. In this planning, new planning regions were created, and the Khans District was named as the Central Planning Region (Bursa Metropolitan Municipality, 1999).

- **1999 Environmental Development Plan:**

In the Central Planning Region, which is the most important of the sub-regions determined by the 1998 Strategy Plan, the 1/25.000 scale Environmental Planning Master Plan was prepared in 1999. In this plan, Khans District was determined as a central trade center.

The main decisions of the Central Planning Region are:

- Conservation, rehabilitation, and restoration of the historic center located in the Central Planning Region,
- In 2020, the center identity will be determined mainly by the service sector,
- No density increase,
- Establishing green axes and settlements to improve the settlements in the region,
- The traditional center, determined as the 1st level center, is aimed to be determined as the main center where all the centers in the Metropolitan region are affiliated, where all kinds of goods purchase and sale functions, service places and cultural management equipment is located (Köprülü-Bağbancı, 2007, p.102).

In 2000, the Historic Pedestrian Axis Project was developed as a concept project to bring together the previously proposed conservation projects in the city center and the old sub-centers (the complexes and the castle) on a pedestrian platform. With the historic pedestrian axis project, it is aimed to reveal the location and function relationship between the new city center and the old center of the Khans District and

to preserve the central function of the Khans District by clearly seeing the relations with the historic urban areas (Kırayoğlu, 2004, p.75).

At the same time, Fidan Khan-Geyve Khan Conservation and Landscaping Project, Uzun Çarşı Façade Arrangements and Shoemakers Bazaar, Pirinç Khan Protection and Landscaping Projects were carried out by Bursa Metropolitan Municipality. The objectives aimed for the Khans District with these projects are as follows:

- Preserving the unique qualities of the area, which preserves Bursa's historic trade center and original value, and adhering to these originality values in new regulations,
- Realization of joint participation and working principles between governmental buildings and the public in the regulation and innovation studies to be carried out,
- Developing a transportation plan that will increase livability and perception in the historic city center and provide adequate service for pedestrian and vehicle use, and planning to strengthen pedestrian axes in particular,
- Preparation of necessary infrastructure works to eliminate visual pollution in the area,
- In addition to the public project areas, the determination of special project areas and priority work areas and the implementation of urban design and landscaping that will increase the attraction of the historic city center,
- Developing the historic inventory for the Osmangazi region, creating an inventory of existing registered works in the first stage, and determining the types of interventions to be made in the second stage,
- It is aimed to unify the conservation development plans prepared throughout the city of Bursa, and to increase the legibility of the plans by ensuring the unity of language and representation (Bilenser, 2003, p.130).

Projects prepared by Bursa Metropolitan Municipality between 2000-2018 regarding the area are:

Kapalıçarşı (Grand Bazaar) Improvement Project

In line with the works to be carried out with the Grand Bazaar tradesmen's

associations, it is aimed to minimize the deterioration, improve the existing urban fabric, arrange the façades in the bazaar area, and improve the panels and showcases on the shop fronts.

Tuz Khan Conservation and Landscaping Project

The khan, located on Tuzpazarı Street, was brought to Bursa by being handled in the restoration works carried out in the Bazaar Region within the scope of the Historic and Cultural Road Revitalization Project of Osmangazi Municipality (Figures 4.26, 4.27). Tuz Khan, which was the heart of the salt and spice trade in the Ottoman period but was affected by the earthquakes and the fires in time, became a ruin and was used as a warehouse. It has been restored in accordance with its formal original architectural characteristics with the careful restoration work of Osmangazi Municipality. The conservation works to bring the completely privately owned khan, back to life that started in 2006 and were completed in 2007. This small khan, with a total area of 1,100 square meters, has become one of the major attraction centers of the region.



Figure 4.26: (a) Inner courtyard of Tuz Khan (Url-36)

Figure 4.27: (b) view of Tuz Khan from top (Url-36)

Kütahya (Çukur) Khan Conservation and Landscaping Project

It is aimed to carry out the restoration of Kütahya (Çukur) Khan, which has lost its originality, and to carry out landscaping works that will bring vitality to the surrounding area. The khan, whose restoration was completed in 2013 by Bursa Metropolitan Municipality, was put into service (Figure 4.28).



Figure 4.28: Kütahya Khan restoration project (Url-37)

Galle (Tahıl) Khan Conservation and Landscaping Project

Located at the entrance of Cumhuriyet Avenue and divided into two during the opening of the street and a large part of which was destroyed, the inn was aimed to be brought to Bursa by having a restoration project drawn in 2006. Its restoration was completed in 2008 (Figures 4.29, 4.30).



Figure 4.29: Galle Khan before renovation (Bursa Metropolitan Municipality)



Figure 4.30: Galle Khan after renovation (Bursa Metropolitan Municipality)

Pirinç Khan Conservation and Landscaping Project:

The restoration of the khan, one corner of which was destroyed during the opening of Cumhuriyet Avenue, was carried out by the Provincial Directorate of Public Works (*Bayındırlık İl Müdürlüğü*). As a result of the implementation completed in 2002, the ground floor is mainly used for food and beverage and the upper floor mainly sells books (Figure 4.31).



Figure 4.31: General view of Pirinç Khan, after restoration project (Url-38)

Geyve Khan Conservation Project

Restoration were started by Osmangazi Municipality in February 2006 and restoration works were completed in July 2007 and Geyve Khan was brought together with its original identity and new face to the people of Bursa (Figures 4.32, 4.33).

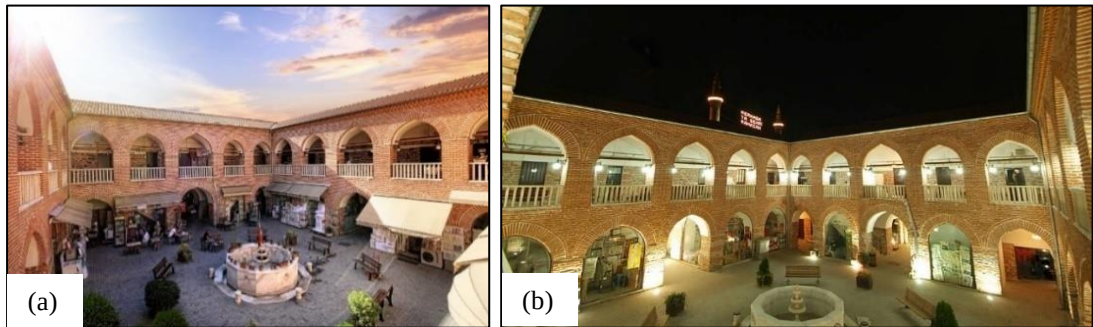


Figure 4.32: (a) General view of Geyve Khan, after restoration project (Url-39)

Figure 4.33: (b) General view of Geyve Khan, after restoration project (Url-39)

Fidan Khan Conservation and Landscaping Project

The khan, which was built in the 1400s, has preserved its feature of being an important trade center. However, the barn part, which is passed through the eastern façade, has gradually disappeared over the years and shops have been built in its place, which have no aesthetic value and negatively affect the architectural appearance of the khan. The surveys were prepared in 2007 and the restoration works started because of the project approved by Bursa Cultural Heritage Preservation Regional Board in 2010 (Figure 4.34).



Figure 4.34: Fidan Khan courtyard (Url-40)

Tuz Pazarı Rehabilitation Project

Tuz Pazarı (Salt Bazaar), one of the oldest bazaars of Bursa, started its new period in 2005 with the project made by Osmangazi Municipality, considering the opinions of tradesmen engaged in marketing in an unhealthy environment (Figures 4.35, 4.36).



Figure 4.35: (a) Tuz Bazaar before renovation (Bursa Metropolitan Municipality Archive)

Figure 4.36: (b) Tuz Bazaar after renovation project (Bursa Metropolitan Municipality Archive)

Uzun Çarşı and Okçular Çarşısı (Long Bazaar and Archer's Bazaar) Rehabilitation Project: In the region, top cover, façade rehabilitation in accordance with the historic urban fabric and façade improvement works were carried out in Uzun Çarşı-Tuz Pazarı-Okçular Bazaar (4.37).

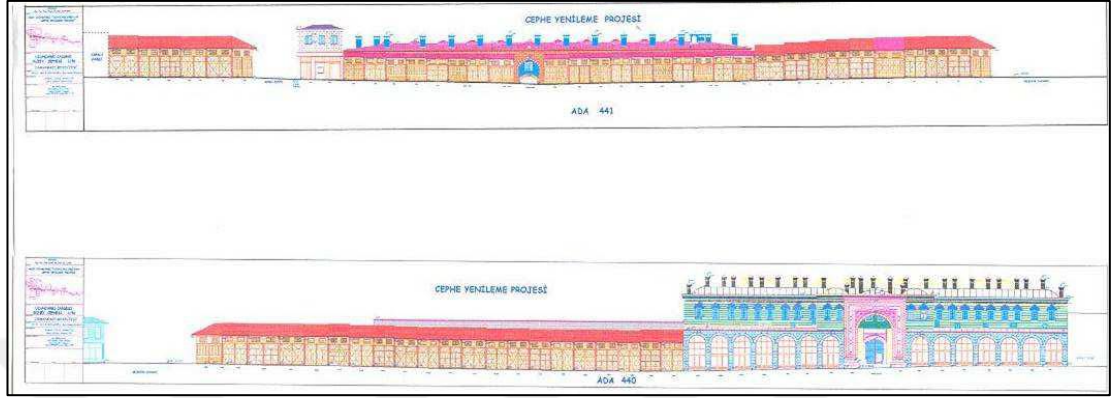


Figure 4.37: Uzun Çarşı façade renovation project north and south views (Osmangazi Municipality)

İç Fidan Khan-Old Market Building and Tuz Pazarı Mosque Surrounding Rehabilitation Project

İç Fidan Khan, which was demolished by the 1855 earthquake, can be clearly seen in the east of Fidan Khan on the 1862-dated Suphi Bey Map. Within the scope of the bazaar arrangement works by Osmangazi Municipality, studies were started in 2015 (Figure 4.38). By Bursa Cultural Heritage Preservation Board, in order to investigate the building foundations of the stables and warehouse parts of Fidan Khan in the sources, excavations were carried out in İç Fidan Khan. After this first stage work, it is aimed to carry out rehabilitation works including the Old Market Building and Tuz Pazarı Mosque, which was built on the ruins of the İç Fidan Khan and Bezir Khan, also create a new building that preserves its commercial function (Figure 4.39).

Koza Khan Restoration Project

With the Fidan Khan-Geyve Khan-Koza Khan Urban Conservation Project, it was aimed to increase the perceptibility of the khans within the traditional pattern by cleaning the unqualified buildings surrounding the khans over time, and to preserve the commercial function in the region. Some structures that are incompatible with the historic urban fabric were removed and the arrangement works for pedestrian use were completed.

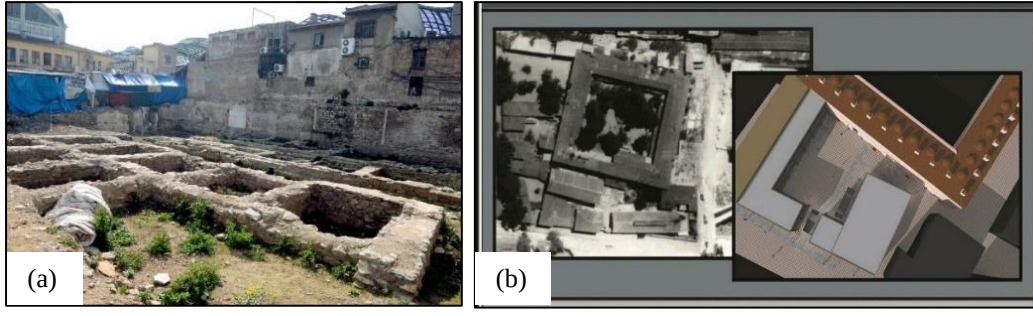


Figure 4.38: (a) Historic ruins of İç Fidan Khan (Url-41)

Figure 4.39: (b) İç Fidan Khan after reconstruction project (Url-42)

Koza Khan was also restored and made available to the tradesmen and the public (Figure 4.40).



Figure 4.40: Koza Khan courtyard (Url-43)

Ulu Çarşı Top Cover, Floor Covering and Landscaping Project: Ulu Cami Street, which is one of the important trade centers in the Khans District, has been renovated to form integrity with the Bazaar. While the façades of 210 shops were renewed within the scope of the project, the bazaar gained a spacious and bright appearance with the roof covering, wooden showcase, wooden-looking rolling shutters and flooring, and the top cover in the area between İpek Khan and Bedesten was renewed (Figures 4.41, 4.42).



Figure 4.41: (a) Ulu Çarşı top cover project (Url-44)

Figure 4.42: (b) Ulu Çarşı floor covering project (Url-44)

In line with the Osmangazi Municipality Strategic Plan decisions, within the scope of protecting the historic and cultural environment; including workplaces in the historic environment that protect the historic urban fabric and will not destroy it, removing unqualified buildings and production facilities from the historic urban fabric, inclusion of traditional trade and accommodation functions in harmony with the historic urban fabric in the conservation plans, together with the housing function, new construction permit, residence permit It is aimed to address the regulations such as parking regulations, parking regulations, etc. in a way that facilitates the maintenance and repair of the historic environment.

With the Atatürk Avenue façade improvement project, which was implemented in 2010, it was aimed to eliminate the irregularity of the signage that would cause visual pollution on the avenue and to achieve a common approach in façade arrangements (Figure 4.43).



Figure 4.43: Atatürk Avenue façade rehabilitation project south silhouette (Bursa Metropolitan Municipality)

Since the traffic density in the center increased considerably in the 2000s, innovations were needed in the city center. In 2012, the Bursa Orhangazi Square and Surrounding Urban Design Project Competition was held to improve the relationship with Atatürk Avenue. However, none of the projects were implemented. In addition, although pedestrianization of the avenue was considered, alternative routes could not be found to connect the north and south of the city due to topography and property problems. In 2013, a tram line was opened between Altıparmak, Heykel and Kent Meydanı in order to reduce the traffic density in the center (Gönül et. al, 2017, p.12).

Another important development in the city center in the 1990s was the opening of Zafer Plaza Shopping Center on the north side of Atatürk Avenue (Figure 4.44). After the fire of 1958, an architectural design competition of the 1990s was held for the transformation and renewal of the area where Retail Stores are located. Faruk Eş and Hayri Anamurluoğlu won the competition. With the project, the construction of which began in 1996, it was planned to contribute to the social and economic development of the trade center (Figure 4.45). The project was designed to remain underground to minimize the visual impact on the historic Urban Fabric surrounding the site (Shakur, et. al, 2014).

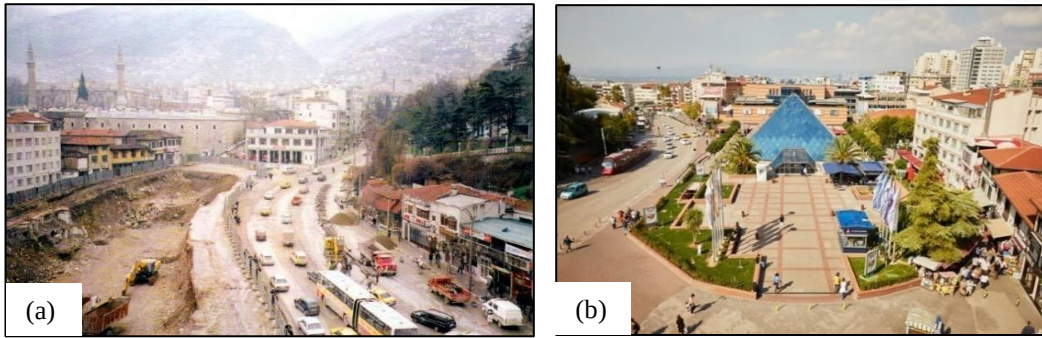


Figure 4.44: (a) While excavating for the Zafer Plaza construction in 1997 (Url-45)

Figure 4.45: (b) View of Zafer Plaza (Url-46)

Competition Projects made in the Khans District

Orhangazi Square and Surrounding Urban Design Project Competition was organized by Bursa Metropolitan Municipality in 2011 (Figure 4.46) and Bursa Khans District Çarşıbaşı Urban Design Project Competition in 2020 (Figure 4.47).

Urban Design Project Competition for Orhangazi Square and Its Surrounding:

The focus of this competition is Orhangazi Square, located in the Historic City Center, in front of Koza Khan, Ulu Mosque, Gazi Orhan Mosque and Historic Municipality Building, and is of great importance in terms of Bursa's historic, touristic, and cultural identity, but has suffered visual and functional deterioration due to the negative effects of time. In accordance with the identity of the Historic City Center, Orhangazi Square and its surrounding is aimed to serve the needs of today's users, within the framework of urban, architectural and landscape design principles.

61 submitted projects were evaluated in the competition, and the project designed by the team consisting of Kadir Uyanık, Doğan Zafer Ertürk-Emel Birer, Ali Kemal Terlemez and Orkan Zeynel Güzelce was chosen as the winner for the first prize.

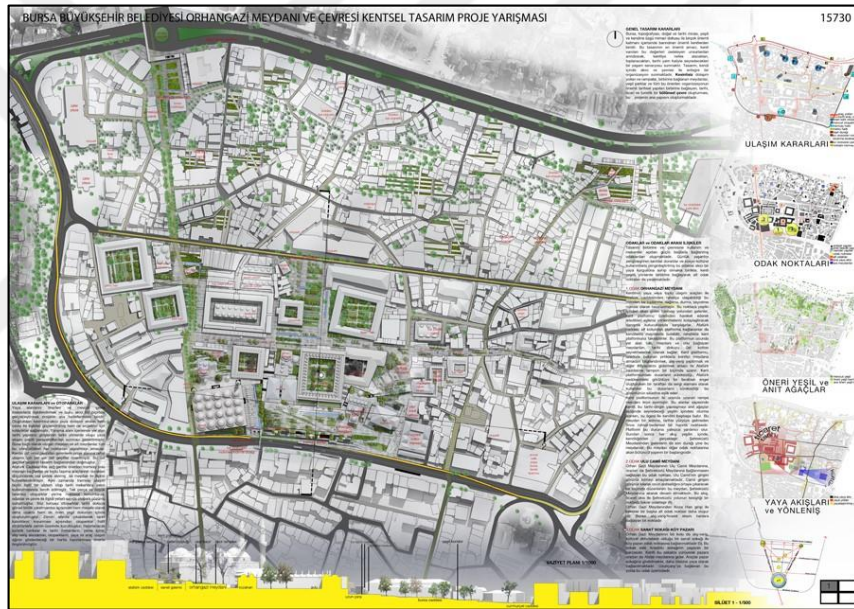


Figure 4.46: 1st Prize, Urban Design Project Competition for Bursa Metropolitan Municipality Orhangazi Square and surrounding (Url-47)

Urban Design Project Competition for Bursa Khans District Çarşıbaşı

The aim of the competition was determined as the evaluation of the design potentials of the area in accordance with the vision of ‘preserving, keeping alive and leaving a legacy to the world, all the tangible and intangible values of the Khans District, Sultan Complexes and Cumalıkızık Village, which bear the traces of establishment as the first capital of the Ottoman Empire.’ In the Urban Design Project Competition for Bursa Khans District Çarşıbaşı, 35 projects were evaluated and the project of Ece Avcı and her team was given the first prize.

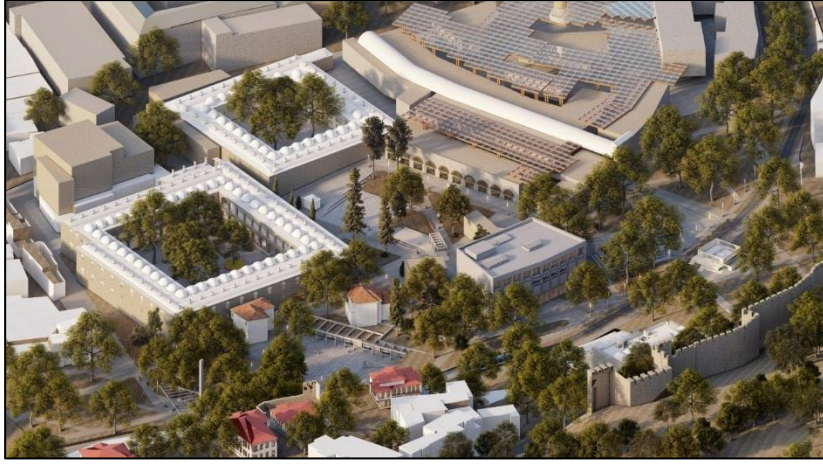


Figure 4.47: 1st prize, Urban Design Project Competition for Bursa Khans District Çarşıbaşı (Url-48)

The effects of the urban transformation project area in the Doğanbey region, located on the northern border of the study area, cannot be ignored. With the urban transformation project that started within the scope of the ‘Bursa Osmangazi Doğanbey Urban Transformation Protocol’ signed by Bursa Metropolitan Municipality and Osmangazi Municipality on 28/11/2006, Doğanbey neighborhood, which transformed from the historical urban fabric into the area of multi-storey TOKİ residences, also included old housing pattern. The neighborhood, where its urban fabric continues to exist, has turned into an urban segregation area (Uzer and Onur, 2023, p. 32).

4.2.2. Urban structure of Bursa in 2018

In this section, the urban structure of Bursa Khans District in 2018 is analyzed under three morphological components as: urban fabric, urban circulation network and land use pattern. In addition, the changes of urban fabric between 1989 and 2018 are examined and put forward.

4.2.2.1. Urban fabric in 2018

The monumental buildings in the Khans District are generally single and two-storied, there are no high-rise buildings. However, due to the high rent values on Atatürk, Cumhuriyet, İnönü and Cemal Nadir Avenues, which are the main arteries of the city, buildings were built with four, five or more floors. Thus, the perceptibility of the city center has weakened (Figure 4.48).



Figure 4.48: Urban fabric of the Khans District in Bursa in 2018 (Redrawn by the author after 2018-dated Map).

The Khans District, which has a historic past based on centuries of trade, small handicrafts, manufacturing, housing, and religious activities, experienced a change in social structure with excessive population movements. Accordingly, collapsed areas began to appear in the region. This change has become especially in Reyhan District; commercial units, small shops and warehouses began to be located in Reyhan, which used to be a residential area. This change had a very negative impact on the city center and caused the region to lose its original character both socio-culturally and physically.

In Bursa, growth outside the city accelerated after the 1990s. In addition, with the development of the cooperative system in this period, the housing production process accelerated and caused the housing pattern to spread to new residential areas outside the city center. In this process, while the Nilüfer region continues to grow rapidly, new alternative centers began to emerge in the city. In addition, many new shopping areas such as shopping malls, supermarkets and construction markets have emerged outside the city. As a result of these developments, the social and economic importance of Atatürk Avenue has decreased. Multi-storey buildings built on Atatürk Avenue continued to be used for office and commercial purposes.

The separation of the Courthouse from the Cumhuriyet Square in 1999 caused the law offices to leave the area as well, resulting in a functional transformation. Since there was no guidance on this issue, workplaces became vacant and lost their functions. This situation has caused a decrease in real estate values in the region. Due to the opening of shopping centers in different parts of the city, the usage density of the city center has decreased, high income groups have withdrawn from this area and commercial use in the area has become unqualified (Polat, 2011, p.228).

Since the Khans District was largely restructured during this period, there was no major change in the cadastral and street pattern. On the south side of Atatürk Avenue, adjacent building pattern dominates, and the existing buildings are mostly 5 or 6 floors above ground level.

With the decisions of the Bursa Preservation Board dated 1989 and 1991, the construction of the Atatürk Subway (1) and the Osmangazi Subway (2) were allowed, and they were included in the plans with their revisions in 2001. While subways make it easier for pedestrians to cross the street, they are also used as markets.



Figure 4.49: Change of urban fabric in the Khans District in Bursa from 1989 to 2018 (through the superposition of 1989 and 2018-dated maps by the author)

Change of urban fabric in the Khans District in Bursa from 1989 to 2018:

According to the data obtained when the 1989-dated map and the most current map which dated 2018 superposed, the changes in the urban fabric are as follows (Figure 4.49):

As it can also be seen on Appendix 4 that the general urban fabric density of the Khans Region has not changed.

In addition, the bazaars in the commercial axis following the Grand Bazaar are covered with a top cover (1) (Figure 4.50).

It has been observed that some commercial buildings have disappeared in the area between the south of Pirinç Khan and the east of the Central Bank (2).

Public open spaces in Orhangazi Square (3), Municipality Garden (4) and Heykel Square (5) continue to be used.



Figure 4.50: Khans District in 2012 (Bursa Governorship Archive)

4.2.2.2. Urban circulation network in 2018

In the period from the 1990s to 2018, pedestrianization of Atatürk Avenue was suggested. However, due to topography and ownership problems, an alternative route connecting the north and south of the city could not be determined. For this reason, a tram line was put into service in 2013 in order to reduce traffic congestion in the center. This line connects Altıparmak, Heykel and City Square (Figure 4.51).

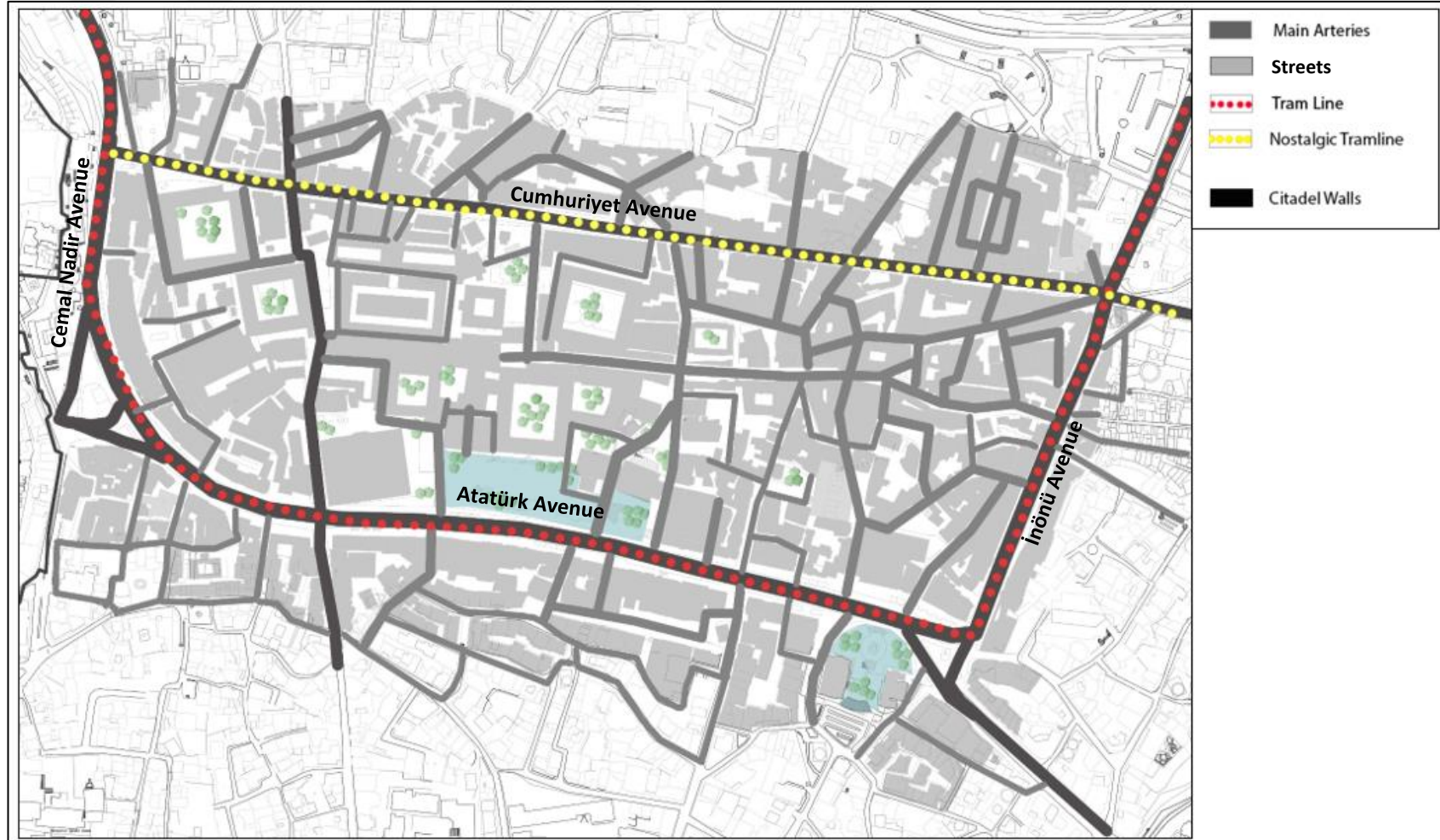


Figure 4.51: Urban circulation network of the Khans District in Bursa in 2018 (Redrawn by the author after 2018-dated Map).

Also, during this period, several projects came to the fore to solve the heavy traffic and transportation problem in the city center, and it was aimed to relieve traffic with ring tram lines, especially on the axis surrounding the historic region. With the Heykel-Garaj tram line prepared by İstanbul Ulaşım Inc., it is expected that pedestrian-prioritized transportation would be provided on this axis where pedestrian and vehicle traffic were the busiest, between Santral Garaj, Darmstadt Avenue, Stadyum Avenue, Altıparmak Avenue, Atatürk Avenue, İnönü Avenue and Uluyol (1) (Figure 4.52). It is aimed to purify the historic region from both exhaust gas pollution and noise pollution by removing the minibuses what causing the highest traffic congestion and rearranging the routes of the buses serving the Heykel Square (Bursa Metropolitan Municipality) (Figure 4.53)



Figure 4.52: Tram line route (Url-49)



Figure 4.53: (a) Bursa silkworm tramline (Url-50)

Figure 4.54: (b) Bursa nostalgic tramline (Url-51)

Cumhuriyet Avenue between Historic Bazaar and Khans District was closed to vehicle traffic in 2011. Vehicle traffic was directed to İnönü Avenue and Haşim İşcan Street, Celal Bayar Avenue and Kıbrıs Şehitleri Street are used as alternative routes. A nostalgic tram project was implemented by Bursa Metropolitan Municipality on Cumhuriyet Avenue (2) (Figure 4.54).

In 1990, Atatürk Avenue traffic became one-way (Figure 4.55).

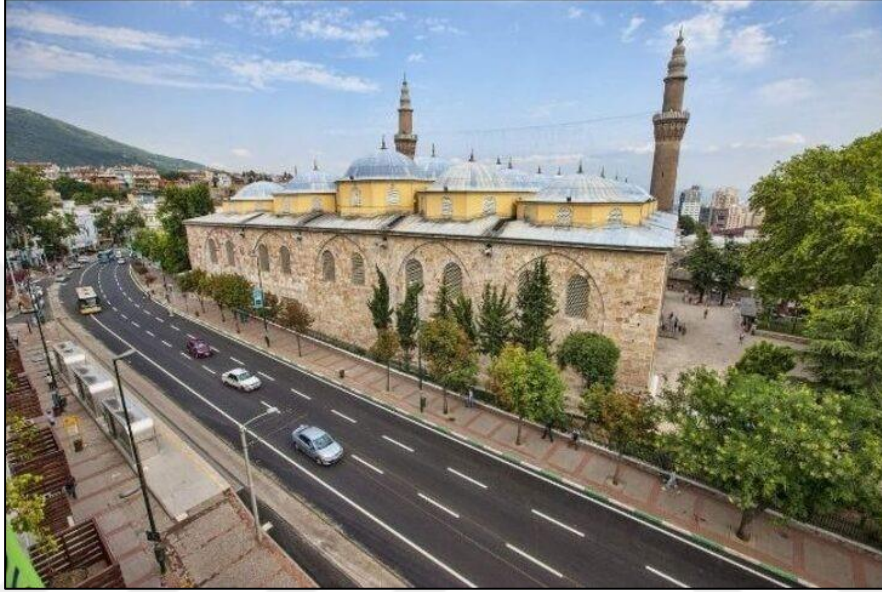


Figure 4.55: General view of Atatürk Avenue in 2018 (Url-52)

4.2.2.3. Land use pattern in 2018

When looked at the map (Figure 4.56), the biggest spatial change of the historic trade center in the 2000s is the covering of Uzun Çarşı with a modern top cover (1). Due to the changing perception of shopping and space in this period, shop owners in the Khans District wanted the space layout to be adapted to their own spaces, as in modern shopping malls. Thus, with the project implemented in 2007, the historic long bazaar axis and the two-sided shops were covered with a top cover that closed the pedestrian circulation, without touching the eaves (Figure 4.57). During the application of this cover, the façades of the rows of shops were also renewed (Vural, 2007, p.303).

In addition, the historical Ertas and Bakircilar Bazaar (2) was covered with a modern wooden and glass roof integrating with the traditional architecture. The floor coverings and façades of the bazaar were also being overhauled. The shutters of the shops were made entirely of wood (Karakılıç, 2008) (Figure 4.58)



Figure 4.56: Land Use Pattern of the Khans District in Bursa in 2018 (Redrawn by the author after 2018-dated Map).

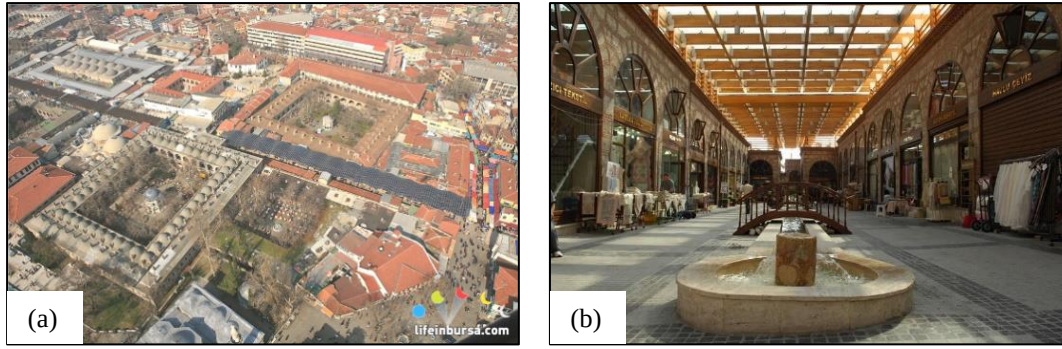


Figure 4.57: (a) Aerial view of the Traditional Bazaar district (Url-53)

Figure 4.58: (b) Historic Ertaş Bazaar, covered with wooden top roof (Url-54)

The restoration process of the Courthouse building located in Government Square which started in 2001 was completed in 2004 and the building was opened for use as the City Museum (3).

Change of land use pattern of the Khans District in Bursa between 1989 and 2018:

According to the data obtained through the superposition of two maps of 1989 and 2018 (Figure 4.59), it is seen that the registered religious, cultural, and governmental buildings in the study area continued their functions.

A few buildings to the south of the Pirinç Khan (1) and to the east of the Çakır Hamam Bath (2) have been destroyed and the areas are seen to be used as a parking area.

The Courthouse building has changed its function as Bursa City Museum (3).



Figure 4.59: Change of land use of the Khans District in Bursa between 1989 and 2018 (through the superposition of 1957 and 1989-dated maps by the author)

5. CONCLUSION

Bursa, one of the capitals of Ottoman Empire, is also one of the important trade centers in the history of the Ottoman Empire and the Turkish Republic. The city continued its development on the east-west axis until the conquest of İstanbul in 1453. The location of the city of Bursa on the Silk Road, being a significant advantage for trade between İstanbul and Central Asia, confirmed its commercial importance and accelerated its development. During the rule of Yıldırım Beyazıt, the spatial arrangements began to change the urban fabric of the city. The most important of these arrangements were the constructions of Ulu Mosque in the central area and the Bedesten opposite the Emir Khan during the rule of Orhan Bey. Thus, a public central space was created in the Khans District, which constituted the historic city center of Bursa, by bringing together complementary functions. The district has maintained its importance with its location at the intersection of raw material, product, and passenger traffic. In addition, the Khans District had a cosmopolitan pattern, just as the different ethnic, religious, and cultural groups living within the Empire in Bursa. While the buildings of the Khans District provided economic function to the city, they also made Bursa a leading world city of the period culturally. Therefore, the Khans District determined as the study area of this thesis can be accepted as the center of the city, considering both its location and functional importance within the city borders.

With this thesis study,

- It is aimed to decipher and reveal the urban morphological changes of the Khans District in the historic city center of Bursa depending on the related cartographic materials starting from the first reliable visual data to the present day, as well as the other written sources to serve as a guide and basis for further studies for this area.
- The historical and architectural development of the Khans District is presented based on inventories such as visual materials, maps and plans, and the formation of the historical urban fabric serves as a guide to be discussed together with its architecture, and the study can be valid for similar settlements.

Within the context of this study, aiming to read and decipher the physical transformation of the Khans District in Bursa through morphological patterns parallel to social, economic and cultural situation of the city, the detailed outcomes at each period are summarized as follows;

Physical, Social, Economic, Cultural Situation in 1862:

Based on the research done through written sources;

- The organic housing pattern, (combination of houses and gardens) reflected the traditional Ottoman character of Bursa. In this period, there was an organic street pattern in and around the Khans District. Bursa's residential areas were shaped around the Sultan's complexes. The ownership pattern consisted of large and small parcels.
- There was a scattered and loose urban fabric towards the periphery of the historic city. Besides, traditional residential quarters determining the macro form of Bursa city were developed around religious buildings such as mosques or masjids parallel to Ottoman settlement characteristics. In addition, the city consisted of open spaces such as agricultural gardens and cemeteries.
- Bursa's urban circulation network in 1862 showed the traditional organic characteristics, where new planning approaches had not yet affected the city together with the emergence of new arteries. The streets of Bursa were irregular and narrow, with many dead-end streets in the urban fabric.
- Saray Avenue (today's Atatürk Avenue) was the main artery of the city for providing an extension to the market district. Narrow streets branched irregularly and organically from the main roads leading to various districts of the city in 1862.

The Khans District in 1862 consisted of major commercial and other public monumental buildings such as;

- The first commercial type was the khans, which were used both for trade and accommodation.
- Bedesten, also known as a covered bazaar building, was the second type of commercial buildings which used to be the center of the Khans District.
- The third type of commercial element in the Khans District was the bazaar which consisted of maze-like streets, containing the market and the shops.
- Mosques, madrasahs, and soup kitchens were the other important public monumental buildings that created and shaped the urban fabric of the Khans District.
- Many public baths connected to the thermal springs were other important monumental buildings in the area.

- Since Bursa had become the center of the province, an administrative complex consisting of Government House and Prison buildings were also located in the Khans District.

Social, Economic, Cultural Situation and Planning Activities in 1909:

According to related sources, the industrial revolution at the beginning of the 19th century brought changes in Ottoman urbanism and architecture as well as in Bursa. Instead of a commercial city center, consisting of building types such as shops, khans and bedestens lined up along an axis, new industrial building types such as factories started emerging, disconnected from each other, and scattered at certain points of the city, due to changes in production techniques and marketing spaces.

Existing khans began to lose their importance because they could not adequately meet the commercial needs of this period. Although this change of building types did not affect the commercial area in the city center much, the Tanzimat reforms, then the Constitutional Monarchies and Westernization movements caused large-scale renewals on the urban scale.

To facilitate urban transportation, avenues connecting all neighborhoods to the center which constitute the main axes of the city today were opened in this period. With the removal of the dead-end streets and the city center gaining new functions, citizenship awareness has emerged, moving beyond the traditional neighborhood scale and beyond being a neighborhood resident.

The Physical Changes Identified between 1862 and 1909 are:

- The building fabric became more concentrated and densified in 1909, especially in the residential areas, no major urban fabric changes were observed in the Khans District. The open bazaars in the area continued their function in the region.
- As seen in the 1909-dated map, the main streets of the city were widened, and the transportation system has been made suitable for motor vehicles in the city.
- During the first administration period of Ahmet Vefik Pasha, Saray Avenue passing through the south of Ulu Mosque was expanded and its name was changed as Hükümet Avenue.
- On the map dated 1880, one of the roads opened in the area dividing the eastern part of the trade center is Gemlik Avenue, today's İnönü Avenue, and on the

1909-dated map, Hamidiye (Cumhuriyet) Avenue, passing through the middle of the center and running on the east-west axis, was opened.

- According to literature sources, it is learnt that during the opening of this axis, Piriñ Khan in the western part, Galle Khan (Tahıl) in the eastern part and many other buildings were damaged. The biggest urban change is identified as the demolition of the building group in the north of the Khans District due to the newly opened Cumhuriyet Avenue, and the residential buildings here being replaced by commercial buildings either by reuse of the same buildings, or by the construction of new buildings.
- In this period, the Municipality, Post Office, and Theater buildings were constructed in the Khans District. During the modernization process, the city center of Bursa, which included religious, commercial, and administrative functions, gained a different quality.
- The main transportation lines, which were opened to meet the commercial needs of the area, disrupted the integrity of the historic urban fabric, and prevented the spread of traditional commercial area towards east direction.

The Physical Changes Identified between 1909 and late 1920s are:

- Buildings such as the Government House, Revenue Office, Courthouse, Tayyare Cinema and Community House (today's Ahmet Vefik Pasha Theatre) were located on Atatürk Avenue. This situation not only added the feature of an administrative center to the region, which used to be a trade center, but also made Atatürk Avenue the most important axis of the city.
- The biggest change seen in the urban fabric is that the sparse building system in the north of Cumhuriyet Avenue became denser.
- In this period, the most striking feature was the opening of new and straight roads within the organic circulation pattern of the Khans District (and the city) and the widening of existing roads to make them suitable for vehicle traffic.
- The primary building group forming the district was the commercial buildings. This was followed by a combination of commercial and accommodation buildings.
- Cumhuriyet Square, created by the construction of the Government House, Courthouse, and Revenue Office with the addition of the Atatürk Monument and Bursa Community Center, was designed as a public open space in Bursa.

- The Municipal Garden which has been used since the Constitutional Period in the first years of the Turkish Republic in Bursa continued its function as a public park.
- While there were rows of buildings in the area between the Ulu Mosque and Orhan Mosque, the Ottoman Bank and a Cinema building were constructed. The surroundings of these buildings served as a public open space.
- Some historic buildings lost their functions in this period (for example, dervish lodges and mosques), some of them were demolished due to road expansions or new requirements.
- It is seen that the street form of Gazi (Atatürk) Avenue, the two and three storied wooden skeleton with mudbrick infill traditional buildings were used as shops and social gathering and gastronomic spaces on the ground floor, while the upper floors were used rented as short-term lodging, used as warehouses, and for housing.

Bursa's first city plan produced by German architect and urban planner Carl Cristoph Lörcher in 1924 could not be fully implemented however, the connection between the trade center and the Citadel entrance was opened as a result of this plan. Due to the problems that arose in the implementation of the Lörcher Plan, the city had to be replanned.

Social, Economic, Cultural Situation and Planning Activities in 1957:

According to related sources, with the Westernization ideology adopted after the establishment of the Turkish Republic, Western architectural styles started to be seen especially in the design of public buildings. Neo-classical façade formations can be seen in the architectural heritage of the city of Bursa. İş Bank building, located opposite Ulu Mosque in the study area, can be given as an example of this.

The Republican ideology aimed to spread modernity in Turkey through architecture brought modern materials, construction knowledge and production, tools, equipment, and technical facilities to the provinces in the country.

In the period from the late 1920s to 1957, both the traces of the First National Architecture Movement and the examples of modern architecture can be seen in the study area.

In his plan, Henri Prost suggested to strengthen the existing axes in the city by taking monumental buildings as the focal points, under the effect of Paris. Linear integrity was sought by continuing the Atatürk Avenue axis towards Yeşil Neighborhood.

The Physical Changes Identified between the late 1920s and 1957 are:

- The most important change identified in this period is the buildings in the south of Atatürk Avenue coming together forming larger building blocks. Likewise, the spaces between the building blocks in the commercial and residential mixed-use area located to the north of Cumhuriyet Avenue decreased.
- The rows of buildings to the west of the Ulu Mosque and Pirinç Khan were demolished because of the road widening works.
- In line with the decisions to expand the roads with the 1940-dated Bursa Master Plan by French architect and urban planner Henri Prost; the section of Atatürk Avenue between Ulu Mosque and Çakır Hamam was expanded.
- On the 1957-dated map, due to these plan decisions, the buildings located in the southwest of Atatürk Avenue were expropriated and the avenue was widened.
- Tayyare Cinema and Bursa Yapı Kredi Bank buildings can be seen as syntheses of traditional architecture and modernism.
- While the Government House, Courthouse, Revenue Office, Post Office, and CHP building represent the First National Architecture Movement, Ziraat Bank, Derman Apartment, the apartment next to the Post Office and the Community Center can be shown as the first examples of modern architecture in the area.
- As a result of Prost Plan decisions, Hükümet Avenue (Atatürk Avenue), located in the south of the trade center, was widened and multi-storey business buildings were constructed along it.
- With the effect of rapidly developing new constructions in the city, the Khans District has become indefinable within the urban fabric. In addition, when these unpredictable dense new constructions obstructed the perception and the emphasis of the important buildings which used to be the foci of these axes, these planned historic axes became undefined.

Social, Economic, Cultural Situation and Planning Activities in 1989:

Based on the research done through written sources, after the fire that occurred in the Grand Bazaar in 1958, the historic city center and the Khans District suffered great destruction. However, a suitable opportunity has emerged for planning both this area and the city. Italian architect and urban planner Luigi Piccinato prepared the Bursa Master Development Plan in 1960 for a more systematic planning of the city. This plan was the most comprehensive work produced until that time. Great importance was given to preserving and revealing the monumental buildings of the city, functional zones were determined by mostly adhering to the axes defined by Prost.

Within the framework of this Plan, while the khan buildings were being rehabilitated and their surroundings were cleaned, it was planned to build new covered bazaar axes with new commercial buildings with modern construction techniques that would complement the urban fabric. Regarding the Khans District, it is emphasized in the Plan that the existing historic buildings should be preserved, and the new buildings should be constructed in accordance with the old traditional features, and the new buildings should only be constructed in the empty lots outside the traditional urban fabric. Piccinato also stated that there may be parts where there was a lack of documentation for the reconstruction of demolished buildings, and he also gave importance to making repairs appropriate to the historic buildings. However, the Plan decisions regarding the protection of the Khans District were limited and were not detailed in the Plan. Although the project described the building masses and areas well and has positive integrity, the negative features of the Plan were that it too closely intertwined pedestrian and vehicular traffic and devoted too much space to vehicles and parking areas.

In the Bursa Development Plan made in 1976, a decision was made regarding historic buildings for the first time. It was stated that the historic city center should be protected from heavy vehicle traffic and incompatible new constructions with the historic urban fabric. For this purpose, it is planned to move the new trade center to the center of Reyhan neighborhood. However, with this decision, the historic traditional housing pattern in the Reyhan District has been destroyed. The old traditional residential buildings in Reyhan District's organic urban fabric, have been reused for commercial purposes and the historic fabric of the region has changed rapidly over time. For this reason, this plan prepared in 1976, destroyed another historic urban and architectural value of the city to protect the historic city center around the Khans District. 1976 Plan

could not definitely bring an approach that holistically preserved the unity of the commercial and residential fabric of the center.

In the 1978-dated Bursa Development Plan, historic, natural, and archaeological areas were identified, and decided to be protected. Depending on the planning studies and regarding the protection decisions of the historic city center, the Supreme Council of Real Estate, Antiquities and Monuments decided to move the historic commercial center to the north in 1979. It was stated that to protect and sustain the historic urban fabric, the conservation projects prepared by the Ministry of Culture and Bursa Municipality and approved by the Preservation Board should be implemented. The Bursa Revised Master Development Plan prepared in 1984, used the definition of 'new commercial center' for the Reyhan and Kayhan Districts. It was stated that the traditional housing pattern here has been damaged due to the new constructions or inappropriate destructive reuse of traditional residential buildings. In addition, the plan emphasized the necessity of a conservation plan for Bursa's historic commercial center to sustain its original qualities.

Despite all these decisions, changes and deformations in the Khans District could not be prevented. New implementations that caused large-scale changes in the area continued, and the functional changes with the effect of spatial changes caused the severe damage of the major historic monumental buildings (such as khans and baths), which constitute the historic commercial center of Bursa. On the other hand, the new spatial needs required by the changing trade brought incompatible new functions to the monumental buildings. These buildings, the symbols of the traditional commercial function in the District, have lost their usability and legibility in the area over time. This situation necessitated a conservation plan for the region, and a new conservation plan was prepared for Bursa City Center in 1988. In this plan, the problems experienced regarding the rehabilitation, protection and renewal of the area were; the density of vehicle circulation within the center, the deficiencies in service and the green areas. In addition, problems related to the area such as the incompatibility of the new buildings along İnönü Avenue and Cumhuriyet Avenue with the historic urban pattern, the incompatibility of needs such as new parking lots and service areas due to heavy vehicle traffic, the lack of green areas in the city center and problems in the use of empty areas have been identified. In addition, in the plan report, it was stated that the unique historic characteristics in the Khans District should be preserved, their renovation and maintenance should be carried out, the unused buildings should be

revitalized by giving them new functions, and their physical and economic protection should be ensured. The Reyhan-Kayhan and Khans District Protection Plan, prepared within the scope of the Bursa Central Conservation Project dated 1989, was approved by the Bursa Cultural and Natural Heritage Preservation Board (BKTVKK) in 1991. The decisions taken on the preservation of the Khans District began to be implemented in 1991 and were added to the implementation decisions after the revisions made in the prepared city plans. However, the applications were limited to the urban scale. The repairs carried out for the continuity of the historic city center, mostly consisted of architectural maintenance repair and reuse works. Solutions could not be produced at the environmental scale in between urban scale and building scale. The increase of industrialization in Bursa causing more migration and increasing population, caused changes in the historic urban fabric of Bursa.

The Physical Changes Identified between 1957 and 1989 are:

- A building group in adjacent order is seen to occur at the junction of Cemal Nadir Avenue and Atatürk Avenue, which formed the western and southern borders of the Khans District, creating a wall effect. The sparse urban fabric here is seen to become denser blocking the western entrance of the Khans District with buildings such as the Central Bank.
- The area where the banks, gas stations and shops were located to the south of the Ulu Mosque was rearranged and designed as Orhangazi Square and started to be used as a public open space.
- The streets have come to the fore in public life when the importance of recreation areas as public outdoor spaces has decreased. During this period, Atatürk Avenue, State Theater (previously Marmara Cinema), Tayyare Cinema, Saray Cinema, and other social buildings were popular. Spending time between Setbaşı and the Post Office has become the most important social activity.
- The Government House, Municipality, and Courthouse, built in the 19th century, maintained their importance in this period as well.
- Multi-storey apartment buildings formed the character of Bursa Atatürk Avenue after 1965. Instead of two or three-storied wooden, detached

traditional houses on Atatürk Avenue, apartment and office buildings with their new materials and techniques, reflected the power of the modern period.

- With the expropriations, some new streets were opened, existing ones were widened, and some were cancelled while remaining within the building blocks.
- In this period, small workshops in the Khans District were replaced by the units where wholesale and retail trade were carried out. Bursa Chamber of Industry and Commerce (Bursa Sanayi ve Ticaret Odası) building constructed in the open area between Fidan Khan and Geyve Khan, Gökçen Business Center, Doruk Bazaar and United Onur Bazaar were constructed on Cumhuriyet Avenue.
- In the period between 1950 and 1980, new public outdoor spaces were not created in Bursa due to the political and economic problems in Turkey. Investments in transportation, industry, and housing, as well as the ones for the use of Cumhuriyet Square as a public outdoor space continued.

The Physical Changes Identified between 1989 and 2018 are:

- The density of urban fabric has not changed between 1989 and 2018. The Khans District, loaded with multiple functions such as; commercial, small handicrafts, manufacturing, housing, and religious activities, experienced a change in social structure with excessive population fluctuations. Accordingly, severely damaged areas began to appear in the District.
- As a result of the removal of the Courthouse from Cumhuriyet Square in 1999, the law offices in the area began to disappear, leading to a functional transformation.
- The opening of new shopping centers in the city has reduced the usage density of the city center and the Khans District keeping the high-income groups away from this area.
- The bazaars in the commercial axis following the Grand Bazaar were covered with a top cover.
- Commercial stores, small shops and warehouses began to appear in Reyhan District, which used to be a residential area. This change had a very negative impact on the commercial city center and the Khans District causing the region to lose its original character both physically and socio-culturally.

- With the advent of Heykel-Garaj tram line, a pedestrian-prioritized transportation was expected to be provided on this axis.
- Cumhuriyet Avenue was closed to vehicle traffic in 2011. A nostalgic tram project was implemented by Bursa Metropolitan Municipality on Cumhuriyet Avenue.
- Between 1990 and 2018, many project proposals were made to reduce traffic congestion in the city center, but none of them could be implemented. Various competition projects were organized, and studies were done to reveal the potential of the area and increase its vitality.
- The Courthouse building was reused and opened for visit as the City Museum in 2004.

With this thesis study, it is aimed to be an example of the analysis type and to create a guide that will be the basis for creating both new building proposals and urban conservation and rehabilitation projects that can be taken as an urban and architectural reference in the development plan of the city to which it belongs, thus contributing to the creation of more qualified urban environments as a whole.

In addition, it is aimed that the thesis study will serve as a guide for architects, urban planners, and municipal planning departments regarding urban and architectural interventions.

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APPENDICES

Figure Appendix 1: Aerial photo of the Khans District in 1939 (Bursa Metropolitan Municipality)

Figure Appendix 2: Aerial photo of the Khans District in 1969 (General Command of Cartography)

Figure Appendix 3: Aerial photo of the Khans District in 1996 (Bursa Metropolitan Municipality)

Figure Appendix 4: Aerial photo of the Khans District in 2016 (Bursa Metropolitan Municipality)



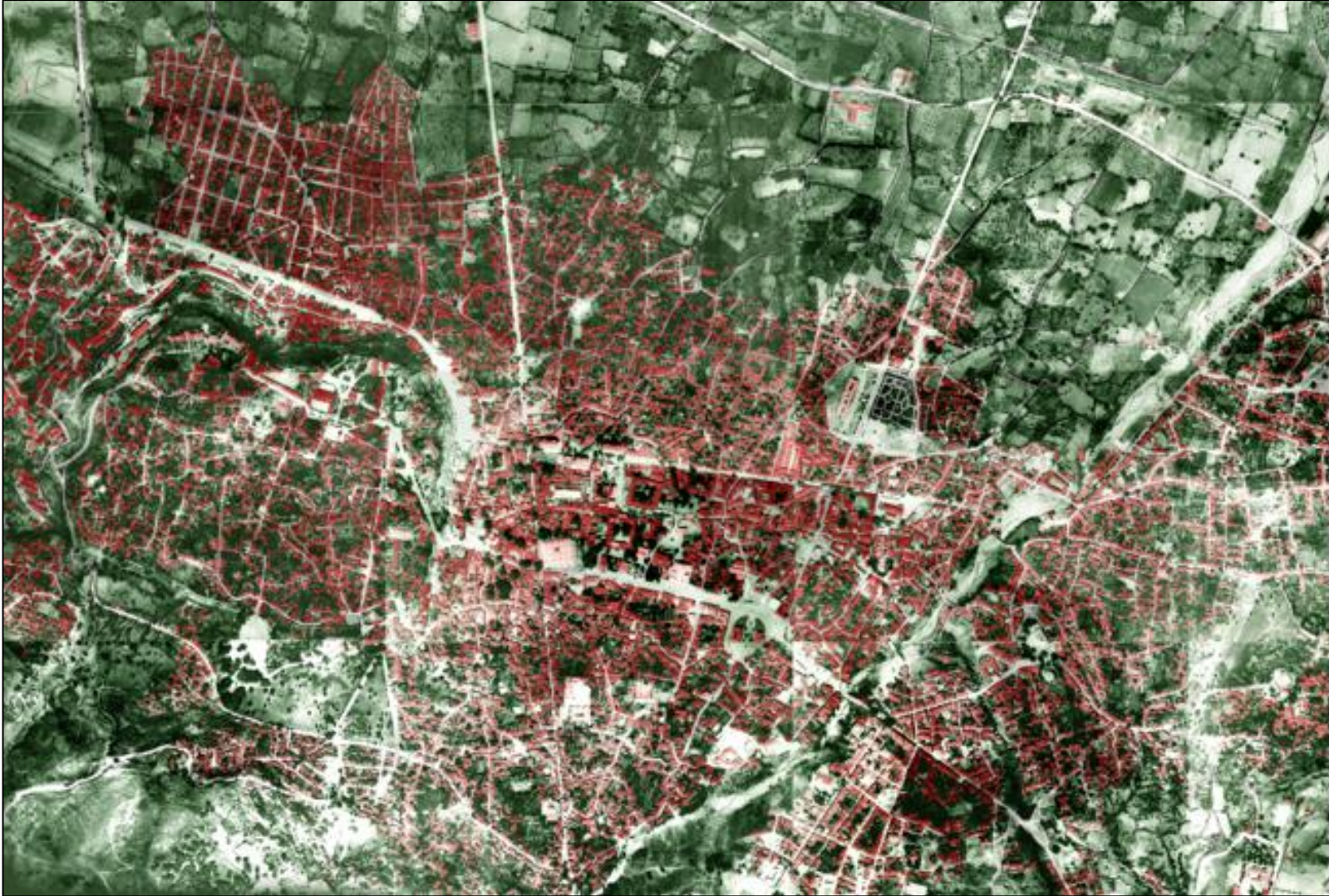


Figure Appendix 1: Aerial photo of the Khans District in 1939 (Bursa Metropolitan Municipality)



Figure Appendix 2: Aerial photo of the Khans District in 1969 (General Command of Cartography)



Figure Appendix 3: Aerial photo of the Khans District in 1996 (Bursa Metropolitan Municipality)



Figure Appendix 4: Aerial photo of the Khans District in 2016 (Bursa Metropolitan Municipality)

