SİVAS RAILWAY DISTRICT AS INDUSTRIAL HERITAGE AND ITS POTENTIAL IN THE REGENERATION OF THE CITY CENTER

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submitted by **EREN CAN KEPENEK** in partial fulfillment of the requirements for the degree of **Master of Science in Architecture, Middle East Technical University** by,

Prof. Dr. Halil Kalıpçılar
Dean, Graduate School of **Natural and Applied Sciences** _____

Prof. Dr. Fatma Cânâ Bilsel
Head of the Department, **Architecture** _____

Prof. Dr. Fatma Cânâ Bilsel
Supervisor, **Architecture, METU** _____

Examining Committee Members:

Prof. Dr. Tomris Elvan Altan
AH, METU _____

Prof. Dr. Fatma Cânâ Bilsel
Architecture, METU _____

Prof. Dr. Mehmet Adnan Barlas
City and Regional Planning, METU _____

Assoc. Prof. Dr. Ela Alanyalı Aral.
Architecture, METU. _____

Prof. Dr. Mustafa Halim Perçin
Landscape Architecture, Ankara University _____

Date: 20.01.2020

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.

Name, Last name : Eren Can, Kepenek

Signature :

ABSTRACT

SİVAS RAILWAY DISTRICT AS INDUSTRIAL HERITAGE AND ITS POTENTIAL IN THE REGENERATION OF THE CITY CENTER

Kepenek, Eren Can
Master of Architecture, Architecture
Supervisor : Prof. Dr. Fatma Cânâ Bilsel

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Sivas Cer Atölyesi (Railway Repair Shop) and the creation of the railway campus are the most decisive factors that marked the Republican modernizationin Sivas that began with the inclusion in the city in the railway transportation network.

This thesis studies the place of *Sivas Cer Atölyesi* and Sivas railway campuses as a part of the industrial heritage and railway heritage of the country. Following a historical research and interviews conducted to figure out the place that this heritage takes in the collective memory of the citizens, the study aims to reveal the values, obsolescences, and potentials of the industrial zone and railway structures within the scope of industrial heritage. Therefore, as a reference for the studies to be conducted for the conservation and development of the railway campus, a holistic assessment framework was developed. In the study, the historical development, architectural and spatial characteristics of the railway campus and its buildings and, the spatial, mental, and social dimensions of this heritage are examined. An oral history study was conducted through semi-structured interviews with people who have been in contact with these campuses during a period of their lives. Finally, based on the

assessment of values, the potentials of the railway campus in the future regeneration of the city are discussed.

Keywords: Railway Heritage, Collective Memory, Conservation of Memory Places, Urban Regeneration/Revitalization, Sivas Railway District

ÖZ

ENDÜSTRİ MİRASI OLARAK SİVAS DEMİRYOLU YERLEŞKESİ VE KENT MERKEZİNİN YENİLEŞMESİNE OLASI KATKISI

Kepenek, Eren Can
Yüksek Lisans, Mimarlık
Tez Yöneticisi: Prof. Dr. Fatma Cânâ Bilsel

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Cumhuriyet dönemi ulaşım sisteminin ve demiryolu endüstrisinin önemli bileşenlerinden olan Sivas Cer Atölyesi ve demiryolu alanlarının varlığı, Sivas'ın demiryolu ulaşım ağına dahil edilmesiyle kentte başlayan ve devam eden Cumhuriyet dönemi modernleşmesine damga vuran en önemli unsurlardır.

Bu tez çalışması, Sivas Cer Atölyesi ve Demiryolu yerleşkesinin ülkenin endüstri mirası ve demiryolu mirası içindeki yerlerinin tanımlanmasına odaklanmakta ve toplumsal bellek çerçevesinde yürütülecek bir tarihsel araştırmayı içermektedir. Çalışmanın amacı ise, demiryolu yerleşkesi ve yapılarının sahip olduğu değerleri, ve yetersizlikleri belirlemek ve potansiyeli ortaya koymaktır. Bu amaç doğrultusunda, kentte bu yerleşkenin korunması ve geliştirilmesine yönelik yürütülecek çalışmalar için bütüncül bir değerlendirme çerçevesi oluşturulmuştur. Çalışmada, yerleşke ve yapılarının tarihsel gelişimi, mimari ve mekansal özellikleri incelenmiştir. Buna ek olarak, yerleşkelerin kentsel mekândaki varlığı, kent gelişimine etkisi ve kent ile ilişkisinin mekânsal, zihinsel ve sosyal boyutları incelenmiştir.

Kentin geçmiş yüzyıldaki toplumsal gelişimine en çok etki eden faktörlerden biri demiryolu endüstrisi ve yerleşkesi olmuştur. Bu nedenle, bu yerleşkenin toplumsal

düzenin şekillenmesindeki etkileri ve kentliler için ne ifade ettiği gibi sorular ise kolektif bellek kuramları üzerinden ele alınmıştır. Bu amaçla, hayatlarının bir döneminde bu yerleşkeler ile teması olan kişiler ile gerçekleştirilen mülakatlar aracılığıyla sözlü tarih çalışması yürütülmüştür. Çalışmanın sonucunda Sivas demiryolu yerleşkesinin sahip olduğu değerler ve kent merkezinin yenileşmesi ve canlanmasına yönelik potansiyeli tartışılmaktadır.

Anahtar Kelimeler: Demiryolu Mirası, Toplumsal bellek, Anı Mekanlarının Korunması, Kentsel Yenileşme ve Canlandırma, Sivas Demiryolu Alanı

"Yaşamak görevdir bu yangın yerinde, Yaşamak, insan kalarak!"

To the ones living *with hope, with love, with dream*: to my family…

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LIST OF ABBREVIATIONS

ABBREVIATIONS

CBA	The Council for British Archeology
ELMS	Eskişehir Lokomotif ve Motor Sanayii Müessesesi
ICOMOS	International Council on Monuments and Sites
SİDEMAS	Sivas Demiryolu Makinaları Sanayii Müessesesi
TCDD	Türkiye Cumhuriyeti Devlet Demiryolları
TÜDEMSAŞ	Türkiye Demiryolu Makinaları Sanayii A.Ş.
TÜLOMSAŞ	Türkiye Lokomotif ve Motor Sanayii A.Ş.
TÜVASAŞ	Türkiye Vagon Sanayii A.Ş

CHAPTER 1

INTRODUCTION

1.1 Problem Context

Sivas Railway has been one of the most significant achievements of the modernization and industrialization policies of the Early Republican era. The construction of the railway to Sivas was an essential step of in the objective of "weaving the motherland all around with railways" in a decade after the foundation of the Republic of Turkey. Sivas has been a remarkable crossroads on the railway transportation network since 1930 due to its location at the intersection of south-north and east-west railway axes in Anatolia. The Railway Repair Shop (*Cer Atelyesi*) was put into operation in 1939 in Sivas as one of the prized investments of the railway industry in order to ensure the efficiency and maintenance of the national railway system.



Figure 1.1 Location of Sivas in Anatolia

The introduction of an efficient transportation system and national industry, which provided access to all parts of the country, was the leading force behind the development of Anatolian cities and the creation of a society of ideal Republican citizens. Through the transportation system, the progressive ideas of the Republic spread promptly in Anatolia. The industrial activities, on the other hand, played a major role in the transformation of the traditional lifestyle of the society. The Railway was the most functional tool in the newly established Republic's goal of modernization.

Social and spatial changes that occurred in Sivas during the twentieth century were directly related to modernization policies, including the establishment of the Sivas Railway. Until the 1930s, traces of Seljuks' fortification was a threshold for the development of Sivas city center. The city center almost did not spread beyond its historical core. That situation began to change when the Sivas Railway district was established in the region called Kayseri Gate in the south-west of this fortification. In other words, the Sivas Railway district was positioned precisely on the periphery of the city of that day.

In time, the city started to develop in the south-west direction with the construction of other spaces related to the Railway and the rise of new residential settlements with the attraction effect of the Railway. So, it can be claimed that the urbanization of the Sivas city began with the Republican period.

Railway, which has become the symbol of the progressivism of the Republic for Sivas, has led to the experiencing of a modern urbanization practice in Sivas' old city center. That transformation has gradually accelerated over time, so the influence of the Railway and the development of the railway industry has shaped today's urban environment. Today, the Railway district is entirely trapped at a point that can be recognized as the almost geometric center of Sivas city center (Figure 1.2).



Figure 1.2 The location of the Railway District in Sivas city center



Figure 1.3 Directions to the neighboring cities

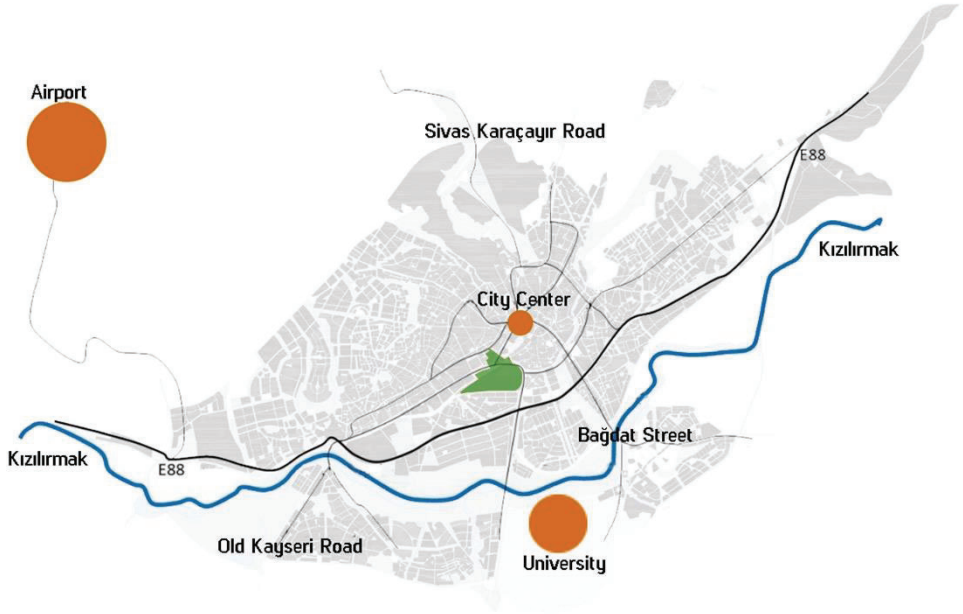


Figure 1.4. Airport (1957) and University (1974)

The spatial alterations in the urban environment cause changes in the dynamic of social relations. The spaces of the modern Republic have been the stages where the inhabitants experienced new life practices. After the arrival of the railway, everyday life experiences in the urban spaces, personal spaces, and working spaces of the urban inhabitants began to change. The arrival of the railway and the introduction of the railway industry guided the experience of modernization in Sivas. Especially the development of the railway industry in the city enabled the creation of a spatial context in which modern individuals experienced the processes of individuation and socialization. The railway has played a leading role in the construction of a new memory and culture. Therefore, it still holds an essential place in the collective memories of the society. It can further be argued that the railway has been one of the most influential factors in the formation of today's public sphere in Sivas. In other words, the railway has been the most effective generative tool in the experience of modernity that provided the economic, social, and spatial transformations in the city.

The Sivas Railway district has been the subject of various controversies on the agenda of the city for years. Sivas, once referred to as a railway city, has begun to lose its function in the recent years. Nowadays, due to the developments in high-speed railroads and the state of the railway industry, these controversies intensified. Thence, it is clear that the Railway will have a role in shaping the future of the city just as it did in the past.

One of the prominent issues that occupy today's city agenda today is that concerning TÜDEMSAŞ, the railways company. Although TÜDEMSAŞ maintains its industrial function today, it has a weakened position, compared with its' first period. The locomotive factory of Sivas has lost the unique position that it had in the railway industry in Turkey. Today only certain mechanical parts are being produced in the TÜDEMSAŞ factory. According to the legislative regulation published in the Official Gazette on 27 October 2019, the production of various technical materials under the responsibility of TÜDEMSAŞ in the new organization chart will be carried out with railway factories in other cities. The questions regarding the future of TÜDEMSAŞ have increased with the legal regulations made on the railway industry. The closure of the factory has been brought to the agenda due to a process that could be defined as functional obsolescence through the published regulation.

Another issue on the urban agenda of Sivas is the construction of the high-speed railway and its new stations. After the construction of the infrastructure of the high-speed railway, it was planned to build two train stations in the city. According to the project, while one of them will be positioned next to the existing train station, the other will be located in the university district near Kızılırmak River. Moreover, an urban design project is also being developed for the banks of the Kızılırmak River. Through this project, it is aimed to bring an approach to Kızılırmak and its surroundings from the upper scale. In order to better understand the context of the issues, it is essential to look at the current spatial and social situation of the city.

In recent years, while the residential areas of the city of Sivas have been fringed towards the periphery, the city center has lost its function gradually. After 2002 the

neo-liberal policies of the government in Turkey had caused the start of the construction boom. The transformations in Sivas' urban space are directly related to that situation in the country. Up to this date, Kızılırmak River, which served as a threshold for urban sprawl in Sivas, has been crossed. In the zones at the periphery of the city, new sub-centers, which are unplanned and without publicness, have started to develop. In previous years, the user profile of the historical city center consisted of people from every walk of life. The publicness created and developed by the railway district in Sivas city center has continued for many years since it was first settled. However, it has lost that function recently. At the same time, today, a particular part of the inhabitants has moved away from the city center. Therefore, although the existing city center maintains its vitality, it is far from being a public space used by all parts of the community. In a way, this causes the social groups to separate from each other in space. Therefore, the city may become a spatially disintegrated-disorganized place over time.

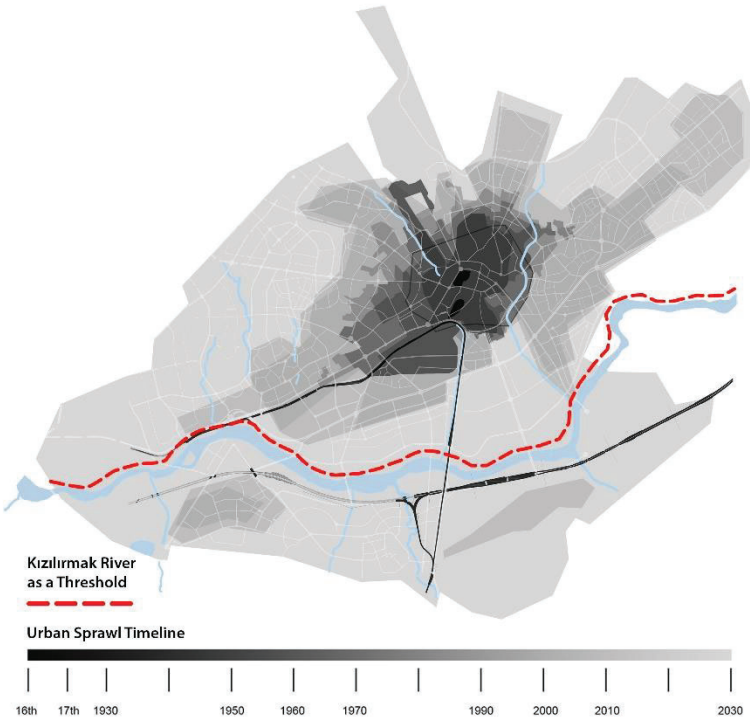


Figure 1.5 Kızılırmak River was a threshold for urban development until 2002

It is clear that the high-speed railway and the Kızılırmak Urban Design project will have a profound impact on the urban environment. The social and spatial contexts of the transformation that started in the city after 1930 are quite different from the present situation. The society, modernized by the Republic's gains, was naturally affected by the country's political, economic, and social changes. This transformation process, which started in the 1980s, accelerated after 2002. Therefore, the spatial effects of the high-speed railway line on the urban environment will have a different impact from that of the development process in the 1930s. As a result, while it is possible that new problems might emerge in the city, on the other hand, it is also possible that there will be positive developments in the city by directing the transformation process. Those issues on the agenda of Sivas can be eliminated through Sivas Railway. That can even be turned into an opportunity.

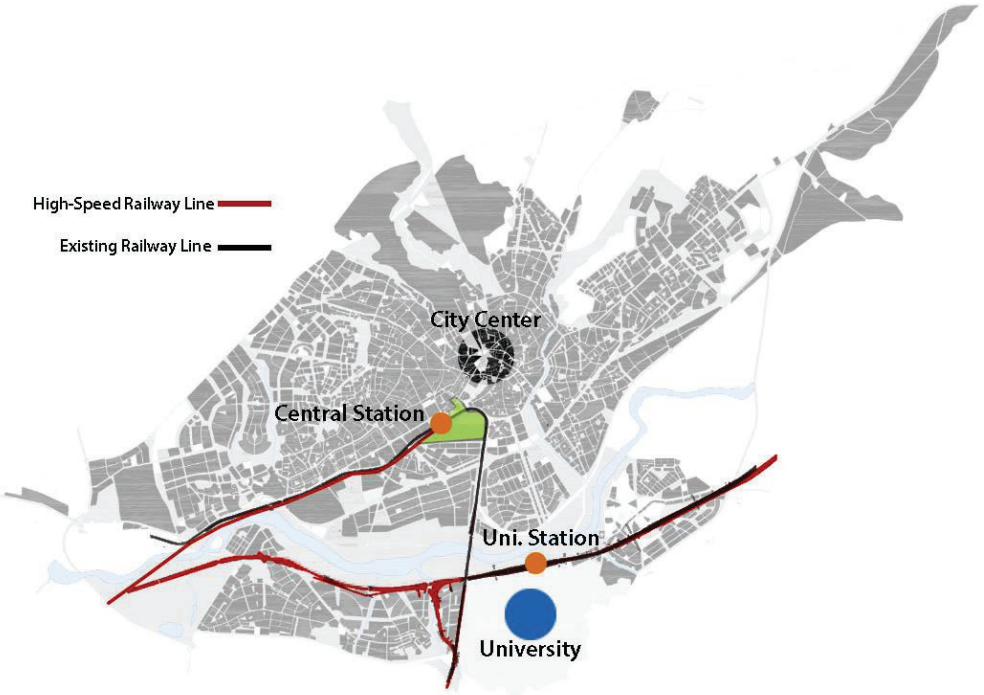


Figure 1.6 Locations of the new stations for high-speed railways

(Related info obtained from TCDD Archive)

Although no transformation projects have been proposed for the Railway district yet, ideas concerning the future of this area are frequently expressed in the press and the discussions are on the agenda of the city. The presence of the existing Railway district is a significant question mark in the transformation process that may occur in the city under the influence of the high-speed railway. There is uncertainty about the future of the urban environment. Therefore, given the current affairs about the high-speed railway and TÜDEMSAŞ, it is vital to answer the question of the future of the Railway district and that of the railway industry, and the possible impacts of this on the urban sphere of Sivas, which has a crucial role in the city's history.

1.2 Scope, Aim and the Structure of the Thesis

The Railway is likely to undergo a process of transformation in the near future. Converting this process into an unqualified transformation or a destructive urban renewal project can result in a significant loss for the city. The Sivas Railway is one of the most valuable symbols of the ideology and progressive policies of the Republic. The industry, transportation, and social facilities make the railway area in Sivas a significant example of railway heritage. Today, the railway structures have locational and functional obsolescence problems but also have social, physical, economic values in the context of railway heritage. Therefore, it is necessary to conduct a study on the condition of the area in order to determine the prospects for the future of the railway and the related industrial production in Sivas.

The necessity of conservation of Sivas Railway District is based on the meaning it expresses for the society. The railway area has profound meanings in Sivas, as well as in the heritage of the Republic. Until the construction of Railway settlements, an ordinary Anatolian city became an industrial city. Railway directed Sivas' urbanization process; moreover made it possible to rebuild all the social dynamics

of Sivas. It has somehow affected the life of the entire population living in the city. In that context, the place of the Sivas Railway District in the collective memories of the recent past of the citizens is unique. For this reason, these campuses should be preserved, and the values they include should be carried into the future.

The citizens frequently express thoughts about the future of the Sivas Railway District. Also, the sensitivity of the people of Sivas about the railway settlements is frequently discussed in the local press ("TÜDEMSAŞ Sivaslıların Kırmızı Çizgisidir," 2019). Issues discussed in the agenda of the city were also brought to the agenda of the country by various civil society organizations and politicians. It is frequently emphasized in these discussions that Railway Settlements is one of the most sensitive issues for Sivas ("TÜDEMSAŞ Gerginliği," 2019).

Besides, the values of the Railway District in the context of collective memories are frequently highlighted in the print and visual media: the 26th issue of the *Hayat Ağacı* magazine published by Sivas Governorate was specially prepared for Sivas Railway Repair Shop, and comprehensive explanations about the importance of the railway area were presented by the locals (Hayat Ağacı Dergisi, 2014); Farımaz (2013) emphasizes the symbolic value of Sivas Railway Repair Shop in an article he wrote; In the article from *Sivas Postası* called "*Sivas'ın 'Atelye'li Yılları*", the effect of Railway on city life is explained in detail ("Sivas' ın 'Atelye' li Yılları," 2013).

In the light of this data, the necessity of preserving Sivas Railway district is not only justified with concerns about the built environment, but also with concerns in social contexts, directly related to collective memories.

The main objective of this thesis is to create a framework for the future of the Sivas Railway District by taking into account the background of the site and its relationship with the urban atmosphere. A research was conducted to determine how to carry the railway area forward into the future, which has an important place in the growth and modernization history of Sivas and the country and has a crucial role in terms of social history and collective memory.

In this thesis, the Sivas Railway district is approached from the framework of the railway heritage. In order to create an approach to the regeneration of the railway area, the urban dynamics of the city of Sivas are evaluated. Therefore, this assessment provided data on the spatial and social dimensions of its relationship with the city. These data allowed the perception of the extent to which the railroad as part of the city created alterations in spatial, social, cultural, and economic patterns in Sivas. That helped to achieve a perspective for the determination of the main concerns for the principles that are established to be for possible conservation and regeneration of the Railway district.

The thesis consists of five main chapters. After the introduction, the thesis starts with a discussion on industrialization and its role in the societal modernization in Chapter 2. The effect of this transformation on the process of urbanization both in the world and in Turkey is evaluated as well. In order to understand the reasons for the creation of the railway campuses, a general framework for the industrialization experience in Turkey is introduced. In the last part of the chapter, based on a review of the concept of railway heritage, an assessment is made concerning what kind of campuses and structures should be regarded in the context of cultural and railway heritage. Finally, the processes in the procedure of the re-programming of the sites possessing the quality of being a railway heritage are mentioned.

In Chapter 3, the main focus is on the citizens' memories about the railway heritage in Sivas and their experiences of socialization and individualization. First, the concept of memory is defined, and an evaluation is provided regarding the contexts in which this concept is addressed. After that, processes of memory production effective in shaping societies and individuals are discussed. Henceforth, the concept of collective memory firstly conceptualized by Maurice Halbwachs and the extensions brought to this concept are discussed. The dynamics of the relationship between place and individuals are defined. The concepts of rituals, monuments that generate collectivism, and the processes of the formation of the public sphere are evaluated.

In Chapter 4, the main focus is on the Sivas Railway district, which forms campus where the railway structures and industrial buildings are located. Firstly, a comprehensive historical urban geography survey is conducted concerning the historical background of the geography where the Sivas railway buildings was founded. The spatial transformations of the city of Sivas underwent until the present day, and its current status is analyzed. The research is conducted on the campuses that constitute the Sivas railway area. In the light of the obtained data, the generative effect of the railway in the urbanization process of Sivas is defined. A study is carried out to determine the value of the urban space, where the socialization and individuation of the inhabitants took place, as reflected in people's memories. In the light of this data, values, threats, and potentials that the Sivas Railway possesses as a railway heritage site are determined. A discussion is carried out to provide a conceptual framework for the possible transformation projects in which the railway would remain. At the end of these inquiries, the criteria for the revitalization of the Railway district is decided. Accordingly, considering the current problems of the city and its relationship with the railway area, discussions are carried out to determine the applications that may be suitable for carrying the values of this industrial heritage area into the future. As a result, two different adaptive re-use proposals are developed for the Railway Campus.

In Chapter 5, a brief clarification of the current situation of the Sivas Railway district is provided. The conclusions of the studies provided in the thesis are summarized. An overview of the proposals regarding the future of The Railway is presented. And finally, the main concerns are defined for future studies.

1.3 Research Methodology

In trying to analyze the Sivas Railway settlements in terms of urbanization, collective memory, and architectural features, the research is conducted first to collect written

documents (professional journals, newspapers, official reports), architectural documents (project plans, site plans, etc.), cartographic documents (development plans/decisions and land use), oral history surveys (in-depth interviews), and to make on-site observations.

The documents used as the foremost reference source for the study were mostly found from the archives of TCDD, TCDD Sivas 4th Regional Directorate, TÜDEMSAŞ, Sivas Regional Directorate of Conservation Council of Cultural and Natural Property, Sivas Municipality and Bank of Provinces.

The process of collecting the documents claimed for the study has been started by applying to the TCDD 4th Regional Directorate and TÜDEMSAŞ organizations. Firstly, sources such as the founding date of the Sivas Railway Company, legal arrangements, and architectural schemes were requested. However, these data could not be obtained from these institutions. According to the data collected from the oral interviews conducted in the institutions, the archives of these institutions were severely damaged due to a flood in Sivas in the 1970s. The architectural project department within TÜDEMSAŞ helped to provide the current site plan of the factory campus and architectural projects of the buildings still standing. The site plan contains data such as the years of construction of the campus buildings, the construction technique of the buildings, the floor heights, and the floor area of certain buildings. The press office of the institution provided architectural models prepared during the first years of the settlement, photographs from the foundation period, and photographs taken from the factory area at different times within the last 50 years.

Then, from the Sivas Regional Directorate of Conservation Council of Cultural and Natural Property, worker housing, hospital building, and station building restitution projects belonging to TCDD have been provided. Besides, the site plan of Sivas Railway Repair Shops site plan dated 1977 and the site plan of Sivas Station settlements dated 1966, obtained from there.

The archives of the institutions are inadequate and weak in terms of documentation. The site plans of the settlements and the architectural projects of the buildings

achieved from the institutions are valuable to find out the changes that took place in the spatial layout of the settlements. Hence, the data collected are highly valuable in terms of analyzes and examinations to be performed in the field.

In addition to these documents, some of the essential data about the Sivas Railway Repair Shop were obtained from *Demiryol Dergisi* (Journal of Railways) archive regularly published by TCDD since 1929.

In the archive of *Demiryol Dergisi* specific topics such as published scientific studies and current technological developments in the railway industry, news about the TCDD institution, articles about the factories of TCDD, articles on the social opportunities for railway workers, touristic promotional articles for cities on the railway route, and even agricultural guides for staff residences have been regularly featured.

In particular issues of the archive, there are quite significant articles on Sivas Railway Repair Shop. In addition to data on the establishment process and the factory's activities, these sources provided the most reliable information on the settlement history.

In terms of its content, *Demiryol Dergisi* is a vital reference source for seeing the establishment process of the Republic and the early industrialization process, technical progress in production infrastructure, and the social transformation resulting from these processes. Moreover, the data gathered from these sources is not only about the Republic of Turkey's State Railways, but also information about living standards and the lifestyle of the staff. Valuable information could be collected in this research in order to understand how they conFigured and experienced daily life.

In order to reveal the architectural value of the settlements and what they mean in the urban context, it is necessary to analyze the dynamics of the city and the geography in which they are located. This analysis will reveal the relationship between the city and the railway areas since the foundation of the railway industry in Sivas. This relationship includes spatial organization within the campuses and

their reflections on the city. In order to understand all these spatial relations, it is necessary to observe the urban conditions of Sivas city center. In order to comprehend the current spatial problems of the city, it is necessary to observe the development of the city in the period before the settlements were established and the transformation of the city after the establishment of the settlements. Accordingly, The Master Plan of 1972, which was obtained through the Sivas City Master Plan Competition held by Bank of Provinces in 1967, was provided from the Municipality. Furthermore, the Master Plan of 1985 and the current Plan, including the changes made in previous years, were obtained from there.

In addition to these master plans, the Sivas Province Analytical Studies (Sivas Analitik Etüdleri) report published by the Provincial Bank in 1966 and the Yurt Encyclopedia published in 1983 were used. The report contains comprehensive data about Sivas, such as the history of the city center, architecture, and the spatial analysis of the city, economic conditions of the city. The values and obsolesces of the city center also mentioned in the report. There are also analyses of the social structure and the rituals of daily life. Therefore, these comprehensive surveys of the past of the city are very valuable to understand the place of the Railway and the Railway industry in Sivas.

CHAPTER 2

COLLECTIVE MEMORY

2.1 Definition of Memory

Since the Mnemosyne, the mother of the muses in ancient Greek mythology and the goddess of memory, many thinkers have been working through memory. Memory is a subject that has been studied in a variety of disciplines, including art, sociology, philosophy, theology, psychology, neuroscience, history, and literature (Erll, 2008).

The biochemical and neurological dimensions of memory are explored in the field of neurology, while researchers in psychology focus on the basics of cognitive and emotional processes of recall (Öymen Özak, 2008). On the other hand, psychoanalysts investigate the place of memory in long-term life stories, philosophers investigate the phenomenon of memory, and sociologists explore the social dimension of memory (Öymen Özak, 2008).

In the Cambridge dictionary, the notion of memory is defined as “the ability to remember information, experiences, and people” and “a thought of something that you remember from the past” (Cambridge Dictionary, n.d.). In the Cambridge Philosophical Dictionary, it is mentioned that memory consists of the present and the past, and a situation or event is necessary for memory and includes both internal and causal relationships where memory meets (Audi & Audi, 1999).

Memory in Mirriam-Webster Dictionary: (1a) “the power or process of reproducing or recalling what has been learned and retained especially through associative mechanisms” (1b) “the store of things learned and retained from an organism's activity or experience as evidenced by modification of structure or behavior or by

recall and recognition", (2a) "commemorative remembrance", (2b) "the fact or condition of being remembered", (3a) "a particular act of recall or recollection", (3b) "an image or impression of one that is remembered" (Merriam-Webster Dictionary, n.d.).

As can be understood from the definitions of memory in the dictionaries in general, memory can be defined as information obtained from past experiences held in the human mind. The individual interprets and acts with this memory information in mind in his/her daily life. This information consists of life experiences that make up the identity of people, determine who they are and where they belong (Erll, 2008). Therefore, it has a temporal dimension. Moreover, memory is not just a concept about the past. It associated with remembering and reinterpreting processes shape the current life experiences. Therefore, it also relates to the relations of events, facts, and acts on the life chart.

According to Zelizer (1995), memory connects people to a broader world on many different levels. She explained that: "...linking the lived with the folkloric, the children of tomorrow with the ancestors of yester-year, the personal lives of individuals with the shared experience of the collective." (Zelizer, 1995).

As Zelizer (1995) mentioned that the concept of memory was on the focus of the studies in the discipline of psychology, and it has been regarded as a psychologistic process or cognitive device by psychologists until the 1930s. However, these ideas about the functional side of the notion of memory as a tool of retrieval manner became insufficient in the next era (Zelizer, 1995).

2.2 Collective Memory Studies

In order to comprehend the thoughts about the theory, it is necessary to see the theoretical context and the discussions on the concept. Previous ideas and preliminary studies about memory have been effective in shaping the boundaries of

collective memory. That is, these studies provide signs from the theoretical background of ideas Halbwachs emphasizes. Thus, before mentioning the theory of collective memory and Halbwachs ' approach to this subject, it is necessary to examine the pioneering researches on memory and the critical approaches that have been effective in shaping Halbwachs ' ideas.

2.2.1 Durkheimian Approach to Memory

In his book Remembering, Frederic C. Bartlett (1932) propounds that memory is a kind of construction activity. Bartlett, who conducted a series of recall psychological experiments, explained its connection to the social factors. He declared that without any kind of social framework, memory could not proceed. (Zelizer, 1995).

The examination of this notion in particular through social relations began with research conducted in the late 19th and early 20th centuries. Although Hugo von Hofmasstal first used the notion of collective memory in 1902, Maurice Halbwachs's work formed the theoretical basis that enabled this concept to be used in its present meaning (Olick & Robbins, 1998). His work "*Les cadres sociaux de la mémoire*" (Social Frameworks of Memory) published in 1925, created a paradigm changer effect with his determinations on the social dimensions of memory (Olick & Robbins, 1998).

Halbwachs' survey in memory studies merged the perspective of two prominent French characters of the late 19th century, sociologist Emile Durkheim, and philosopher Henri Bergson (Olick, 2008). Besides Durkheim and Bergson, which influenced the works of Halbwachs, there are other collective memory studies as well. Historian Marc Bloch, who was Halbwachs' colleague from Strasbourg, also used the term collective memory in 1925, and later in his book on feudal society (Olick, 2008).

Furthermore, the concept of collective memory was used by art historian Aby Warburg to evaluate works of art as a repository of the past (Olick & Robbins, 1998). Despite the fact that Walter Benjamin did not use a concept such as social or collective memory, he analyzed the material world as a cumulative history and produced ideas that could be considered parallel to his perspective (Buck-Morss, 1991).

However, despite these studies, research on the social dimension of the concept of memory could not progress cumulatively on a linear pathway. Owing to studies on memory carried out by Durkheim and his successors, later studies on memory have progressed more systematically (Schwartz, 1996).

In his book published in 1911 "*Matière et mémoire*" (Matter and Memory), Henri Bergson (1988) stated that memory is not only about the past but also about the knowledge of the present. Indeed, for Bergson, the past is never a thing of the yesterday; the past is something that continues to exist in the present. He also argued that memory is a place of meeting between the past and present, evoking all past perceptions that were related to present ones (Bergson, 1988). In Bergson's idea, time, memory, and thus past and present, they almost embrace each other. The memory of the past follows the person and develops towards the future by merging with the present memory (Bergson, 1988).

According to Bergson (1988), life is a process that begins with birth, continuing with growth, development, becoming adult, aging, and ending with death, that is to say, he claims that the person's memory is created by wrapping the information obtained while living. Thus this made time relative (Zelizer, 1995). Therefore, the result of Bergson's studies on memory was "prolonging the past into the present" (Bergson, 1988).

Time for Bergson is irreversible; therefore, "every moment of the future is new in compared to the moments of the past; Since the past moments are still in progress, the future moment cannot be a repetition of the past" (Lawlor & Moulard Leonard, 2016).

The most fundamental point of our conscious existence is the memory, which is the prolongation of the past to the present and the continuation of it in the present, that is, a dynamic and irreversible period (Bergson, 1999). Here memory plays an important role. Memory collects many moments of the time in a single perception; thus bringing the past to the present, bringing together these two elements of time that seem to be separate. Reaching out from the past to the present and the future therein indicates that the past, the present, and the future are not separate elements (Bergson, 1999). Moreover, it shows that the past does not cause the present, nor does the present cause the future. Besides, Bergson (1999) points out that these three elements of time form a unity as a vital flow.

As stated by Olick (2008), Bergson said in his radical philosophical analysis of the experience of time that the concept of memory was the focus of this experience. According to Bergson, in previous studies on the concept of memory, it was considered only passive storage (Bergson, 1988). On the contrary, he describes the process of remembering and delineated this process as active engagement. Despite the idea that memory is an objective reproduction of the past, Bergson described the fluid and changing characteristics of remembering (Olick, 2008). For Halbwachs and other following theorists, therefore, Bergson formed the issue of memory in particularly potent ways. Bergson's considerations on the difference between objective and subjective comprehensions of the past have provided significant references for Halbwachs' future works (Olick, 2008).

In some of his earlier studies, Durkheim has focused on the social classification of the concept of time. Later, in his work published in 1912 "*Les Formes élémentaires de la vie religieuse*" (The Elementary Forms of the Religious Life), he examined memorial rituals: interpreting these rituals as a form of connection between the past and the present. Shahzad (2012) stated that the concept of memory was discussed in an individual and singular manner up to Halbwachs. Durkheim was the first to discuss collective memory on a social scale. However, Durkheim did not use the term when examining the social aspects of collective memory. The first person to use and extend this concept was Halbwachs (Shahzad, 2012).

Like Bergson, Durkheim also disagreed with the objective and materialistic accounts of time. Whereas Bergson refers to the variability of the individual experience, Durkheim emphasized the differentiation between the structures of social organizations, which means that different societies produce own unique concepts of time; that is, social facts alter according to changing forms of a social structure rather than by subjective experiences (Olick, 2008).

According to Durkheim's definition in his book "*Les règles de la méthode sociologique*" (The Rules of Sociological Method) published in 1895, society is independent of individuals, but it is an entity that involves the social collectivity of individuals. He said that society is a force in itself; thus, strong social solidarity is necessary to establish and maintain the balance between the individual and society (Durkheim, 2016).

Moreover, as asserted by Durkheim, the social facts are collective representations, which are structural components of society such as religious, institutions, and the state, also morphological components such as population and settlements, as well as morality, and collective consciousness. According to Durkheim, social phenomena occur outside the individual and have a collective, independent nature that cannot be reduced to the individual (Durkheim, 2016).

The social facts, according to Durkheim (2016), consist of a collective gathering and a combination of behaviors, emotions, and thoughts, such that it is a unique reality; literally is not a reality. As Jones (2016) noted that the subjects of social facts have certain thoughts, behaviors, and emotions in common. This situation shapes the expectations of others from those subjects. These expectations become a tradition after a while (Jones, 1986). At some point, expectations and social realities begin to produce themselves. In other words, since it has become a tradition and everyone has this impression, one starts to act accordingly when s/he enters that role (Jones, 1986). That is, there is no going beyond the assumption of individual consciousness. Unwittingly, people are directing themselves to act in this way. Emile Durkheim, therefore, says that there is no free will (Durkheim, 2016).

He argued that the concrete ideas of subjects, which shape the everyday life of people in his book (Durkheim, 2016). He also argued that people are shaped according to society; the decisions of people are influenced by their environments (Durkheim, 2016). Jones (1986) mentioned that Durkheim designates individual actions as examples or representations of a variety of actions within society.

According to Durkheim, social facts emerge as a common product of a certain group or society, not of a particular person, and as a result of social reality, a certain sense of responsibility, expectation, and commitment occurs in people. Consequently, It means that social facts have compelling and restrictive power (Durkheim, 2014)

To sum up, social phenomena, or social reality, are things that occur in ordinary life, such as continuous human roles, feelings, thoughts, expectations-forming factors, according to Durkheim (Durkheim & Swain, 2008). As a matter of fact, the things that can change social phenomena are new social phenomena. Hence, the formation of this new social reality also achieved through a collective change of thought, emotion, belief (Durkheim & Swain, 2008).

For future researchers, Durkheim's remarks on the social aspects of memory are guiding, such that Durkheim's approach to the notion of memory has formed a sociological framework for Halbwachs' future work on the variability of memory that Bergson points out.

2.2.2 Halbwachs' Theory of Collective Memory

The works of Maurice Halbwachs plays a leading role in expanding the meaning of the concept of collective memory. Halbwachs' work focusing on the concept of remembering is generally shaped around the relationship between remembering and social relations. Before his research on the concept of memory, memory has always been examined through 'isolated individuals' and has been the subject of psychological studies (Halbwahcs, 1992). However, according to Halbwachs (1992),

the act of recall is a collective character. Remembering is individual, but it can only be realized when it is involved in society. He (1992) says: “People often acquire their memories in society and again remember, define and position them in society.” The individual makes use of the "social frameworks of memory" to realize the act of remembering (Halbwahcs, 1992, p.38).

According to Halwachs (1992), remembering does not mean repeating the past as it is. Halbwachs argued that it is impossible to preserve the existence of the past in memory as it is, but the past is produced on the basis of the present through the reconstruction process.

As Halbwachs (1992) explained, The collective frameworks of memory are not formed by the combination of individual recollections, but also, these frameworks are not empty structures that contain recollections from elsewhere. On the contrary, Social frameworks are the instruments by which collective memory reproduces an image of the past, in accordance with the predominant social ideas (Halbwachs, 1992).

Halbwachs says that these memories are reproduced consistently while we retain memories from different periods of our lives. Through these continually repeating situations, a sense of identity is perpetuated. However, Halbwachs (1992) points out that these memories are the product of the reconstruction processes of the past, and they are also involved in various systems of notions; thus, they lost the shape and appearance they once had in separate phases of life (Halbwachs, 1992).

From a viewpoint by Halbwachs (1992) While the past is being reconstructed, it is regulated according to present, and its boundaries are redrawn. At the moment of reshaping the past, some memories come into prominence, while others become faint. As a consequence of that, past experience-related feelings also change in line with this restructuring. Halbwachs (1992) points out that nostalgia for the past, and especially for childhood, is a desire to escape the present social situation. He claims that the person who dreams of the past affirms his childhood, that is to say, the personality that has not yet been restricted and the social situation in which he is;

and then attributes to him qualities that he does not have. The past that he remembered is fixed now. Restrictions and expectations of the past have been fulfilled, and feelings such as desire, love, fear, and hate are in the back (Halbwachs, 1992).

As stated by Halbwachs (1992), this is another reason why the past is more desirable than the present and why people passionately interest in the past. Nevertheless, the person is still more dependent on the present, and desires and orientations of the time. Halbwachs (1992) asserts that remembering the past, completing the past by looking from the present, and forming a clear meaning for it is a necessity of the present.

As Coser (1992) says, Halbwachs argues that remembering is always done by individuals, because they are “located in a specific group context, draw on that context to remember or recreate the past”. Moreover, Halbwachs (1992) also added that "individual recollections only exist and are localized in the past by linking up with the memory of others: one remembers only as a member of a social group". Halbwachs claim that the act of recollection occurs through the interaction of people and groups of people in one's life and that memories are clustered together and associated with communities (Halbwachs, 1992). The social activities like national festivities create “affectively toned memories” (Coser, 1992).

People's own characters and individual perspectives are shaped by the social environment and factors in which they live (Halbwachs, 1992). Even though individuals believe that they are entirely free in their actions, ideas, and feelings, they still remember under the impact of collective thoughts. The directive influences of social milieu are often not perceivable to people (Halbwachs, 1992). Halbwachs illustrated his remarks through the analysis upon childhood memories in the following statements:

> Once we become adults, it is often impossible to say whether a memory of a childhood experience is more the result of stored features of the original moment or some kind of compilation out of stored fragments, other people’s

retellings, and intervening experiences (Olick, Vinitzky-Seroussi, & Levy, 2011).

However, what Halbwachs says does not mean that collective memory is a kind of group mind, because, "while the collective memory endures and draws strength from its base in a coherent body of people, it is individuals as group members who remember" (Coser, 1992).

Halbwachs exemplifies the notion of collective memory through different groups. Each community has its own common thoughts, habits, and its own collective memory that develops in relation to those (Halbwachs, 1992). That memory is constructed over a specific duration, based on the group's nature. Halbwachs (1992) claims that: “every collective memory requires the support of a group delimited in space and time”.

Halbwachs (1992) also talks about the mnemonic power of the space. For example, a country, a city, a city's streets, buildings, and squares form the spatial framework of social memory. Halbwachs stated that space is 'sine qua non' for social memory. He also added that even if the social groups leave their place, they symbolically reconstruct the space (Assmann, 2001).

According to Halbwachs, because of the fact that the collective memory also contains spatial significance, and the space is static, they locate themselves on these static locations, so collective memory enables the group to survive (Lipstadt, 1999). The significance that the group assigns to space and the stability of the space gives it a function as a transmitter for the transfer of traditions. Nevertheless, when space or group is under pressure from a transformation, traditions may develop resistance to changing. Therefore, one of the things that allows memory to have a collective meaning is spatiality, which is a constituent of social framing (Lipstadt, 1999).

He extends the concept through discussions of the collective memory of the families, faith-based communities, and social classes. He also examines the processes of historical change in the family, Christianity, and social classes and analyzes the place

of collective memory in this process. Halbwachs (1992) points out that each of the different groups, each family, each belief group, each profession in the society has its own collective memory; they have shared senses and habits, conventions, rituals, symbolic images, and boundary stones. Because each individual gets involved in more than one group in society, these different social memories in the society are in constant interaction with each other (Halbwachs, 1992).

Halbwachs also focused on the social changing in society in his works. As he propounds that society benefits from collective memory while changing according to their own needs. In this way, it transforms the collective memory by reconstructing it according to its needs (Halbwachs, 1992). He believes that in order for society to adopt the new, it must contain the collective knowledge of the past. Like the individuals who have benefited from past experiences and impressions in evaluating new thoughts, society also inevitably evaluates social changes and modifications according to its adaptation to collective memory. To accept social innovations, they must be in harmony with common considerations inherent in collective memory (Halbwachs, 1992).

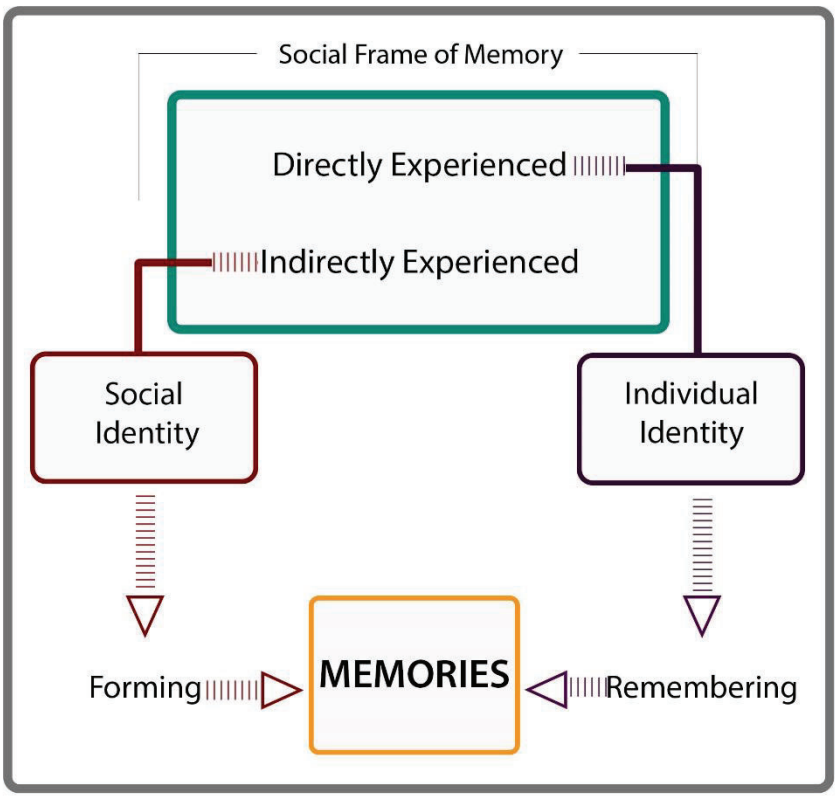


Figure 2.1. Memory Processes

2.2.3 Extention for Theory of Collective Memory

Halbwachs' work is worthwhile in terms of a more systematic basis for studies on social memory. As a result of these studies, conceptualized collective memory notion has had a triggering effect for other studies in the disciplines of social sciences (Tekin, 2017). As stated by Tekin (2017), the concept of social memory were evaluated as a functional tool in identity and memory studies, so that it was re-opened to the discussion and evaluated from different perspectives.

2.2.3.1 Realms of Memory

Pierre Nora focuses on places of memory in her four-volume work "*Rethinking France: Les Lieux de mémoire"* (later translated in English as *Realms of Memory: Rethinking the French past)*, edited by her. Nora (1989, p. 7-24) says: "There are *lieux de mémoire*, sites of memory, because there are no longer *milieux de mémoire*, real environments of memory" about the constant mention of memory and identity notions.

Nora (1989) points out that the transition from primitive societies to contemporary modern societies is accelerating, and this situation gradually increases the distance between history and memory. As claimed by Nora (1989), the concepts of memory and history are non-synonymous, and there is even a lot of distinction between them. Nora (1989, p. 8-9) says that:

> Memory is life, borne by living societies founded in its name. It remains in permanent evolution, open to the dialectic of remembering and forgetting, unconscious of its successive deformations, vulnerable to manipulation and appropriation, susceptible to being long dormant and periodically revived. History, on the other hand, is the reconstruction, always problematic and incomplete, of what is no longer. Memory is a perpetually actual phenomenon, a bond tying us to the eternal present; history is a representation of the past.

Nora added that, while memory attributes sanctity to memory, history ejects memory and banal it. Furthermore retrieves the memory resource from a group that it fuses. Nora says that Halbwachs said, "... the more groups there are, the more memory there is; memory is different and unlimited in nature, collective, plural and individualized" (Nora, 2006, p. 7-24).

Nora (2006) remarks that what we now call memory has already been included in history. Memory-based real-life has been replaced with a memory that is the asset of history that needs to be kept alive with memory spaces. According to Nora (2006), realms of memory arise from the idea that there is no spontaneous memory. As explained by Nora (2006), as societies move away from the reality of memory, they try to compensate for the rootlessness by building memory sites. They are born and live by emotions that make it necessary to establish archives, to continue their anniversaries, to organize religious rituals, to give gloomy funeral discourses, and to have the documents approved by a notary (Nora, 2006). Concrete or abstract, physical or performative, memory sites are inevitably a fiction built on the past and a selection made from the perception of the past. These fictions play a crucial role in the process of building the identities of individuals and society. They determine the future of individuals and society by shaping their relationship with the past (Nora, 2006).

Nora's interpretation for ‘sites’ of memory, in general, does not refer to a built environment, but when Nora describes the realms of memory, he talks about an inclusive space that can mean much meaning. When Nora mentioned “*lieux de mémoire*”, he affirmed that in past genuine memory was "a true component of everyday experience" and memory inhabited "room, gesture, picture, and object" (Lipstadt, 1999).

According to Nora (2006), simplicity and complexity are concepts in which it can be described as the essential and complex structures of memory spaces. These spaces are directly open to the most natural and sensitive experience and, at the same time, have the most abstract formation (Nora, 2006). Memory spaces contain all three meanings of the word symbolically, materially, and functionally, but these meanings are at different levels in each of them (Lipstadt, 1999)

According to Nora (2006), as a historical act, any mediation media used for organizing past experiences and re-presenting them to the memory of the society can be accepted as a place of memory. Nora exemplifies this situation: the archive store,

the school book, the will, the posture of respect, and the concept of generation are places of memory (Nora, 2006). The corners where the pictures are stored, the drawers where the letters are stored, the photo albums, and the updates are the sites of memory in a sense defined by Nora. As argued by Nora (2006), built environments such as monuments, squares, and monumental structures turn into memory spaces with rituals designed to make an experience permanent. Besides, Nora considers architectural and monumental spaces separately.

Moreover, where monumental places such as statues and mausoleums are located also substantial (Nora, 2006). However, Nora added that these monuments also make sense in their meaning alone. While architectural spaces cannot establish the value of memory space independently of the relation with the place they are located, they mention that monuments can retain their meaning even if they are moved (Nora, 2006).

As mentioned by Connerton (1989), Nora believes that memories are built within social systems and institutions; however, he does not describe how they are formed within the same social structure and then pass on from one generation to another. According to Connerton (1989), the human agency is represented as an agentless factor in Nora's studies. Connerton (1989) claims that Nora does not make clear statements about the fact that 'social groups are made up of a system, or systems of communication' and how collective memory is reconstructed.

In the works of Nora "*Rethinking France: Les Lieux de mémoire",* He also focused on the political implications of the notion of collective memory. While explanation to aspects of the politic use of collective memory in France, he mentioned the form of the Republics' memory as "authoritarian, unifying, monopolistic, universal, and systematic based on an intense past." (Nora, 2006). As explained the notion of authoritativeness by Nora, he emphasizes the new form of the Republic, which strengthens its power by melting different segments in same pot and makes dependent on itself. It refers to the accumulation of local memories in a common fund connected to national culture in order to create a national memory with the

"unifying" nature of memory (Nora, 2006). According to Nora, memory, contradictions, and the things that it excludes create its consistency through the enemies created in a way. Nora (2006) mentions the universality of memory, while the founding ideology establishes its national existence on universal values, in other words, it considers a state of mutual relationship and positioning between the national and the universal. On the other hand, it is based on an intense past, and it is the approach of achieving national reconciliation by keeping the Republic's national memory alive (Nora, 2006).

Nora mentions that the examples of the political implications of memory he explained through France are not unique to France or the Republic. According to Nora, Eric Hobsbawm's conception of the invention of tradition is another naming of this situation (Nora, 2006). Hobsbawm and Nora agree that a licit fiction is needed to legitimize national consciousness and social memory; as the political stances change, so does the reference point of the heritage (Nora, 2006).

Hobsbawm states that invented traditions are prevalent in nationalized states after the industrial revolution, and describe two different types of this term. As stated by Hobsbawm (2006), invented traditions may be traditions that are genuinely invented and built and institutionalized, as well as traditions that have emerged in a short period and have developed rapidly and become established.

Hobsbawm (2006) emphasizes the distinction between “tradition” and “custom”, “convention”, and “routine”. According to Hobsbawm, the decisive feature of tradition is the claim of invariance, but tradition cannot fully oppose innovation and change, and changes over time. According to Hobsbawm (2006), customs and routines without a specific ritual or symbolic function cannot be defined as tradition. In the invention of tradition, he draws attention to the fact that old materials can be used for new purposes by making use of symbolic practices and communication language of every society (Hobsbawm, 2006). He says that the invention of tradition will not be necessary when old lifestyles continue (Hobsbawm, 2006).

Hobsbawm (2006) states that the traditions invented in the period after the industrial revolution are related to 'nation' which is a relatively new historical innovation. Furthermore, it is also closely related to phenomenons such as nationalism, nation-state, national symbols, and histories, etc. It is closely related to the phenomenon. Hobsbawm (2006) divides these traditions into three types. Traditions invented in the post-industrial revolution period can be divided into three overlapping types:

> a) traditions that form or symbolize social cohesion or group belonging to real or artificial communities;
>
> b) traditions that form or legitimize institutions, status, or authority relations;
>
> c) traditions whose primary purpose is socialization, the transfer of beliefs, value judgments, and practices of conduct. (Hobsbawm, 2006)

2.2.3.2 Collective Physical Acts: Rituals

Nora and Hobsbawm's views on commemorative means such as ceremonies and rituals, which are necessary for the formation of a series of traditions belonging to a ‘nation’ in the context of the formation of social unity, are very valuable. When Connerton's ideas on memorial ceremonies and bodily practices are combined with Nora and Hobsbawm's work, a broader theoretical framework emerges on rituals and repetitions. Connerton also claims that the conceptualization of the ‘invention of traditions’ is overlooking the performative nature of ceremonies (Connerton, 1989).

One of the starting points of Paul Connerton's work is the relationship between societies and individuals with their own memories. Although Connerton agrees with Halbwachs on the fact that memory is a collective act, he claims that Halbwachs’s discussions are insufficient regarding the means to maintain and transfer memory (Connerton, 1989). Connerton claims that perception of today is based on the knowledge of past experiences. He also adds that the image of the past participates

in the legitimization process of the current social order (Connerton, 1989). In addition to these, Connerton also states that it is not sufficient to consider collective memory with this perspective.

Connerton (1989) remarks that ‘An element of reminiscence lies within every beginning. This is especially true where a social group is making a coordinative effort to lead a completely new path’. Connerton's these remarks are directed at the reconstruction of images of the past, and sometimes as opposites to the images of the past, by the founders of a new system.

In addition to these, Paul Connerton (1989) provides a different perspective on Halbwachs' interpretation of the relationship between the memories of individuals and communities. According to Connerton (1989), Halbwachs refuses to distinguish two important questions: First, ‘how does the individual preserve and discover his memories?’ The second is ‘how do societies rediscover their memories?’ Connerton's these remarks are about Halbwachs' disregard for the importance of ceremonial practices in the formation and maintenance of social memory (Connerton, 1989). He claims that ceremonies are not only a tool for putting into words, but also they enable the expression of emotions. Yet, the fact that ceremonies are expressive actions is only due to their regularity (Connerton, 1989). Connerton examined the social memories’ process of remembering, particularly through the act of transference acts that are not based on writing and recording. In his studies under the titles of commemorative ceremonies and bodily practices, he argues that information that is the extension of the past activates remembering by stimulating social memory through repeated revitalization (Connerton 1989). Connerton, therefore, elaborates on how rituals make sense.

Connerton classifies memory under three categories: personal memory, cognitive memory, and habitual memory. He claims that personal memory is associated with reminiscence actions related to a personal past. According to Connerton (1989), personal memory ‘takes as their object one's life history’. Cognitive memory is defined as a construction activity through coding. Furthermore, Connerton argues

that social memory operates through commemorative ceremonies and bodily practices, describing this type of memory as “habitual memory.” For instance, knowledge of riding a bicycle uses the habitual memory type for remembering (Connerton, 1989). According to Connerton, memory studies are mostly focused on personal and cognitive memory while the concept which he defines as habitual memory is excluded from the discussions on memory (Connerton, 1989). According to the author, the concept of habitual memory is addressed with conventionalist approaches and this type of memory is examined by creating a confusion of concepts with other definitions. Yet, the author claims that habitual memory has a very critical place in conservation and transmission of social memory (Connerton, 1989). The author discusses the issue of habitual memory, which he claims to be the basis of social memory, through commemoration ceremonies and bodily practices.

Connerton (1989) uses Steven Luke's definition of the concept of ritual. Rituals can be defined as ‘activities governed by rules of symbolic nature, which draw the attention of those who use it to things related to the thought and emotion they think are of special importance’ (Connerton, 1989). Rituals are used consciously to express certain emotions. They have a specific form and tend to repeat at certain frequencies. In communities, there is generally a liability to participate in rituals, even if they are not obligatory or restrictive. The feeling of the necessity to participate in these rituals due to this liability is more closely related to the community itself than to the importance attributed to these ceremonies. This sense of necessity has a function of making the community more meaningful, as well as emphasizing the sense of unity. Thus, this sense of necessity emerges from these functions (Connerton, 1989).

Connerton (1989) considers ceremonies and bodily practices as crucial factors in the establishment of collective memory. He claims that the fact that the images and the remembered knowledge of the past are carried and maintained through demonstrations which can be investigated through studies based on ceremonies and bodily practices.

According to Connerton (1989), the impacts of rituals are not limited to ceremonial times. Ceremonies are shown at known times, but regardless of what ceremonies show in content, they also engage in non-ceremonial behaviors and thoughts (Connerton, 1989). In other words, this shows that ceremonies have overflowing impacts in terms of time (Connerton, 1989). The author also claims that the repetition of ceremonies creates a perception that the past continues uninterrupted (Connerton, 1989). The claim of continuity of the past is created by embedding the events of the past into a narrative and by transforming this narrative into movements and syntax with a certain rhythm through ceremonies. Connerton (1989) suggests, therefore, that rituals add value and significance to the life of community members.

According to Connerton (1989), commemorations and ceremonies reveal an awareness of monuments and memorials unnoticed or forgotten through everyday life. Commemorative practices allow individuals to engage with these memorials. This state of community creates a behavioral change on the social acts of individuals, and as a result the functioning of everyday life is reshaped.

In his book "*How Societies Remember?*", Connerton (1989, p. 4-5) remarks that bodily performances have a significant role in commemorative activities for participants as such:

> "If there is such a thing social memory, I shall argue, we are likely to find it in commemorative ceremonies; but commemorative ceremonies prove to be commemorative only in so far as they are performative, performativity cannot be thought without a concept of habit, and habit cannot be thought without a notion of bodily automatisms." (Connerton, 1989)

In his expressions, Connerton emphasized the participatory aspect of commemorative acts. Furthermore, he states that psyche, body, and place come together through these commemorative activities (Connerton, 1989). Therefore, he argued that commemorative activities could not be considered in a context separate from body and space. Connerton (1989) states that "the order of the space retains the order of things to remember." As a result, Connerton (1989) points out that rituals

and memories are vital to the recall and reconstruction of the past. Connerton states that this series of activities must be performed in order to transfer memories to the future generations.

Moreover, Connerton (2009, p. 7) he states in his book "*How Modernity Forgets?*", "many acts of remembering are site-specific, but they are not all site-specific in the same way". Connerton (2009) addressed collective forgetfulness spatially, temporally, and topographically. He states that most of the remembrance is related to space, while he examines the memory of space under two different titles, which are: 'memorial and locus'.

Connerton refers to the notion of the memorial as *lieu de mémoire*, which is a product that is intentionally designed. Connerton (2009) associates the existence of memorials with the express purposes of remembering and forgetting. He states that: "the relationship between memorials and forgetting is reciprocal: the threat of forgetting begets memorials and the construction of memorials begets forgetting. ...Memorials conceal the past as much as they cause us to remember it" (Connerton, 2009, p. 29). According to Connerton (2009), memorials are places that are reminiscent of social events, stories or people that affect the society, capable of producing the present as past tense and blending the old with the new altogether. They can be a symbol of transition from one stage of life to another for certain groups, do not have a fixed time limit, and can accommodate various rituals that vary from community to community (Connerton, 2009).

As asserted by Connerton (2009, p. 5), locus is "a place easily grasped by the memory, such as a house, arch, corner, column, or intercolumnar space. The loci or places in question can be actually perceived or they can be simply imagined". According to him, locus is the place where the knowledge and cultural symbols of the society begin to spread, material and spiritual memories come together and which refers more than to a shelter and a geometric structure. Moreover, these places refer to streets where individuals from all social groups meet incidentally while personal

commitment is not required, social and political forces can emerge and form the spine of the city in which it is located (Connerton, 2009).

When loci become associated with memory, this is not integral to their presence, but incidental. Loci is a spontaneous encoding of a location, as opposed to memorials (Connerton, 2009).

2.2.3.3 Cultural Memories

One of the premise scholars working on the concept of advanced social memory led by Halbwachs is Jan Assmann. The author amplified the concept of social memory by approaching the notion from the fields of cultural studies and identity theories. Assman (2001) proposed, in his book "*Cultural Memory and Early Civilization: Writing, Remembrance, and Political Imagination*," external dimensions of collective memory are fourfold; mimetic memory, material memory, communicative memory, cultural memory. He claims that cultural memory is an area where the previous three fields meet more or less in integrity (Assmann, 2001, p. 27-28). Assmann explains these concepts as follows:

Mimetic memory is the type of memory in which behaviors are obtained as a result of imitation (Assmann, 2001, p.25). Mimetic memory is a field of behavior. Assmann claims that written behavioral guides, such as user guides, cookbooks, building plans are the result of an advancement that started quite late and was never fully effective. The habits and rules related to the imitation tradition shape behaviors in many areas of daily life (Assmann, 2001).

Material memory is the type of memory that is located around human beings that human define himself / herself in relation to them and remembers their own past and memories with them (Assmann, 2001).

Assmann (2001) explains this type of memory with following examples: ‘From daily and personal items such as beds, chairs, clothes, and tools, to houses, villages, and cities, streets; dreams like expediency, comfort and beauty are thus, in a sense, a reflection of one's own self, reminding its ancestors and its past’. Furthermore, in the world of things in which individuals live, there is a temporal syntax reminding different pasts while experiencing the present time (Assmann, 2001, p. 25).

Communicative memory is based on the language and communication that emerges with the communication and interaction of the individual with others. Assmann (2001, p. 25) claims that man's language and communication abilities do not emerge by itself as an internal dynamic. On the contrary, people develop these abilities by interacting with others and the cyclical and reversible interaction of the inside and the outside (Assmann, 2001). Assmann also adds that consciousness and memory cannot be explained by individual physiology and psychology, while the individual's interaction with others must also be considered since the consciousness and memory develop with respect to the individual’s ability to take part in this interaction (Assmann, 2001).

Cultural memory, as defined by Assmann (2001), based on written and visual carriers of information. Assmann (2001, p. 27) states that cultural memory is an area where ‘the previous three areas meet more or less in integrity’. When routine imitations have meaning beyond their purpose, for example, when they acquire the status of traditions, the limits of mimetic memory exceed. Traditions thus are a part of the field of cultural memory as a way of transferring and reviving cultural meaning (Assmann, 2001). As illustrated by Assmann (2001, p. 28), ‘this applies to anything that is not only purposeful but also meaningful, such as monuments, tombstones, temples, idols, and transgressions of objects and memories that translate into an inward-looking sequence of symbols and icons, such as representations.’

Assmann (2001) claims that the more abstract the thought, the more concrete the reminiscence. In order for a truth to exist in the memory of a group, it must be lived in the form of a certain person, place or event (Assmann, 2001). ‘Figures of memory’

emerges from this exchange between concepts and experiences (Assmann, 2001). Assmann defines Figure of memory as “culturally formed, societally binding ‘images of memory’ (Rohdewald, 2008). The term ‘images of memory’ is already used by Halbwachs (Rohdewald, 2008).

Assmann approaches Figure of memory under three different contexts: attachment to time and space, commitment to the group, and reconstruction of history. According to Assmann, remembered contents are based on a certain time and space. In order for something to be remembered, it must be either occurring in a periodic rhythm, associated with a number of decisive events or experienced in very historic times (Assmann, 2001, p. 42-44). Figures of memory can be described as follows:

Attachment to time and space: According to Assmann's definition (2001, p. 43), remembrance Figures reflect a time commonly experienced; hence they depend on a specific time and space. The remembered contents become temporal due to the fact that they either happened in historic times or associated with very important events. The collective space is also the place of collective identity (Assmann, 2001). The collective space to which we belong, the “our” space, helps to integrate the individual identity with the collective identity. Longing for the homeland, country, village, or any collective space is also a means of commitment to the collective identity (Assmann, 2001). Group and space together form a symbolic common life; although the group falls apart from its own space, it maintains this unity by symbolically reproducing the sacred spaces (Assmann, 2001, p. 43). The reproduction of the sacred space and the collectively lived time is also a memorization of the symbols that refer to the collective identity.

Commitment to the Group: As argued by Assmann (2001, p. 44), collective memory exists with those who carry it. Therefore, collective memory can be associated with a real and living group. Communication forms emerge within the emotional life of the group, and common memories are experienced in this unity of emotion. For this very reason, memory is collective since memory itself exists because of its relationship with others: language, symbols, events, and socio-cultural contexts

(Assmann, 2001). Memory cannot be considered separate from the social context since when certain events are remembered the circumstances in which they occurred are also memorized. Festivals, the commemoration of the holy times, and the rituals realized during these times are the moments when social commitment is most intense (Assmann, 2001). Beyond the physical coexistence of the society, collective memory is reproduced at these times with the recall of common memory. Assmann (2001) claims that social groups produce their image and exist with respect to their common memories. In this regard, memory will never be able to preserve the past as it is but will exist as the group re-establishes it in each period (Assmann, 2001).

Reconstruction of History: Assmann (2001), by referring to the reconstruction of collective memory means that no memory can preserve the past as it is. On the contrary, it will remain only in the form that the group reconstructs it with respect to their own context in every historic period. Hence, there is no pure reality of remembrance (Assmann, 2001, p. 44).

Jan Assmann further expanded Halbwachs' work and adapted his work on collective memory to the present day. Assmann (2001) establishes the functioning of collective memory over two different categories: communicative and cultural memory, which are forms of collective remembrance.

According to Assman (2001), communicative memory comprises of recent memories. These are memories that one shares with his contemporaries. The most typical example of this is memory specific to a generation. This memory is historically linked to a group; it is formed over time and disappears over time, which is limited to its carriers. This memory, which is directly connected to the individual and gained through communicative experience, makes room for another memory when the owner dies (Assmann, 2001).

Assmann (2001) argued that the participation of each individual in the group to communicative memory is not bound to a certain fixed value; each individual in the group participates at different levels. Some of the group members have less information; others have more information; for instance, the memory of the elderly

goes backward than the youth. Assmann (2001) considers eighty years as a limit value in terms of communicative memory, indicating also that half of this value, forty years, is a critical threshold. Accordingly, after forty years have passed since an event, people who have experienced this event as adults, often leave the future professional life, enter an age where the memories and the desire to transfer them to future generations increase (Assmann, 2001).

As defined by J. Assmann (2006), cultural memory is the means to remember non-everyday events. Unlike communicative memory, it is an institutionalized memory technique problem. This memory can only be created institutionally and artificially (Assmann, J., 2006). It is certain that cultural memory is also nourished by tradition and communication, but not determined by them (Assmann, 2001).

In cultural memory, the past does not remain as it is, it concentrates more on the symbolic Figures to which the memory is connected, that is, it focuses on certain points in the past (Assmann, 2001). According to Assmann, historicity, not reality, stands out in cultural memory. In fact, it can be claimed that the real history in cultural memory becomes the remembered history and then the myth. Myth is a history with a founding function; it is a story told to illuminate the present with the light of the past (Assmann, 2001).

As pointed out by Tekin (2017), Assmann makes use of Ethnologist Jan Vansina's definition of ‘floating gap’ while emphasizing the distinction between cultural and communicative memory. Vansina's work emphasizes that while groups or individuals remember a great deal of information about the recent past when we go a little backward, the information decreases, and there is skipping in the narratives; this indicates that historical consciousness works at two different levels: recent past and origin. The space between these two, which is constantly shifting from generation to generation, is called the ‘floating space.’ The difference between Assmann's communicative and cultural memories also points out the fundamental distinction between remembrance for the recent past and the origins (Tekin, 2017).

One of the important aspects where cultural memory differs from communicative memory is its formality and rituality (Assmann, J., 2006). According to J. Assmann (2006), another difference between these two categories is that the participation of the group is much more apparent in cultural memory than communicative memory. This also applies to societies that are egalitarian and lacking written culture. The main function of the narrator is to preserve the memory of the group (Assmann, J., 2006).

On the other hand, cultural memory, unlike communicative memory, has no self-propagation status (Assmann, 2001). This type of memory has always had special carriers. This includes all of the shamans, priests, teachers, authors, philosophers, and those who have been given the authority to carry information regardless of their names. These are called memory transmitters or memory experts (Assmann, 2001).

Assmann (2001) remarks that in cultural memory, meaning is taken under strict rules and is based on objectification. Cultural memory, thus, resembles a world of objects built by one's own (Assmann, 2001). Because of that, cultural memory is the product of the efforts to translate the important contents of communicative memory into a rigid form, thus exceeding the time horizons of individuals and establishing social cohesion on a certain basis (Assmann, 2001).

According to Assmann, the following examples can be given to the tools that function in the formation of cultural memory: monuments, statues, history textbooks, buildings, street, and square names, postage stamps, literature and artworks, political oratory, memorial days, memorial books, starboard, and flags, etc. Assmann (2001) defines them as mnemonics for groups and societies.

Formulated cultural memory is based on the determination of what societies should not forget in the context of past policy. Therefore, in the past reckoning, the work on the formulation of this memory and the tools that determine its content takes on a critical role.

J. Assmann (2006), in his article titled "Communicative and Cultural Memory', showed the differences between the concepts of cultural and communicative memory in terms of content, forms, media, time structure and carriers through a graphical representation (Figure 2.2).

	Communicative Memory	Cultural Memory
Content	Historical experiences in the framework of individual biographies	Mythical history of origins, events in an absolute past
Forms	Informal, without much form, natural growth, arising from interaction, everyday	Organized, extremely formal, ceremonial communication, festival
Media	Living, organic memories, experiences, hearsay	Fixed objectifications, traditional symbolic classification and staging through words, pictures, dance, and so forth
Time Structure	80–100 years, with a progressive present spanning three-four generations	Absolute past of a mythical, primeval age
Carriers	Nonspecific, contemporary witness within a memory community	Specialized tradition bearers

Figure 2.2. Communicative memory vs. Cultural memory

(Assmann, J., 2006)

Aleida Assmann, who carried out her studies with Jan Assmann, also contributed to the concept of memory by putting forth a different approach. A. Assmann (2006) stated that in everyday language, memory is generally divided into two categories as personal and collective memory, but this distinction is not enough to explain the complex amalgam of memories. She propounds that distinguishing "formats of

memory" can be disentangled in four levels: individual memory, social memory, political memory, and cultural memory (Assmann, A., 2006).

A. Assmann (2006) emphasizes the differentiation between individual memory and social memory, as well as between political memory and cultural memory. She claims that both individual and collective memory follows a communicative memory model which can be transmitted through individuals' lives or for at most several generations. On the other hand, the definitions of political memory and cultural memory exceeds individuals and generations; and rather refers to a memory that is transferred for a long time through institutionalizing by tools such as literature and rituals (Assmann, A., 2006).

As Aleida Assmann (2006) says, political memory has a structure built from top-down, not from the bottom-up, the subjective knowledge and experience from the individual perspective is lost. Therefore, it becomes a narration-like transfer limited, screened, and homogenized. Thus, long-term collective memory is created through the regulation and processing of temporary collective memory (Assmann, A., 2006).

As pointed out by Aleida Assmann (2006, p. 217), followings are some ways to organize and elaborate collective memory:

- employments of events in an affectively charged and mobilizing narrative;
- sites and monuments that present palpable relics;
- visual and verbal signs as aids of memory;
- Commemoration rites that periodically reactivate the memory and enhance collective participation. (Assmann, A., 2006, p. 217).

A. Assmann (2006) asserts that a third dimension is added to the memory structure shaped by remembering and forgetting actions with cultural memory. According to her, the distinctive aspect of cultural memory is archived information that can be defined as neither remembered nor forgotten. In addition to those that are publicly conveyed through works of art, the archives containing works of memory that only

experts can access are also included. This creates a possibility open for interpretation by different individuals at different times. In this respect, cultural memory differs from political memory by not homogenizing and limiting and rather containing more complex and interpretive potentials (Assmann, A., 2006).

2.2.3.4 City of the Memory

Aldo Rossi is involved in the concept of collective memory that Halbwachs put forward. He was one of the pioneers who brought the notion of collective memory back to the agenda after WWII. In his book, "*L' Architettura della Citta"* (The Architecture of the City, translated in English in 1982), Rossi (1982) argues that there is a mutual relationship between the city and architecture. In fact, according to Rossi, architecture is the discipline responsible for the construction of the city, while the city is the source of architecture with its collective memory (Rossi, 1982).

Rossi seeks a method for the city as man-made object. He offered three distinct propositions in his hypothesis.

The first of them is *permanences*. As remarked by Rossi (1982), urban development has a temporal dimension in such a way that there are before and an after for the city. According to Rossi (1982), this indicates that temporal coordinates can be connected with comparable phenomena that are not by nature homogeneous (Rossi, 1982, p. 63). This proposition is the source of the idea of permanence which Rossi describes as "a past that we are still experiencing" (Rossi, 1982, p. 59). Rossi also argues that permanences reveal what is continuous and variable.

The second proposition is about the city's spatial *continuity*. Rossi's definition of *continuity* "means to assume that all those elements which we find in a certain region or within a certain urban area are artifacts of a homogeneous nature, without discontinuities." (Rossi, 1982, p. 63).

The third proposition is that there are *primary elements* with a value "*in themselves*", which are "*capable of accelerating the process of urbanization in a city*" (Rossi, 1982, p. 87). Primary elements may occur in different characters and maybe complex to define in terms of city dynamics. In addition to that, Rossi states that monuments are always primary elements (Rossi, 1982, p. 87). As mentioned by Rossi (1982), monumental structures play a significant part in the growth and shaping of the city in this respect.

Rossi refers to Halbwachs thoughts in "*La mémoire Collective*" for emphasizing "*the soul of the city*":

> "When a group is introduced into a part of space, it transforms it into its image. But at the same time, it yields and adapts itself to certain material things which resist it. It encloses itself in the framework that it has constructed. The image of the exterior environment and the stable relationships that it maintains with it pass into the realm of the idea that it has of itself." (Halbwachs, 1966 as quoted by Aldo Rossi, 1982, p. 130)

Rossi (1982) claims that "*the soul of the city*" becomes its history and memory as the city's distinctive and definitive character. He explains it in the following words:

> "One can say, the city itself is the collective memory of its people, and like memory, it is associated with objects and places. The city is the locus of collective memory. This relationship between the locus and the citizenry then becomes the city's predominant image, both of architecture and landscape, and as certain artifacts become part of its memory, new ones emerge. In this entirely positive sense, great ideas flow through the history of the city and give shape to it (Rossi, 1982, p. 130). ...The union between the past and the future exists in the very idea of the city that it flows through in the way that a memory flows through the life of a person; and always, in order to be realized, this idea must not only shape but be shaped by reality." (Rossi, 1982, p. 131)

The concept that Aldo Rossi put forward with memory is "*locus*"; in other words, it is the plural form of the word "*loci*" which means place. Rossi (1992) defines the notion of the locus as the relationship between a particular place and its buildings and is described as "unique and universal" (Eisenmann, 1982, p. 7). Rossi (1982) interprets the city and architecture as the subject of memory, emphasizing the importance of memory in creating places. As mentioned by Rossi (1982), the social relations that take place in *locus*, on the other hand, directly affect the identity and character of that place. He argues that social memory is maintained through urban monuments and the architecture of the city. The "urban monuments", which Rossi (1992) calls them as artifacts, are structures that contain history and memory. Every piece of the city carries the city itself and its memory. In this context, the buildings, streets, and other physical components of the city provide an urban memory within the locus as well as the formation of urban identity (Rossi, 1982).

As pointed out by Eisenmann (1982, p. 7), for Rossi, "the city is a theater of human events,"; not only as a representation but as a reality. The city absorbs events and feelings that occur in the natural flow of life so that every event taking place in the city carries the memory of the past and potential future memories (Eisenmann, 1982). The locus is, therefore, not only a location that can accommodate a sequence of occurrences but also it is an event in itself as well (Eisenmann, 1982).

Aldo Rossi (1982) states that "a city remembers through its buildings". Rossi explains this in an analogy: there is a similarity between individuals' preservation of memories and preservation of the old urban fabric. The events that occur in the cityscape are, according to Rossi (1982), the area of interest in history, while events are related to the memory of the city. According to Rossi (1982), the city is a living being, so it would be right to read the city not only through physical layers but also by including social layers. The more consistent and continuous these layers are in themselves, the more it will be possible to talk about the parallel and proportional continuity of collective memory. That is why Rossi (1982) addresses the city in a psychological context like memory.

Rossi (1982) claims that social memory is a guide to urban space. Groups living in a place define and associate themselves with that space. There is a dialectical link between the group and the living space. As a result of this dialectical relationship, the city, which is the social memory, is formed (Eisenmann, 1982). According to him, preservationist attitudes for urban fabric or actions for demolition occurred in the built environment, are the factors that shape society's memory of space (Rossi, 1982). Transformations in the urban environment or the destruction of significant structures cause loss of memory and threaten urban identity (Rossi, 1982). Thus, according to Rossi, the distinctiveness of the city loses its meaning, and the city cannot maintain a guiding role for the living (Rossi, 1982).

Three decades after Rossi's thoughts, Christine Boyer (1996) took this discussion further in her "*The City of Collective Memory*". Christine Boyer (1996) introduced a new perspective on the concept of collective memory by assessing the changes in society and cities. Boyer says that “the purities of modern urban planning have left us face to face with displacement, disengagement, and disenchantment when it comes to the urban experience” (Boyer, 1994, p. 28).

According to Boyer (1996), the city reflects the traces of previous architectural forms, city plans, and public buildings. Boyer (1996) argues, similar to Halbwachs and Rossi's views, the city's significance is the collective architectural expression which integrated with the past (Boyer, 1996). Despite the fact that the city's name may never alter, the physical structure of the city is continuously changing over time, sometimes deformed or gradually forgotten, such that, is a modification in a manner of adapting to other requirements or destruction for different kind of intentions. She (1996) claims that the city's material order is perpetually influenced by the demands and pressures of social reality. Boyer illustrates this with an analogy; the city is like the theater of memory (Boyer, 1996, p. 31).

According to Boyer (1996), while memory is in a continuous restructuring, the invention of the future is organized to form the infrastructure of society. The values that are to be adopted are produced as representative forms in the public sphere to

complete this process (Boyer, 1996). Representative forms are defined as indicators used as substitutes for the whole. Many of the city memories are embedded in the physical artifacts and traces such as city streets, monuments, architectural forms, and traces. They bring the memory of the past forward to the present (Boyer, 1996). The streets, monuments, and architectural forms of a city also contain historical discourses. Not only does the urban structure change over time, but the forms that represent the city change over time. As argued by Boyer (1996), the collective forms and private realms of our memory help to differentiate one city from all the others by telling the changes that are taking place. The architecture of the city is not only a configuration that planners and architects formed in a particular order; they also contain information on society (Boyer, 1996).

As a result, Christine Boyer argues that the physical structure and relations of the city, in general, are changed by the influence of social demands and social realities and that their spatial traces are decisive for collective memory and urban identity. Remembering and forgetting actions are related to spatial practices in the public sphere (Boyer, 1994, p. 25-29).

CHAPTER 3

RAILWAY HERITAGE

3.1 Industrialization

Many historians and economists see the Industrial Revolution as one of the most critical turning points in human history. During this period, a transformation has been achieved through technology in many of the areas that shape a life (Hobsbawm, 1996). Changing production means, development of industrial manufacturing, and transportation facilities are the essential stages of this transformation. In short, the industrial revolution has led to significant changes in areas such as technology, production, economy, culture, social structure, urbanism, art, and architecture, as well as triggering new approaches to these issues (Hobsbawm, 1996).

The etymological origin of the word *industry* related to "cleverness, skill," from (14c.) Old French *industrie:* "activity; aptitude, experience" or directly from Latin *industria:* "diligence, activity, zeal" (Online Etymology Dictionary, n.d.). As pointed out by Trender (n.d.), the term '*industry'* was used in the sense of virtue before the industrial revolution, and later used in the sense of the production of goods on a large scale.

In today's actual use of the definition of the industrial revolution, this concept is explained by the expressions "the process of change from an agrarian, handicraft economy to one dominated by industry and machine manufacturing (Encyclopædia Britannica, 2019). In the pre-industrial periods, the production was generally carried out by hand production, which is called *manufaktur*, and performed with simple techniques. Then the process of change called industrialization had started, which created unlimited opportunities to improve productivity with machine-driven manufacturing methods (Şahinkaya, 1999). In this process caused by the industrial revolution, the diversification of manufacturing techniques and materials, and

remarkable progress related to that has taken place. For this reason, when a major step in the production system was taken, the 18th century is recognized as the era in which this process begins (Quataert, 2002).

Cipolla (1962) points out in "The Economic History of the World Population," the economic history of human beings can be written to a large extent on two occasions. As a result of these events, the human's economic and demographic level has changed to a great extent and made it possible to realize long-term financial growth. The first of these is the agricultural revolution that took place around 8000 BC. The other is the industrial revolution that began in the eighteenth century. In the next two centuries, the industrial revolution significantly reduced the number of agricultural populations in the world, and people became goods and services instead of farming (Cipolla, 1962). Hobsbawm (1996, p. 29) also explain industrial revolution with these state: "by any reckoning, this was probably the most important event in world history, at any rate since the invention of agriculture and cities."

Issues such as the starting date of the industrial revolution, the sector in which industrialization began, the stages leading to industrialization, and the determination of where the revolution reached its peak were discussed in several approaches by many economists and historians. (Deane & Cole, 1962).

The debate about the beginning of the industrial revolution can be examined through two different approaches. The British historian Arnold Toynbee's "*Lectures on the Industrial Revolution*," based on lectures at Oxford University and published in 1884, is considered the first work on the industrial revolution (Hobsbawm, 1996). Toynbee, the first person to use the term Industrial Revolution, sees the discovery of the steam engine in the 1770s as the beginning of the Industrial Revolution (Hobsbawm, 1996). John Ulric Nef, an American economic historian, offers another approach in this regard. Nef emphasizes the concept of *continuity* in his work and interprets it as the basis of history. Nef claims that the beginning of the industrial revolution dates back to the mid-16th century, and *industrialization* ends with the industrial state's victory in the late 19th century (Hobsbawm, 1996). Rostow made

one of the prominent remarks on this issue, according to him, this is a period in which modernization has been realized, albeit with limited success. Moreover, this is a period of economic growth in which no return is possible.

One of the dimensions of the discussions about the starting date of the revolution is about the temporality of the events that led to the revolution. One of these discussions is about the temporal dimension of the industrial revolution, has proceeded in three ways. As mentioned by Hartwell (1969), the first one is genuinely revolutionary. For instance, Rostow (1956) described the industrial revolution as a consequence of a substantial and rapid investment boost. According to Hartwell (1969), however, there was no near-static economy in Britain before the industrial revolution, though there had been growth. Besides, although there is progress in the economy compared to backward, this progress is not a sudden leap realized due to the industrial revolution in the eighteenth century (Deane & Cole, 1962). The second explanation in this regard describes this process as revolutionary but points out that the first and critical turning point of this change is a century later (Ashton, 2013). According to the second approach, "the industrial revolution was preceded by a previous economic expansion which finally built up to a mutually reinforcing faster growth process" (Hartwell, 1969). As remarked by Hartwell (1969), this approach cannot explain why initial growth started, and when it started. The third approach is both evolutionary and revolutionary (Hartwell, 1969). Accordingly, the industrial revolution is an enormous discontinuity, so that it is thought that there was growth before the revolution, and then accelerated further (Hartwell, 1969). Based on the idea, the final speeding-up of the revolution "did but carried further, though on a far greater scale and with far greater rapidity, a change which had been proceeding long before" (Ashley, 2018). Hartwell (1969) agrees with this explanation that the industrial revolution is a notable change in the rate of growth, first as industrial output and then as total output.

Another discussion concerns the stages of growth, leading to the period of industrialization. As stated by Hartwell, Rostow's theories stand out in this regard. Rostow noted the conditions of the industrialization process he named as take-off

(Rostow, 1956). Then, in his book *"The Process of Economic Growth,"* he explained the stages of take-off (Rostow, 1960). According to him, the take-off process consists of five steps: the traditional society, the transitional phase, the take-off, the drive to maturity, the age of high mass-consumption.

As pointed out by Hartwell (1967), however, the theory of stages is not only a proposition put forward by Rostow. Carl Bürcher has also formulated a theory of stages, in his book *"Industrial Evolution"* published in 1901 (Hartwell, 1967). According to this theory, there are three stages before the industrial revolution, which is in the fourth stage. In the first stage, there is the commercial revolution that began in the seventeenth century, in the second stage the agricultural revolution that emerged in the eighteenth century, and in the third stage the transportation revolution that took place in the second half of the eighteenth century (Hartwell, 1967). According to that, the emergence of each revolution depends on the realization of one or more revolutions before it. The cumulative effect of the trade, agriculture, and transport revolution has brought about the industrial revolution (Hartwell, 1967).

Similarly to this proposal, an approach by Deane (1980) is presented in his book *"The First Industrial Revolution."* Deane's approach, compared to Bücher's suggestion, looks at a somewhat broader perspective with the concept of the population revolution in the stages of industrialization. Deane describes four revolutions which associate with the industrial revolution (Deane, 1980). As a result of this situation, a new era has begun with the industrial revolution, which completely changes the agriculture, trade, transportation, and demographic structure of the society in the world (Deane, 1980).

Given the conditions in which the industrial revolution took place, it can be said in general that in Europe, especially in England, the necessary preconditions for the Industrial Revolution began to emerge until the middle of the 18th century (Hobsbawm, 1996). From the 1760s onwards, organic and inorganic sources of power such as human, animal, water, and wind power have changed. In the 1780s, steam power and steam machines were introduced, and production relations were

strengthened by the construction of the factories where wage workers worked (Hobsbawm, 1996).

In the 1750s, for example, the number of landowner agricultural workers and agricultural activity in the UK had declined. In addition to that, there was no shortage of capital. A widespread and highly developed manufacturing sector and trade relations system was formed (Hobsbawm, 1996). Besides, rivers were easy to reach in the UK, and there was a widespread rail network that provided a significant advantage in terms of transportation. After all, transportation and communication were easy and cheap (Hobsbawm, 1996).

As mentioned by Hobsbawm (1996), because of these advantages, industrialization developments in England started to spread to other European countries such as France, Germany, Belgium, and the USA since the beginning of the 19th century. Furthermore, this has had a significant impact on industries such as woolen weaving, coal production, and iron and steel. At the beginning of the 20th century, European countries such as Italy and the Netherlands, Japan, and Russia began to experience their Industrial Revolution (Hobsbawm, 1996).

Historian Paul Mantoux (1961) has worked on social aspects as well as the economic and technical aspects of the industrial revolution. According to Mantoux (1961), the invitations that took place this revolution's technological context enabled the continuation of the acceleration and boost of production. The industrial revolution's economic aspects are described by capital concentration and large-scale enterprise development (Mantoux, 1961). The industrial revolution's social dimensions underlined by Mantoux have profound consequences.

As a result, he points out that although this revolution has not changed society's legal form, social relationships and natural flow of life have completely changed. This situation is due to the emergence of social classes (Mantoux, 1961). Besides, from a broader perspective, the results of the industrialization process have led to the emergence of new political and economic systems, such as democracy, communism, capitalism, and socialism (Albrect, 2012).

3.1.1 The Social and Spatial Dimensions of the Industrialization

The Industrial Revolution has also changed the way people think and live and has a radical and comprehensive impact on social, cultural, and economic dimensions. (Tanilli, 2011). These developments, which started to be experienced since the middle of the 18th century, have led to the societies that have been living with agricultural production to turn into industrial societies with increasing speed and the emergence of new structures (Köksal, 2005).

Blumer (1973) claims that industrialization has changed many things about traditional social order. With industrialization, many existing professions have been transferred to different manufacturing practices. Also, production locations shifted from home and the small settlements to the cities. The industrialization has to promote social mobility. In fact, with the decrease in agricultural activities and intensification of machinery usage, the dispossessed people separated from their lands migrated to cities to work for wages (Pamuk, 1994).

As stated by Kimyon (2013), this flow from rural to urban has started to create changes in the spatial order of cities. David Harvey (2006) emphasizes the notion of "spatial fix" when talking about the spatial dimension of industrialization. He mentions that this concept has importance for successful industrial restructuring. He pointed to the new spatial environments generated by altering locations or reorganizing space to attain industrial advancement and expansion (Harvey, 2006).

With the spread of industrialization in different geographies, the existing urban pattern was forced to change to fulfill the spatial needs of the industry (Harvey, 2006). Thus cities adopted itself to the organization of industrial production. Harvey (2006) claims that different industrial structures in each geography created the new settlement typologies (Harvey, 2006). There has been a change in cities' silhouette with the effect of factory structures, new housing typologies, and new state structures (Kimyon, 2013). Besides, Harvey (2006) argues that the variable forms and locations

of these emerging typologies made visible the "inconstant geography" of capitalism as well as temporal instability.

Kimyon (2013) argued that the capitalist market and new production methods shaped by industrialization completely ruined old patterns of living. In order to solve the problems arising with the emergence of new production means, new urban spatial forms and new tools for manufacturing have become a necessity (Kimyon, 2013). Günay (1988, p. 24) discusses the three phases of human settlements in a historical context:

> "…rural settlements emerging with agriculture; urban settlements emerging as centers controlling agricultural surplus where administrative, commercial and small production functions are concentrated; and finally the industrial cities and metropolises."

He added that;

> "The first two phases are subject of pre-industrial city where, though many styles are encountered (greek, roman, medieval, baroque, renaissance, etc.). The size of the pre-industrial city was limited depending mainly on control of agricultural production, and where the main source of production and transportation relied upon organic sources of energy." (Günay, 1988, p. 24)

The revolution of the nineteenth century has influentially justified approaches to enlightened modernity from the seventeenth century (Asiliskender, 2009). The rational thought system of the Age of Enlightenment before the Industrial Revolution, combined with the technical, social, and cultural changes that came with industrialization, opened the way for modernization (Tanilli, 2011). This situation can be interpreted as an upheaval with a paradigm-changer effect. A renewed development process caused this transformation in a social and spatial context (Asiliskender, 2009).

When Harvey (1997) discusses the process of modernization, he defines it as chiefly an urban phenomenon, besides he points out that modernization proceeds with

explosive urban growth and massive alteration in the architectural context. Moreover, He gives point to an uneasy and complicated relationship with urban political movements. According to Harvey (1997), while analyzing industrial society and its urban space, general findings can be achieved through the consideration of industrialization and modernity.

As Günay (1988, p. 24) noted, the modern city has evolved with "the industry which depends upon inorganic energy" and has faced different challenges in the process. He exemplifies this statement as follows: "In the field of urbanization: fast growth of the city, industrial growth in the city and pollution, housing, transportation and infrastructure, high densities and congestion became the major points of discussion." Moreover, He also lists the major discussion in the field of architecture: new technology, new methods, new space understanding, and new styles (Günay, 1988, p. 24).

In relation to the discussions in the context that Günay addressed, the architectural environment was rapidly transformed. Advancements such as the evolution of construction techniques, the production of new materials, the feasibility of realizing designs with diverse spatial and volumetric forms gained through the use of iron and steel have generated opportunities for modern architectural applications (Ersine, 2012).

As a result, as remarked by Günay (1988), the period of industrialization that lasted until the 20th century created new classes by changing the social dynamics of pre-industrial societies. New social classes formed the urbanization and architectural theory and practice because of their *magnitude*, *power*, and *aspirations* (Günay, 1988).

3.1.1.1 Urbanization under the Influence of Industrialization

One of the most effective means of spreading the effects of the Industrial Revolution that started in the 18th century and the transformation of daily life is the railway transportation lines that began to spread in the 19th century (Özten, 2001). The railway infrastructure, which gained momentum with the development of technology, also affected industrial production. The effects of the industrial revolution, such as the population growth, the mechanization of production systems, and changing economic parameters that occurred in this process have come forth at different places in the cities of the developed countries. Thus, for the first time since the 13th century, a process leading to the expansion of the dimensions of the urban system in Europe transpired (Özten, 2001). The population of the city increased rapidly; new roads, canals, and railways were built after 1830. The industry has developed in parallel with the scientific and technological developments. Maritime transportation, which was the most efficient means of transportation until the industrial revolution, was replaced by railways. Shortly after the opening of the first railroad between Liverpool and Manchester in 1830, railway investments began in geographies such as France, The United States, Belgium, Germany, Italy, Russia, and the Netherlands, and soon a railway network was established throughout Europe (Benevolo, 1971).

As a result of these developments, different parameters have emerged regarding the relationship of railway lines with cities. In order to regulate the spatial and environmental relations of the railway with the urban and rural environment, the administrations have followed various policies. With the developments in the technical field, the necessity to take new measures for the integration of cities arose (Benevolo, 1971). In this period, the idea of public planning emerged. The understanding that would support, encourage, and co-ordinate expert initiatives of the public and private sectors has gradually developed. The urban experience, which can be considered as a turning point, transpired in Paris, which has been a decisive precedent for other European cities (Özten, 2001).

Haussmann, the governor, played a prominent role in Paris, where the first activities to regulate the effects of the changes created by the railway and industrialization began. The increasing integration of the French rail network and the central location of Paris in this transportation scheme have been an element of pressure on the transformation of the city center (Harvey, 2004).

Before the transformation process initiated by Hausmann, the city of Paris had the appearance of a settlement of an organic form, consisting of narrow and irregular streets, and containing many historical buildings (figure, 2.1). In this period, the poor and the low-income working class mostly resided in the city center. Besides, the social classifications prompted by the transformation that started with the industrialization became one of the crucial issues that shaped urban life in this period. Since the mid-19th century, violent conflicts have occurred due to the objections of the workers and the poor against social injustice. In this political atmosphere, a transformation project that would be initiated in the city center came to the fore as the solution of spatial and social problems that resulted in the administrative predicaments of the city. Therefore, the reason for the urban interventions in Paris is caused by politics as well as the changes in industrialization and transportation (Carmona, 2002).

For this reason, Haussmann's primary activities focused on the road network for the reorganization of the urban fabric (Carmona, 2002). In the historical core of the city that preserved its pattern from the middle ages, many housing units were demolished to organize a new road network (figure, 2.2). Haussmann rearranged the historical center of the city with a network of new, wide, and straight streets. Thus, it created a coherent transportation system between the main centers of urban life and the railway stations through these avenues. In this manner, both the traffic and crossings were arranged in parallel with the railways and roads. Besides, constructions on the new streets were more disciplined compared to those in the past (Carmona, 2002).

During this period, the governorate undertook the construction of public buildings in both new and modified old districts, such as schools, hospitals, prisons,

administrative offices, libraries, colleges, bazaars, and governmental structures and bridges. Numerous housing units were built in the city center. Studies have been conducted for the establishment of public parks, changes in the infrastructure, and the administration body (Carmona, 2002).

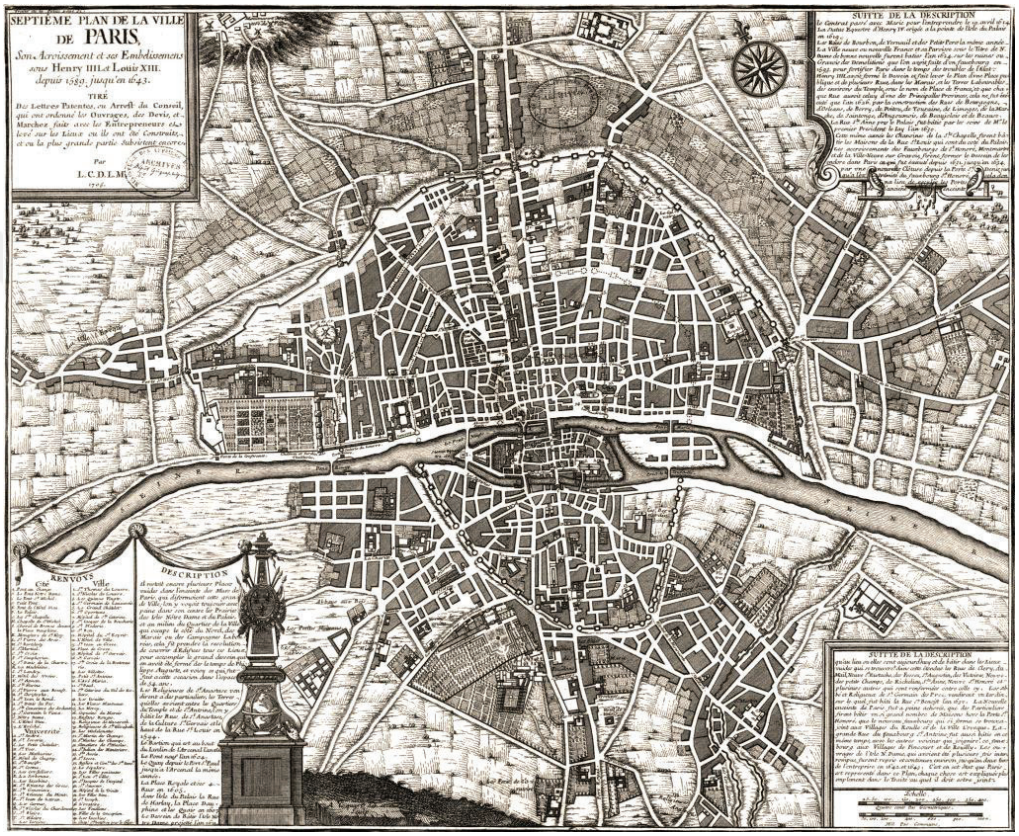


Figure 3.1. Map of Paris dated 1643

(Retrieved from:
https://arch100110echo2.files.wordpress.com/2014/11/paris16431.jpg?w=1024&h=838)

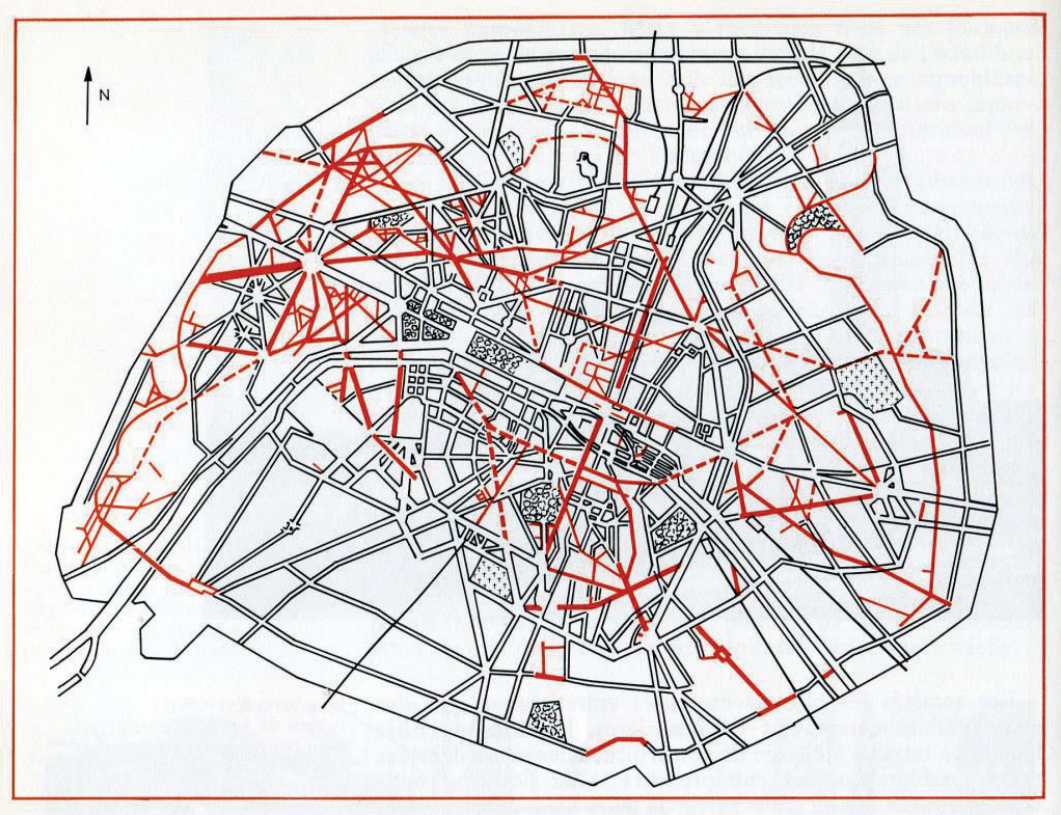


Figure 3.2. Red Lines show new road axes from the Haussmann's transformation project

(Retrieved from: https://arch100110echo2.files.wordpress.com/2014/11/1858_paristravaux_dubyp861.jpg?w=1024&h=788

Harvey (2004) mentions that the transformation process of Haussmann is pushed the urban poor to the periphery of the city. Moreover, he (2004) states that the gentrification of the city center caused the suburbs that formed in the Paris' periphery in later processes during the Haussmann period. David Harvey (2004) states about Haussmann's activities as following:

> "Haussmann's exploits in this regard have, of course, become one of the great legends of modernist urban planning. Backed by the Emperor and armed with the means to absorb surpluses of capital and labor in a vast program of public works, he devised a coherent plan to reorganize the spatial frame of social and economic life in the capital."

This trend initiated by Haussmann in Paris had has a trigger effect on the urbanization processes that started in all European cities. The reflections of this effect, especially increasing since 1870, are also called Haussmannization. Benevolo (1971) describes these developments as follows:

> "In France, many important cities were modified during the reign of Napoleon III. In Lyon, the prefect Vaisse, in office from 1853 to 1864, carried out a series of alterations that resembled the Parisian ones in miniature: the widening of the two parallel streets of the rue Imperiale and the rue de l'Impératrice, the quais (dock) along the Rhône and Saône, the park of the *Téte d'Or; Marseilles*, whose importance increased greatly after the work on the Suez canal, almost doubled its population and was completely transformed by the opening of the *rue Impériale* from the old port to the Joliette dock; similar straight roads began to be built in Montpellier in 1865 and Toulouse in 1868." (Benevolo, 1971, p. 81)

Moreover, Benevolo (1971) refers to Haussmann's influence and mentions other major cities of the world; after the transformation of Paris, the great transformation of the burgomaster Anspach in the lower part of the Brussels, the Emperor Maximilian's opening of *de la Reforme as an imitation of Champs Elysées* in Mexico City. Italy is one of the places where the process of transformation began with Haussmann's influence. By the increasing weight of the railroad in the city center, between the city center and the railway station, the main roads were built in the most important cities of Italy, like Rome, Bologna, Naples, Turin (Benevolo, 1971). However, the most substantial transformation in Italy was Florence. With Florentine being the capital for a short time, a significant transformation was initiated in the city, similar to Haussmann's policies (Benevolo, 1971).

While Europe's transformation is taking place with the effects of integrated transport networks across the continent, the situation in the Ottoman Empire is quite different. Despite their intention to integrate with Europe, they cannot hold the initiative to complement the planned transport system. The existing lines were made under the

influence of the economic policies of Europe towards the Ottoman geography (Yıldırım, 2001). As pointed out by Özten (2001), therefore, the Ottoman cities have a more stable life than the rest of Europe, and very few cities have railroads. On the other hand, the cities reached by railways could not fully integrate with railroads like European cities (Özten, 2001).

One of the main reasons for these transformations taking place in various parts of the world is the change of economic parameters (Bairoch & Goertz, 1986). In developed countries, there has been migration to cities in rural areas with industrialization, and large densities have occurred in the cities. These densities that occur in cities are one of the reasons for the acceleration of urbanization (Dyos, 1978). The urban population in the 1800s is about only 10.7% of the world's total population, 12.3% in 1830, and 23.6% in 1880 (Bairoch & Goertz, 1986). This ratio increased with the accelerating urbanization movements in the 19th century. While the ratio of urban population to total population was 35.7% in 1914, it has risen to 66.4% in 1980 (Bairoch & Goertz, 1986). This change has accelerated in urban areas due to the expanding urban population in parallel with economic developments. However, this change did not proceed at the same pace in non-industrialized and industrialized societies. Therefore, economic conditions have come to the fore as one of the most critical parameters of urbanization (Bairoch & Goertz, 1986).

As a result, the effects of the industrial environment created by the changing socio-economic conditions, technical progress, and the development of new infrastructures along with the effects of railways has created a paradigm-shift effect and has been a transformative force for urban space (Özten, 2001). Sometimes the power owners who want to direct the changing balances used the space to build the social order. The public sphere has seen not only as a part of the urban environment but also as the means that governments use to enforce their policies. Social order has been tried to be controlled by spatial transformation (Harvey, 2004). Public space is, therefore, the object and the subject of processes of transition in the transformed European cities (Özten, 2001). As highlighted by Keskinok (2019, p.30) as follows:

> "The contradictions and lifestyles created by production and the production processes have an acceptable developer and progressive aspect. Disengagement from production is one of the major reasons for the reactionary process in the cities. While the industrial labor force that breaks out of the city faces the problem of conservatism within itself, the cities, which experience the disengagement from production and organized through consumption, are transformed into the stage for reactionism and reactionary forces."

The reasons that Keskinok mentions lie at the basis of the problems Sivas faces today. As the production activities in the city decreased, the population decreased. The immigration of the educated section of the city and the modern opportunities lost have enabled the reaction to find an opportunity to rise over the years that has turned into a vicious circle. The revitalization of the enlightening effects of the Railway for social benefit will break this cycle. The Railway will, therefore, be a tool to solve many of the problems that Sivas is currently facing in the context of urban space, economics, and social integration.

3.1.1.2 Urbanization in Turkey under Influence of Railway

Considering the social and economic structures of cities, the vital role of the concept of transportation becomes clearer. According to Elker (1981, p. 3), the concept of transportation, in its broadest sense, is the group of systems that relocate the product, person, and goods in space and time. The quartet of people, goods, space, and time covered by these systems constitutes the basic fabric of the general socio-economic structure of societies. According to Bostanoğlu (1990), the forms and norms of production, distribution, consumption of each country system determine the circulation of people and goods in the interaction of a particular political ground of time-space. Therefore, the phenomenon of transportation stands out both as the

product and the affecting element of the underlying socio-economic structures of the countries. Although the phenomenon of transportation has different expansions and features both in national and urban scale, it generally constitutes a whole and displays an interactive structure (Bostanoglu, 1990, p.5). Thus, the urban space shaped by the effects of socio-economic structures is directly related to transportation (Elker, 1981).

Settlements such as cities, towns, and even villages located on the railway route in Anatolia have been affected by the new road systems. However, this impact was not initially in a strong relationship with the urban fabric. As highlighted by Aktüre (1981), the railroad that reached the city in the late 19th century cannot be considered to be a new opportunity or a technological development of transportation on the urban scale, except that it provided opportunities for production for the market on the regional scale. At the end of the 19th century, the railway, which runs through the level land or plain, was instituted in the Anatolian cities on the edge that adjoins the plain with the mountainous area and seems to be an unfamiliar element that was not integrated to the land use of the city. According to Özten (2001), there was a necessity to establish the connection of the railroad, which was an alien element to the Ottoman city structure and social structure, with the city center. As pointed out by Cengizkan (2004), with the arrival of the railroad to the Anatolian cities, station streets connecting railway stations to the city center began to be formed. The station street did not only connect the city to the railway but also connected the people of the city to Istanbul, and thereby, to the other cities of the world. These streets enhanced the position of the station structures that serve as the entrance gates of the city for the people who use the railway (Cengizkan, 2004).

With the establishment of railway connections to Anatolian cities, transformations started to occur in stable urban structures. With the connection of the station streets to the city centers, the functions of trade and administration have shifted towards the station streets (Özten, 2001). For this reason, the station streets became venues of attraction for the transformations that took place in the city. The spatial transformations began with the increasing activity and movement in the commercial

centers of cities. In addition, the new mode of transportation incorporated into the city affected the pattern of urban transportation, and the urban road scheme was changed. Thence, the direction of development of the city was affected by these changes (Aktüre, 1981). Due to the gravitational effect created by the station streets, the new administrative center was formed at the point where it was connected to the city (Aktüre, 1981). Although the railway campuses, which were mostly located in the urban periphery of the Anatolian cities, initially did not display an integrated image with the city, they became essential components of the cities over time. From the early Republican years onwards, their integration with the cities gradually increased. In this integration process, the station streets became the most critical urban element that enabled this integration (Özten, 2001).

The effect of railway transportation on the Anatolian cities has not always occurred with the same forms of influence throughout history. The spatial transformation evinced in the cities of Anatolia reached by railroad moves in the last period of the Ottoman Empire diverged from the spatial transformation realized by the radical transformation process after the proclamation of the Republic. In the early 20th century, the transformation in the trade structure and administrative institutions in the cities of the Ottoman Empire produced their own spaces (Özten, 2001).



Figure 3.3. The view of Ankara from *İstasyon Caddesi*, right after the proclamation of the Republic, 1925.

(Source: VEKAM Photography, Postcard and Engraving Archive, Inventory No: 0950.)

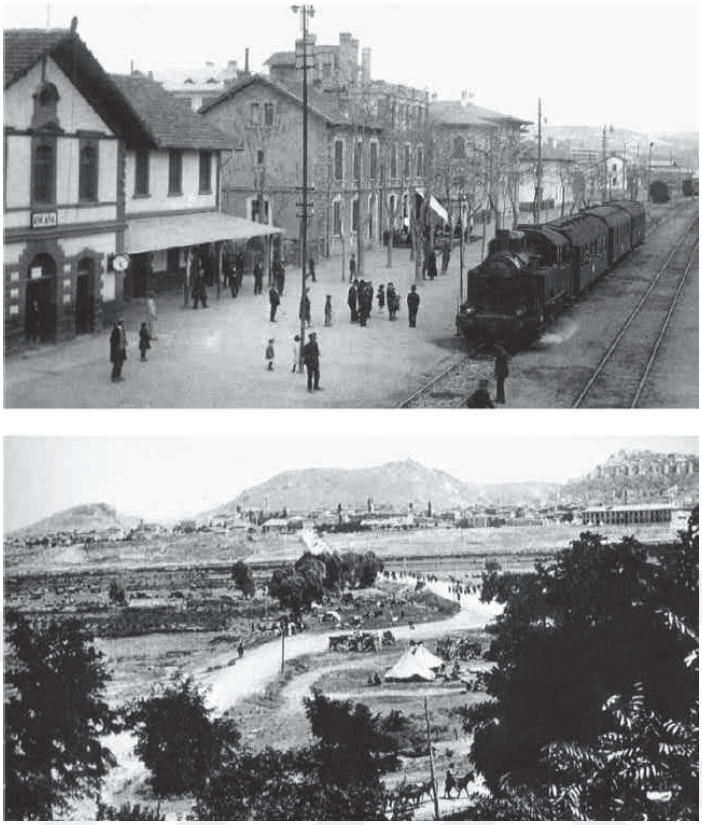


Figure 3.4. The early train station of the city and the connection road to the city center in the 1920s.

(Excerpt from Börtücene and Sağdıç (1993) by Çalışkan (2010))

The station streets that emerged in the late Ottoman period stem from the requirements other than the spaces offered by the general spatial context of Anatolian cities. The general appearance of the streets that emerged in these years presents a more organized and planned vision compared to the traditional organic forms of the cities. These streets can be considered as a more advanced form of the road compared to the old roads with its characteristics such as the formation of new building typologies around it and the possibility of providing access for the new transportation vehicles. However, despite these features, it could not go beyond being a wide and linear axis (Özten, 2001).

In this period, the idea of modernizing the cities gained prominence. In this regard, the models of the station streets came to the fore as the areas where modern spaces

of the city were formulated. In the Republican period, it was generally carried out with planning in order to create a more organized urban texture. Tekeli (1973, p. 264) says that:

> "In the Period 1923-1946, when the intensity of reaction to the results of the Ottoman social structure remained constant, the significant national objectives from the point of view of spatial organization were: modernization, abolition of the Ottoman image, reduction of imperialistic influences to a minimum, protection of a national industry, and the development of Anatolia. These were the criteria for choices in the spatial organization of the Republican era."

Bozdoğan (2001, p.9) remarks that similar to "most countries in Western Europe and North America, the modernization process in Turkey was not a profound societal experience arising from the 'great transformation' of the nineteenth century into an industrial, urban, and market-oriented order." In the early Republican years, administrators undertaking a modernist mission realized this modernization process through institutions, form, and techniques adapted from developed societies (Bozdogan, 2001). To better understand the spatial transformation in the Republican era, it is necessary to consider the spatial strategy in this period with its context and conceptual framework. The way the Republican ideology deals with urban space and its approach, in other words, the function it attributes to the urban area, is so important at that point.

According to Çalışkan (2003, p. 57), in the movements of modernism-progressivism, there is an effort to produce a new image that disclaims the old. This process of image production is directly related to the instrumentalization of space by power. The social perception of the space can be shaped in an effort to accept the moves made towards the space by society. According to Çalışkan (2003), with the new set of images aimed to be created, it is intended to reproduce the social identity and to found social memory. While the produced social identity is shaped on the axis of the nation-state,

the created images are reinforced with the values such as patriotism and independence that aims to create the self-consciousness of the nation. Çalışkan (2003) explains the process of transferring these values in question with the use of the space as an image transfer tool. As claimed by Connerton (1989), this spatialization takes place through urban structures and rituals in the construction of social memory and identity. Sargın states that, in the creation of social memory, monuments at different intersections and the design of public spaces created in their immediate vicinity are given importance instead of wholistic designs for the entirety of the city. These public spaces are supported by new social practices such as ceremonial uses (Sargın as cited in Çalışkan, 2003).

Çalışkan (2003) claims that in urbanization practice that started with the relocation of the capital from İstanbul to Ankara, spectacular, and monumental urban design aspects were not adopted. On the contrary, the emphasis on simplicity rather than monumentalism has characterized urban planning and design experience. (Keskinok, 2011). As highlighted by Keskinok (2011, p. 185), "monumentality was limited with monuments related with symbols of The War of Independence, revolutions, people and the army." This situation differentiates the Republican administration from other contemporary modernist regimes.

Modernist criteria also called visible politics in the practice of Turkey in urbanization, are a pure, universal, abstract, functional and simple stylistic language on the architectural scale, while similarity, order, legibility and controllability in urban space (Bozdoğan as cited in Çalışkan, 2003).

As remarked by Basa (2015), the urban space was considered by republicans as spaces to create their own distinctive spaces, so that traditional ways of living could be eliminated. Space was also utilized as a tool for the realization of the Westernization project, and it was assumed that the new working, social, and living spaces of society were the mechanisms of this process (Basa, 2015a). Similar to Basa's remarks (2015), Keskinok (2011) remarks that in the development process of urban planning, it was envisaged that public spaces should be designed as an

environment that would be shaped by the idealized Republican Citizen modern lifestyle. Keskinok (2011, p. 184) explains this situation with the following words:

> "This meant that the creation and development of publicness in the urban space, the break up from the feudal culture of the Ottoman Empire, and establishment of the institutions and spaces of the Republic. Transforming people into modern society, creating publicness and socialness in spaces is one of the ultimate objectives of city planning. Public buildings and spaces become the most important elements defining the cities."

In the Early Republican Period, as claimed by Tekeli (1998), the republican administration faced two major urban planning problems. These prominent problems are the need for reconstruction of the largely demolished, post-war Western Anatolian cities and the fact that Ankara is the capital and the necessity that the Republic must overcome the city planning challenges. According to Tekeli (1998), the success of urban planning was a criterion for the success of the Republican regime. That Ankara could not be established as a modern city would have indicated the failure of the regime. It came forward as another problem from the 1930s to actualize the modernization of the cities and other significant settlements in Anatolia, where the state enterprises were established in accordance with the model that was developed in Ankara (Tekeli, 1998).

In 1928, the "Development Directorate of the City of Ankara" (Ankara Şehri İmar Müdürlüğü) was established and equipped with efficacious authorization of planning and implementation (Tekeli, 1998). A plan for the city of Ankara was prepared by Herman Jansen, who won the planning competition that was held in the same year. The aim of this plan was to realize the modernization efforts of the Republic in the context of the spatial transformation and to meet the spatial needs of the capital, which had been witnessing an accelerated migration (Tekeli, 1998). In this process, the central government experienced the challenges of planning practice in a rapidly growing city. Another achievement that the government intended to gain in the planning process carried out for the city of Ankara is to create an exemplary

implementation project for the Anatolian cities. Bilsel (2007, p. 97) points out the idea behind the acts related to urbanization in the following words:

> "Ankara, located at the heart of Anatolia, was to become a motor for the progress and development of the whole country. The period that followed the foundation of the Republic is marked by the implementation of a comprehensive programme of reforms, not only at institutional level but also in the social and cultural domains. The construction of Ankara as the capital city had both a symbolic and strategic importance for the modernity project of the Republic. The new capital was to be constructed as a city that symbolized the modernity of the Republic. It would constitute a model for other urban centres, with not only its physical constructions but also its social and cultural institutions and the modern way of life of its inhabitants".

Although the modernization movement of the Republic, which Tekeli (1998) called the radical-modernity project foresees a planned development in other cities, the Anatolian cities did not show rapid growth in this period (Tekeli, 1998).

The "Ministry of Population Exchange, Development and Housing" (*Mübadele, İmar ve İskan Bakanlığı*) was the first institution established to carry out the zoning activities of the cities, which later delegated its powers to the Ministry of Interior (Çalışkan, 2003; Tekeli, 1998). In this period, urban planning activities were executed under the supervision of the central government.

Çalışkan (2003) points out that the first serious endeavors for planning were realized with the Municipality Law issued in 1930, General Health Protection Law (*Umumi Hıfzısıhha*) in 1930 and the Municipal Building and Roads Law (*Belediye Yapı ve Yollar Kanunu*) in 1933. (Geray et al., as cited in Çalışkan, 2003). The Law on Municipal Building and Roads obliged all municipalities to make plans or have them done. Furthermore, the authority of approval of the plan was given to the Ministry of Interior, and the planning process spreading throughout the country was centralized (Geray et al., as cited in Çalışkan, 2003). According to Çalışkan (2003), this law has the characteristics of a zoning guideline that presented the legal coding

and control of the urban image of the Republic by providing details of it. Moreover, the construction of buildings in cities was left to the monopoly of licentiates with the law enacted for the profession of architecture and engineering (Tekeli, 1998). In this period, two trends came to the forefront in urban planning practice and literature. One of them was the 'city beautiful' movement that focused on the physical form and aesthetics in the entirety of the city, while the other was the 'effective/practical' city movement that emphasized urban norms and zoning (Çalışkan, 2003). As claimed by Tekeli (1998), the obtained plans were modernist plans that disregarded the existing urban fabric, and thus, a controversy arose concerning their destructive impacts. Although it was desired to provide solutions for the entirety of the city with these approaches, they could only be applied in new neighborhoods and not in historical parts due to the limited economic resources of the municipalities (Tekeli, 1998). In addition, plans were made for the existing cities as well in this period. With such endeavors, it was sought to envisage the forms of the cities in the next fifty years, and the distinction of the old and the new city became prominent in these plans (Çalışkan 2003).

Yet another planning study was carried out for the new cities. The cities located at the prominent spots of the transportation network, the industrial cities, and the cities that had been destroyed by earthquakes were in the scope of this planning process. With the studies carried out for urban planning, zoning plans had been prepared for nearly seventy settlements until the year 1939 (Çalışkan, 2003).

The social dimension of the policies regarding space in the early years of the Republic also had an impact on the plans for the establishment of industrial cities. As was mentioned by Keskinok (2011), the contemporary setups for the living spaces of the idealized Republican Citizen who adopted to the modern lifestyle were not overlooked in the plans of the industrial cities. As remarked by Keskinok (2019), the spatial setup was intended to consolidate the modernizing effects of urban culture in the newly planned industrial cities and other cities where the industrial zones were attached to their peripheries. It was targeted to reinforce the progressive dimension of the industrial production culture with the service spaces devised for the labor

force. Cultural and biological progress to be attained through production culture would be integrated with the urban culture (Keskinok, 2019). In this way, the urban space of the idealized Republican Citizen would be generated.

Relations with the western states had begun to change since the late 1940s, and the economic and political consequences of the moves towards integration began to emerge in the 1950s (Tekeli, 1998). During this period, the process of getting into the foreign market of the economy of the country, which was trapped in the domestic market prior to the war, started with an emphasis on modernization in agriculture. As stated by Tekeli (1998), the statism policy that commenced in the 1930s was altered in the 1950s, and the liberal economic policy started to be pursued. The private sector began to be given importance within the discourse of liberalization (Yılmaz, 2004). In this new era, the statism policy was abandoned while the private sector was supported, and as a result, the introduction of new technologies and mechanization in agriculture accelerated the disintegration of the social structure in the countryside and intensified the impromptu immigration to the city (Yılmaz, 2004).

As argued by Yılmaz (2004), accelerated industrialization since the 1950s can be perceived as another reason for rural to urban migration (Yılmaz, 2004). With the establishment of railway lines, railway campuses were generally founded on the periphery of the city. Due to the convenience provided with easy access from the production sites to the transportation network, the established industrial structures developed around the railway campuses. Since the railroad areas created a point of attraction over time, cities started to develop in these directions (Keskinok, 2019). Thus, industrial areas and railway campuses remained in the city centers. The population increase in the city center became more prominent, depending on these developments.

On the other hand, as pointed out by Tumertekin (cited in Yilmaz, 2004), and the disguised unemployment caused by the scarcity of land and mechanization in agriculture prompted the village population to flow into the cities. That is to say, in

the process of urbanization, the cities were in the position to pull, whereas the villages were in the position to push. Yılmaz (2004) claims that including contributory factors such as education, the appeal of the city, or inevitable/forced migration to the abovementioned causes, a rapid increase in urbanization rates is observed.

In the early Republican period, the modernity project was a decisive factor in the legitimacy of the conditions that enabled urban development. However, as indicated by Tekeli (1998), in the face of the extent of the massive transformation that began to take place, it was witnessed that the administrations and a considerable portion of the individuals were far from having the capacity to fulfill these expected conditions. Thus, this transformation started to be realized with spontaneous solutions in accordance with the existing limitations (Tekeli, 1998). The cities experienced the problems of rapid growth due to the inadequacy of the present infrastructure. A vivid separation between the parts of the cities that developed in line with modernity and those that developed spontaneously became apparent, and the cities faced the problems of possessing a dual structure (Yılmaz, 2004).

As highlighted by Tekeli (1998), one of the institutional regulations legislated during this period was the foundation of the Bank of Provinces (*İller Bankası*) in 1947. It functioned as an institution that assisted municipalities in producing and financing the technical services in the project designing of infrastructure and planning. Tekeli (1998) claims that although the establishment of İller Bank created a significant capacity, it remained an insufficient move in the face of the momentous transformation experienced in the cities. Despite other arrangements made in the following years, the shanty districts and unplanned settlement areas were formed. For the rapid urbanization, a ministry specialized in planning, housing, and building materials was aimed to be established in order to formulate a convenient solution to this problem, and thus, the Ministry of Development and Housing (İmar ve İskan Bakanlığı) was instituted in 1958. The issue of planning was not only confined to urban planning but also included regional planning. In 1959, the subject of disasters was included in the responsibilities of this ministry.

Due to the impact of the constitutional amendments in the 1960s, together with the development of the conceptions of social and welfare state, which became prominent in the political agenda again, the state adopted a mission to meet the housing needs (Özaydın et al., 2010). In this way, it was tried to find a solution to the shanty districts in the cities. Besides, parallel to the democratization process, the efficiency of professional chambers and universities augmented; the concept of planning entered the country's agenda with the establishment of new institutions such as the State Planning Organization (Özaydin et al., 2010). During the period from the 1960s to the end of the 1970s, the principle of a "planned development" was re-adopted (Bilsel, A. & Bilsel, G., 2010). Furthermore, the introduction of the "holistic approach to planning" and "comprehensive planning" principles in spatial planning is yet another significant incident.

According to Bilsel A. and Bilsel G. (2010), it was perceived in this period that the solution of urban problems should be approached in different levels of planning, from the upper scale to the lower scale.

Furthermore, the idea that urban areas constitute a whole with their environs and that they should be dealt in accordance with all the relations within their entire urban area came to the fore. With the development schemes prepared at the regional scale, competitions were organized with the intention of “planning the whole city" for the large cities, which had the essence of being the center of attraction. Moreover, in this period, numerous "Urban Design Project Competitions" were organized, proposing detailed spatial arrangements at the local level in line with the priorities determined in the whole city (Bilsel, A. & Bilsel, G., 2010).

As stated by Bilsel A. and Bilsel G. (2010), the reasons for the organization of these competitions was to prevent unbalanced development between regions in the country scale. For this reason, a revision of the official policies of urbanization, immigration, and industrialization was aimed, and new policies were determined regarding a balanced distribution of the migration throughout the country which, then, was mainly from rural towards the metropolitan areas due to the irregular urbanization

(Bilsel, A. & Bilsel, G., 2010). Therefore, the common feature of the urban settlements covered by the competitions was their quality of being a regional center. It was targeted to create new centers of attraction in these urban settlements, which had a certain hinterland, a sphere of influence, and potential for development. The settlements included in the competitions opened from 1964 to 1972 are as follows: Konya, Erzurum, Adana, Sivas, Trabzon, Izmir, Zonguldak metropolitan area, Zonguldak-Kozlu-Kilimli-Çatalağzı, and Gaziantep (Bilsel, A. & Bilsel, G., 2010).

During the 1970s, the problems of urbanism experienced in the previous years persisted. Notably, the housing space of the poor and working-class became more insufficient. Slum areas that spread towards the peripheries and surrounded the cities posited a significant urban integration problem (Keskinok, 2019). The industrial zones that were moved out of the cities in order to have a cleaner environment, on the one hand, developed the existing slum areas; on the other, it triggered the proliferation of new shanty districts. This situation resulted in the intertwined relationship of the industrial and residential areas in a way that cannot be considered as healthy urbanization.

Considering the urbanism venture in Turkey, the post-1980 period stands out as a turning point. According to Tekeli (2009), there are three main reasons why the process since the year 1980 constitutes a different period. The first is that the population movements and the urbanization process reached their saturation levels. Another reason is that the economic order in the world was entering the globalization process. The third reason is the process of political transformation as a result of the September 12 *coup d'état* and economic liberalization due to the decisions of January 24. In particular, the effects of the mainstream understanding of the necessity of globalization fundamentally affected urban development in Turkey (Tekeli, 2009). Şengül (2001) describes the venture of urbanization until 1980 as the "urbanization of labor", while considers the subsequent period as the "urbanization of capital".

As pointed out by Tekeli (2009), population mobility from rural to urban areas prior to this period is considered as the transition from the agricultural economics society

to the industrial society. The effect of small and large industrial zones established around the city before 1980 began to emerge in these years. Production areas in urban centers were evacuated; moreover, banking, financial services, public and private institutions of public utilities, and audit institutions started to be seen in city centers. The distribution of industrial and business zones in the urban space changed, which transformed the transportation scheme in the city center. The change observed in the housing fabric in the city center is another dimension of the transformation experienced in this period; squatter areas in proximity to the city center have been replaced by multi-story buildings. Together with the increase in the use of individual vehicles, the squatter rings that formed the periphery of the city were outreached, and new districts founded by the high-income groups emerged in areas far from the center (Tekeli, 2009).

3.2 Industrialization Policies in the Early Republic Period

In the early Republican period, as the determinant of nearly everything, the republican government concentrated its efforts to the socio-economic development of the country in the continuation of military achievements in the period of the National Struggle, as stated by Atatürk. The intellectual foundation of the original structure was formed around the concept of rationality.

According to Halil İnalcık (1964), Max Weber emphasizes rationality as the most prominent characteristic of the Western civilization and emphasizes the concept of Western State. Conger (1993) points out that, according to Weber, Rational-legal authority represents a revolution against traditional tyranny. It aims to substitute the monarch's power with the majority's consensus. It creates bureaucratic systems based on the principles of competence, consensus, and rationality to support itself organizationally (Conger, 1993). Weber says that the rational-legal authority is a concept unique to the Western state. He states that the modern Western state is a

type of state that rationally organizes society for the welfare and happiness of the mass and strictly controls and regulates the agricultural, industrial, commercial and social structure and activities of communities. A logical and systematic approach to leadership is required for rational-legal authority (Conger, 1993). On the contrary, the traditional authority creates a system in which social issues are superficially managed with a mystic-based perception of law, explaining almost everything through supernatural forces (Spencer, 1970). Weber also argues that the Modern State has understood society's fundamental values, while the traditional state leaves all to destiny (İnalcık, 1964).

In this context, Atatürk has adopted the idea of a rational state intending to implement a regulatory state concept in economic and social life and culture. He wanted to establish a state understanding based on rational methods and rational law and, at the same time, continued to be effective at the grassroots level of society (İnalcık, 1964). It can be said that the ultimate goal of revolutions to be realized with this understanding of the state is to create a civilized society. However, to create such a community, it is not necessary to remove that society from its values but to reactivate its internal dynamics. At this point, it can be said that the basic principles of the republic as a more unifying and controlling understanding are formed around the idea of a nation-state. Three points are decisive here: the modernist perspective, the idea of the republic, and the understanding of the nation (Bilgin, 1997).

According to the government, the existence of a strong economy was essential in order to create a modern society. The Ankara government realized that financial independence could only be accomplished by using and managing the country's local resources. Financial autonomy was as essential as the political independence of the country for the country's development (Serin, 1965). Atatürk articulated these thoughts in the following phrases:

> "...Still, we shall have to attain very important victories. However, these are not going to be the victories provided with bayonets. The victories won by the Turkish Army are in themselves insufficient in giving us true

> independence. They can only provide a valuable and strong foundation for our further achievements. We must not be proud of our military successes, but we must prepare ourselves for new successes in the fields of science and economics." (Serin, 1965, p. 216)

> "No matter how great our political and military victories are, they can not be continuous, retreating in a short time if not supported by economic progress. Therefore, we must achieve our economic independence, and we must make it strong and develop it." (Serin, 1965, p. 217)

Thus the continuity of these three points was structured in new ways. First, the decision was made to create a nationalizing economy. An economy-based development program was given priority in the newly established republic. To ensure economic sustainability, the creation of the national economy was essential. The national economy to be created would be the basis of national unity and organization based on financial independence. The principle of *étatism* has been adopted with a pragmatic approach in order to achieve the desired economic independence (Yasa, 1980). It can be argued that *étatism* and populism is the sum of all financial and social policies carried out in the ideological struggle in the 1920s (Kipal & Uyanık, 2001).

İnan (1972) points out that the basic principle of the applied statism principle is to plan and operate large scale industrial enterprises by the government, and the private sector to operate under the direction and protection of the state. In order to prevent the loss of national assets and the advancement of national interests, the production activities to be carried out with own resources were very crucial. (İnan, 1972). In other words, in accordance with national interests, there is a complementarity connection between the government and private sectors. The mentioned policy was

pursued in the early years of the republic because of the challenging circumstances and the need for rapid growth (Tecer, 2007).

Serin (1965) points out that after all this intellectual activity, the First Five Year Industrialization Plan of the Republic of Turkey was developed to create an independent national economy. Various industrial investments were envisaged in line with this program. In this industrial plan, a development program was put forward for undeveloped Anatolian cities, which have not been able to go beyond the primitive stage of manufacturing (Serin, 1965).

İlkin and Tekeli (1982) noted that the increasing importance of the country's depreciated raw materials, making progress in agricultural problems where the world is experiencing challenges, creating new business sectors, and providing actions to improve people's purchasing power have emerged as priorities for this industrial plan. These goals determine the nature of the industry that conFigured. The main objective is to produce the most necessary materials (İlkin & Tekeli, 1982). Industrial activities that mentioned in the industrialization plans focus on the production of the material which can be produced with the resource obtained from Turkey. In this manner, it is considered to meet the internal market needs. In the 1st and 2nd Five Year Industrialization Plans prepared in 1932 and 1936, priority was provided to primary industries such as iron-steel, coal, and machinery (İlkin & Tekeli, 1982).

In order for the industrialization envisaged in the First Industrial Plan to operate in integrity throughout the country, it was of great importance that the transportation facilities were constructed successfully (İnan, 1972).

As İnan states (1972, p. 132), Atatürk's statement in a parliamentary assembly contained a critical sign of the current administration's transportation policies:

> "On the homeland with unfinished transport facilities, the elimination of social and economic shortcomings depends on the provision of railway transportation, first and foremost, at the beginning of each measure."

In the First Industrial Plan of the Republic, it was aimed to establish logistics and planning activities in an organized manner in order to ensure the continuity of industrial production to be established in many places in order to realize the targets found in the evaluation of the natural resources of the country, the use of human and material opportunities and the establishment of factories (Akalan, 2010).

Pre-Republican railroads already constructed for the extraction of the raw materials of the country and transfer to the ports as soon as possible, built for the imperialist capitalist needs of West, were nationalized (T.M.H., 2006). The lack of trained technical staff and the absence of large Turkish contractors, as well as the financing facilities provided by foreign firms, had influences for foreign contractors to dominate the whole railway program.

3.2.1 Development of Railways in Anatolia

3.2.1.1 Railways Before Republican Period

Rail transport became the primary facilitator of the stabilization of changes in the industrial revolution process and the propagation of the movement in the 18th century, the world's first public railway used in Britain in 1825 (Quataert, 1985). Later, its use spread rapidly in Europe. On the other hand, the introduction of the railroad to the Ottomans was at a period that could be considered faster than many inventions in the comparatively underdeveloped Ottomans after the developments of their era (Quataert, 1985). Although projects for railway construction prepared in the 1830s, construction started in the middle of the 19th century. Until 1914, more than 12 thousand km of railway lines operated in the Ottoman-dominated regions of Europe, Anatolia, and Egypt (Quataert, 1985). The consequences of this situation on Ottoman incorporation into the European economy, its power, and influence in the geographies under its administration have been positively reflected (Quataert,

2002). Foreign investors make up 90 percent of this railway network, the largest share of which belongs to the French capital. The required technical expertise also provided in Europe due to the lack of technological infrastructure. As a result of this situation, foreign capital investment had adverse effects, such as a growing dependence on Europe. The operation and supervision of almost all railway lines except this line were carried out by Foreign administrations. In addition to the technological and economic contributions from Europe, the necessary human capital was provided by the Ottomans (Quataert, 1985).

In the Ottoman Empire, the first movement on railway construction and operation began with the work done by the British (Albayrak, 1995). Upon starting to work closely with the Middle East, England sent particular officials to the Middle East to discover the region's potential for raw materials and resources. Francis R. Chesney is one of the officers who prepared this report. Chesney's report includes a detailed description of the region's characteristics and the idea of a Mediterranean-Persian Gulf railway.

As mentioned by Albayrak (1995), the idea that the railway line to Mesopotamia is a practical trade route has been accepted in about 20 years, and the Alexandria-Cairo railway line, which was initiated in 1851 and completed within five years, was the first railway line in the Ottoman territory. Although the Ottoman administration issued a railway laying concession from Iskenderun to the Persian Gulf in 1857 (Albayrak, 1995), this project could not be completed. The main factors that cause this situation are the difficulties of businessmen in raising the necessary resources and innovations such as the Suez Canal project (Albayrak, 1995).



Figure 3.5. the Railway project prepared by Francis R. Chesney

(Retrieved from: https://rayhaber.com/wp-content/uploads/2019/06/Chesney-Projesi.jpg)

In the same years, the areas of intervention of the British, who are in search of raw materials, in Anatolia also appear (Sezer, 2010). In order to take advantage of its raw material resources, the building of the first railroad took place in the Aegean region. It started between İzmir and Aydın with the concession granted to a British company in 1856 and the capital contribution of the Ottoman Government. Economic activity due to increasing agricultural and commercial activities on this line positively recognized by the Ottoman rulers. As a result, this mobility was allowed to jump into different areas, such as mining, municipal services (Sezer, 2010). At the same time, it is thought that thanks to the rapid transportation network to be built in the Aegean Region, where the internal conflicts prevail, the shipment of soldiers will be facilitated and the problem of public order in the region will be solved in this way (Sezer, 2010). For these reasons, it is inevitable that railway constructions, which are investments that the State cannot overcome, are given to foreign companies in succession.

A year after the İzmir-Aydin railway concession, the State granted the British a new concession in 1857 for the building of the Rumeli railway connecting Istanbul and

Europe's major cities across the Balkan Peninsula (Özyüksel, 1988). Therefore, the British restored the first railway opened up for transportation in the Empire's Anatolian-Rumelian lands in 1860 (Özyüksel, 1988). This line extends from Çeravoda (Boğazköy) on the Danube to the port of Constanta on the Black Sea. This project has been implemented to assess the potential of this geography that enables efficient agriculture (Ünal, 2009).

As stated by Ünal (2009), while the construction of the railway, which makes foreigners privileged in Egypt, the Balkans and the Aegean Sea, two critical developments come to the fore. The most important of these is the changing policies towards the railway. The importance of the palace administration and enlightened bureaucrats to railway construction has increased considerably (Bilmez, 2000). As a return to this perspective, the *Nafia Nezareti* (Ministry of Public Works) was established in 1865 (Ünal, 2009). Another critical development is the idea of connecting Mesopotamia to the metropolises of Europe via Istanbul through a railway network and transforming it into concrete projects and initiatives (Ünal, 2009). Consequently, with the concession granted to Baron Hirsch in 1869, concrete steps were taken to establish a railway line that would connect Istanbul to Europe (Ünal, 2009). Since then, this railway line has been called as *Şark Demiryolları* (Rumeli line) (Bilmez, 2000).

The lines often crossed from the roads of the Ottoman Empire, caused confusion in the Ottoman Empire, especially the railway lines constructed by Baron Hirsch were not fulfilled, and the desired goals could not be achieved in the Balkans (Özyüksel, 1988). Due to financial and security issues, the Rumeli line could not be extended to the Danube. This region's lack of railways has also changed the political environment. This situation has a significant effect on the defeat of the Russians and the inability to control the growing nationalist movements in the region (Engin, 1993). Due to the inability to develop policies appropriate to the changing political environment and other inadequacies, the Ottoman Empire lost a large part of the territorial and railway control in the Balkans (Engin, 1993).

Sultan Abdulaziz, who set out with the idea of knitting Asian lands with a railway network, defended the idea of establishing a railway line between Istanbul and Baghdad, which also has connections to the Mediterranean and the Black Sea. Mithad Pasha, the governor of Baghdad, was one of the most prominent defenders of this view. According to Mithad Pasha, the trade opportunity closed by Suez could have been passed into the hands of the Empire, thanks to Baghdad-Basra. He also thought that this line should be completed with state facilities (Albayrak, 1995). After the eastern railroad, by turning from the Balkans to Anatolia, the Ottoman Empire ordered the building of the railway line between Haydarpasa and Izmit between Istanbul and Baghdad. In 1872, German engineer Willhelm von Pressel was appointed as the general director of "Asian Ottoman Railways by Sultan Abdulaziz (Ozyuksel, 1988). The idea that the sultan lost confidence in private enterprises and that the political and economic interests of foreigners will create security problems plays a significant role in the design of the project as a state investment (Albayrak, 1995). Pressel has drawn a 4670 km long railway project with the mainline reaching Basra via Istanbul, Ankara, Sivas, Malatya, Diyarbakir, Mosul and Baghdad, and branches opening to the Black Sea and the Mediterranean Sea. Bursa section was completed in 1874 (Özyüksel, 1988).

Considering the additional connections designed in the mainline, the most striking aspect of this project was that the railway connects the ports of İzmir, Mersin, İskenderun, and Basra to the trade centers. Moreover, there could be a link between Istanbul, the center, and the inner parts of Anatolia, and the growth of agriculture, trade, and mining (Akbulut, 2012). However, with the technical problems experienced in railway construction and the slow progress of construction, the state entrepreneurship failed to complete this line.

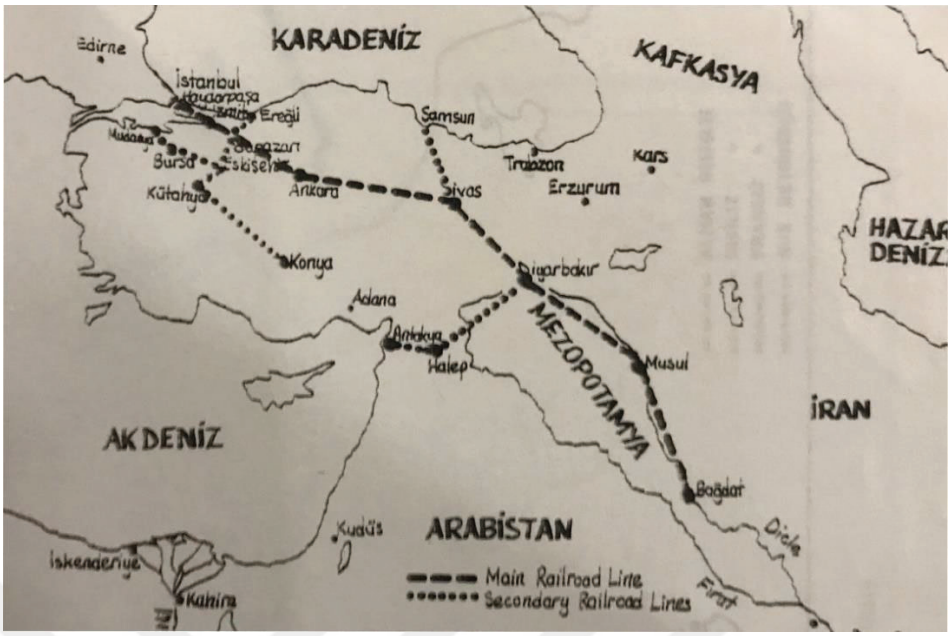


Figure 3.6. The first proposal for Baghdad Railway route prepared by Willhelm von Pressel's (Araz, 1995)

The railroad became the main instrument of the country's policy in the Ottoman Empire during the reign of Abdulhamid II (Akbulut, 2012). Most of the essential lines constructed during this period were realized with German capital, and 6303 km railway was constructed (Ürkmez, 2006). During this period, apart from the Germans, other foreign companies, mainly British and French, also presented railway projects to the Ottomans. Construction of various railway lines was on the agenda during Abdulhamid II's reign, but most of these projects remained at the stage of thinking and had not started (Akbulut, 2012).

One of the most critical railway investments in the Ottoman period is the Anatolian-Baghdad railway line (Quataert, 2002). Despite the political maneuvers of Britain, France, and Russia, which were disturbed by the increase in German influence in the Ottoman territories, the German company was granted a concession in 1899 for the construction and operation of the Baghdad Railway line. As a result, in 1902, the main contract was signed between the Anatolian Railway Company and the German

company (Ayten, 2014). The main reasons why the Ottoman Empire wanted to make these lines can be listed as follows: preservation of the current position of the population and economically developed cities of that period on the route and economic developments, the suppression of the riots in the eastern regions and ensuring the security of the region, most importantly against the Russian threat, a railway line in the east of Ankara, because of the ease of shipment of equipment and supplies.

With the course of Pressell's project, the Ottoman Empire would have the opportunity to benefit from the lands of Eastern and Central Anatolia. For example, the Ottomans were unable to benefit from this region because of the political environment and security issues in Diyarbakır, which had high agricultural potential, and control over this region was very weak (Akbulut, 2012). Moreover, Sivas and Kayseri were strategically crucial along the path proposed by Pressell. According to Akbulut (2012), for example, the trade route between Sivas and Samsun in 1888 is quite active, and the forces and supplies of the Fourth *Ordu-yu Humayun* are located in Sivas. Especially after the Crimean War of 1854-1856 and the Ottoman-Russian wars of 1877-1878, the city of Sivas received 11000 immigrants from the Caucasus and 6000 people from the Balkans (Abarju, 1999). By the year 1903, the population of the city reached 101148 (Özey, 2003). Despite the mentioned developments, the absence of the railroad prevented Sivas from becoming a more efficient logistics base (Akbulut, 2012).

After the agreement, the demands of the Ottoman side, demanding the formation of line construction in line with Pressell's proposal, were not accepted (Akbulut, 2012). The Germans determined the route of the Anatolian-Baghdad Railway to the south via the Eskişehir-Konya line. The other line that is planned to be separated from Ankara-Kayseri-Sivas-Diyarbakır and then via Sivas to reach Erzurum is the cost to increase the mountainous surface shape of the region compared to the south; The idea of opening the cities of Eskişehir and Konya to the settlement of the German population and cultivating wheat; Want to penetrate the British territory; They

ignored the expectation that they would continue their strategic cooperation with Russia historically (Akbulut, 2012).

The failure to build the eastern branch of the Baghdad line was in the best interest of Russia. While the Anglo-German rivalry continued in Western Anatolia, Russia found a political gap in Eastern Anatolia and moved more quickly. Russia, which armed the Armenians living in Anatolia, extended the Caucasus Railway to Sarıkamış in order to settle in the region (Akbulut, 2012). As in the case of the city of Kars, along the routes reached by railroad, Russia directed construction works. In 1900, Russia received the privilege of constructing the line extending from Ankara to Kayseri, Sivas-Diyarbakır, and Van. The idea of Russia's persistence in Eastern Anatolia could not be realized and withdrew due to the administrative problems caused by the Bolshevik Revolution in 1917 in its own country. However, Russia has been prevented from reaching the east by rail for a long time with the policies it followed.

In 1903, the 200 km long line connecting Konya to Bulgurlu started to be built as the first part of the Baghdad Railway (Akbulut, 2012). The construction of this line was completed in almost two years. The Baghdad Railway project failed with the financial difficulties coupled with the political crisis that began with the 1908 revolution and started with the deposition of Abdulhamid II. However, the construction of the Baghdad Railway line continued until the First World War. (Albayrak, 1995).

As mentioned by İlkin and Tekeli (2003), the Hejaz Railway project is one of the most critical stages of the railway activities in the Ottoman period. This line is funded by the State. In the emergence of the project, the aim was to prevent the increasing British activities in the Arabian peninsula and to control the feudal structures in the region as well as Abdulhamid's thoughts on providing political unity in Islamic geography (İlkin & Tekeli, 2003). The first line extending from Diyarbakır to Medina in 1908 was completed with the works that started in the 1900s (Sezer, 2010). In 1914, the Hijaz Railway line constituted the most significant part of the

Ottoman territory (Schoenberg, 1977). Besides, during the construction of the line, except for a few foreign experts, local engineers who graduated from Ottoman schools worked. The construction work was carried out by soldiers from the army (Schoenberg, 1977). According to Schoenberg (1977), the construction speed of this line is very close to the construction speed of foreign companies. This line, which was completed in 8 years, cost almost half of the cost of the lines built by foreign companies. Furthermore, it is also essential for the successful execution of such a complex organization in 8 years (İlkin & Tekeli, 2003).

One of the crucial developments in the Ottoman railways is the Chester Project. Shortly before the start of WWI, a railroad project was prepared and presented to the Ottoman administration by the USA, which wanted to exist in the control struggle of the oil fields in the Middle East (Akbulut, 2012). The scope of the project is a railway line that will be connected to Süleymaniye via Sivas, Harput, Ergani, Diyarbakır, Mosul, and Kirkuk. In addition to this line, which will connect the Eastern Anatolia Region from north to south, there are alternative connections such as an arm extending to Samsun, an arm extending to the Mediterranean Sea via Aleppo, and another branch extending to Van via Bitlis (Yavuz, 2003). The most important part of this initiative is to abandon all underground resources to the USA within 20 km of the approximately 2000 km long railway to be built on both sides (Yavuz, 2003). Essential factors in the creation of this project are the copper deposits and the Mosul oil in the Ergani region. However, this project, which would create a direct problem for the policies of British, German, and Russian politics on Anatolia, was stopped as a result of the oppression of these states against the Ottomans (Can, 2016).

At the beginning of WW I in 1914, there was 5411 km of the railway network on Ottoman land. Approximately one-third of these lines belong to the Turks (Özdemir, 2001). The building continued because of the strategic importance of the lines during the war, and even the construction turned to military purposes. Except for the Anatolian-Baghdad line, all railways were built and operated for military purposes (Özdemir, 2001). The works in Southern Anatolia, in particular, are essential to support the Iraqi front. For this reason, the works here continued until the end of the

war (Özdemir, 2001). The most significant measure of the Ottoman state when it entered the war was the creation of the Military Railway Administration and the capture of other countries' lines (Özdemir, 2001). During this period, there was no other construction activity of "*Askeri Demiryolları ve Limanları İdaresi*" other than the ongoing activities in the Toros region and the partial railway construction between Ankara and Samsun (*Ulaştırmada 50 yıl*, 1973). Moreover, the cease-fire agreement, which was signed with the end of the war, was a major blow to the transportation structure of the Ottoman Empire. One of the first applications of the winning party is the occupation of the existing railway lines within the Ottoman territory (Özdemir, 2001).

It is observed that the only transportation that is strategically suitable in Anatolia is the railroads during the times of the Independence War (Ünal, 2009). In this period, the general condition of railways in technical, financial, and operational issues is quite problematic. All lines and important tunnels were occupied after the armistice. As mentioned by Ünal (2009), a significant part of technical equipment such as locomotives, passenger wagons, and freight wagons in the existing machine stock of railways needs repair. Apart from the maintenance and repair challenges of the machines used, there is also a shortage of fuel and trained technical personnel. Besides, the application of increased tariffs in areas under the administration of the Entente Powers has also created economic obstacles (Ünal, 2009).

The construction and operation of the State railways took place during the War of Independence. The work paused during the armistice did not change until the end of March 1920. In the next process, one of the main focus of the actions of the Kuvayi Milliye movement, which resisted the occupation activities, was the occupied railways (Özdemir, 2001). After the invasion of Istanbul, the action was taken to support the struggle that shifted to Anatolia (*Ulaştırmada 50 Yıl*, 1973). Thus, some railway lines were taken back (Ünal, 2009). Especially for the operation of these railways to meet military needs, and their maintenance and repairs, the Representation Committee seized all the railroad lines in Anatolia, except for the enemy invasion, through an order published on 23 March 1920 (*Ulaştırmada 50 Yıl*,

1973). Later, the directorate in Eskişehir was taken back from the British. On 19 July 1920, by the decision of the Turkish Grand National Assembly, the government established a temporary directorate in Eskişehir under the name of '*Anadolu Şimendiferleri İşletme Müdürlüğü'* (Anatolian Railway Operation Directorate) for the management of the lines in hand (*Ulaştırmada 50 Yıl*, 1973). As stated by Ünal (2009), the date 29 Mart 1920 can be regarded as the foundation date of the national railway system for Turkey. With the decision published after the establishment of the TBMM Government, all the enterprises of the Anatolian Ottoman Railway Company in the regions under the control of the National Government were taken (Ünal, 2009).

There are differences in terms of transportation structure between the period in which the first developments were experienced in railway transportation in the Ottoman Empire and the period passed to the early Republican period (Semiz, 1995). When a general evaluation about the imperial period is made, it is seen that the most fundamental determinants, military and economic purposes, cause road construction (Semiz, 1995). However, when the conquest period was over, it was observed that the transportation network, which was formed according to the armies' strategy and fed with economic factors, required maintenance and could not be developed (Semiz, 1995).

As pointed out by Schoenberg (1977), the activities for rail transport before the Republican era are related to the railway system serving in the hinterland, which is generally carried out and created by foreign capital entering the country. According to Schoenberg (1977), the recent railway initiatives of the Ottoman Empire had positive consequences such as connecting Anatolia and Rumelia to Europe, with the increase of agricultural production; thus, the farmer's accessibility to the market had strengthened. So the lands on which they lived had gain value. However, the fact that foreigners operated it in a profit-oriented system and that the state dealt with military and political interests rather than economic interests caused the railways to be out of control (Schoenberg, 1977). While railways serve the capitalist economy in areas defined by foreign capital, the highway system has not been able to function as a

secondary transportation system, which can be used for military and economic purposes (Schoenberg, 1977).

The railways under the domination of foreign capital are not entirely associated with each other; hence, improvements in the conditions of the people living in the Anatolian countryside could not be achieved (Semiz, 1995). In addition to that, the highways formed by the government's public works programs were not sufficient to create an environment that would trigger the transformation of the countryside at the beginning of the 20th century. As a result, the rural development was not possible with the increase of agricultural production and the establishment of the necessary infrastructure, because of the transportation network shaped by capital (Sezer, 2010). In addition to the economic and political problems, the inadequacy of the transportation network has also caused an administrative weakness. For this reason, urbanization processes, like the vital facilities of Anatolian settlements, could not progress positively (Sezer, 2010).

3.2.1.2 Railways in the Republican Period

The transportation problem that started from the mid-19th century and continued until the early 20th century in the Ottoman Empire evolved to a different dimension in the post-Ottoman period. With the declaration of the Republic, different factors came into play in the way of handling the railway system. In addition to the variables in production technologies, foreign relations, and social stratification, ideological structuring has an impact on that process (Sezer, 2010). In other words, the meaning attributed to the concept of transportation in the Early Republican years is shaped by populist and statist approaches, along with economic reasons (İnan, 1972). It was thematic as a vital element of the transformation, which would have profound effects, especially in the Anatolian countryside. According to Sezer (2010), road constructions were seen as a foundation on which technological, industrial,

agricultural, cultural, and social developments will be built as well as being a complementary activity of the national union. For this reason, it was believed that Anatolia, which was marked as the 'land of the national essence,' should be surrounded by the transportation network, which was shaped by the integration of the railroad and highway. Besides, initiatives for transport integrity can also be evaluated in the sense that the early republican period attributed to the countryside (Sezer, 2010).

The transformation of the transportation system in the Republican period took place based on the railway and highway (İlkin & Tekeli, 2010). According to Sezer (2010), the dynamics of this transformation are directly related to the changing power structure in the National Struggle years. The transition to a petty-bourgeois origin representation consisting of the military-civilian intellectuals from the Ottoman government, which was open to external influences, and the Anatolian people, is important at this point (İlkin & Tekeli, 2010).

In addition, the Treaty of Lausanne, which was signed just before the proclamation of the Republic, and the economic crisis of 1929 and the change in the structure of power created conditions that allowed the newly established Republic to act more freely and in line with its interests (İlkin & Tekeli, 2010). The railway policy, which runs in parallel with this political change, has evolved from the structure that is based on the interests of foreign powers to a structure designed to stimulate the domestic market and ensure its continuity. As pointed out by İlkin and Tekeli (2010), the pre-Republican railway structure was created with a 'tree-type' road scheme that developed according to semi-colonial relations without establishing a connection with each other. The Republican period railway system was designed as a network where the lines were connected (İlkin & Tekeli, 2010). In short, the railway structure has evolved from the 'tree diagram' form to the 'web diagram' form. This network structure was tried to be developed to connect the most important regional centers of the country to each other and the ports (İlkin & Tekeli, 2010).

According to İlkin and Tekeli (1982), the first factor shaping the transportation policies of the Early Republican era was to establish a chain of economic relations within the country and accelerate development. In order to meet the demands of the national economy, the existence of a well-functioning railway network was considered vital (Yıldırım, 2001). Therefore, the primary target of the policies was to establish railway infrastructure in underdeveloped regions as well as in developed regions (Yıldırım, 2001). On the other hand, the dominant role of a well-functioning transportation system in ensuring national integrity was emphasized (İlkin & Tekeli, 2010). The mentioned system was defined as follows:

> "... first of all, it should shorten the travel time between the settlements, making available idle resources by accessing the places that cannot be accessed within the borders of the country. it should be served the defense of the country, security, and country development, and ensure the spread of culture, art, and education." (As cited in Sezer, 2010; *Bayındırlık İşleri Dergisi*, 1935, p. 9-10).

The transportation policy determined within the framework of these objectives has been developed with an approach that prioritizes railway transportation and foresees the highway as a secondary system (İlkin & Tekeli, 2010). Although it was desired to develop railways and highways simultaneously in the early republic period, it was impossible to achieve this due to financial reasons (İlkin & Tekeli, 1982). Also, according to İlkin and Tekeli (2010), there was a possibility that the railway will be insufficient in terms of opening every point of the country to large markets and ensuring integration within the country. However, they (2010) added that the planned railway network could be seen as adequate for the period when the Republic attaches importance to state-owned industrialization. This system was sufficient to ensure industrialization, to distribute the established factories within Anatolia, and to function as the capital of Ankara (İlkin & Tekeli, 2010).

One of the distinctive points of the railroads built during the Republic period was the regions where they constructed. (Yıldırım, 2001). Railway activities in the regions of Central Anatolia and Eastern Anatolia, which were neglected during the Ottoman period, gained importance during the Republican period. Until the Republican period, there are only railway lines like Erzurum-Sarıkamış-Kars region and the southern border of Baghdad road outside of Western Anatolia (Yıldırım, 2001). Besides, after Ankara became the capital, this city did not have connections with cities such as Sivas, Samsun, Erzurum, Kayseri, Malatya, Diyarbakır. However, it had a railway connection with cities such as Istanbul, Izmir, Aydin, Eskisehir, Konya (Yıldırım, 2001). For that reason, the railway construction business started with the establishment of the transportation of these cities, which have no connection with Ankara, to the capital (Yıldırım, 2001).

Railway constructions are divided into three phases in the early Republican period. Between 1922 and 1927, solutions were focused on providing urgently needed facilities (İlkin & Tekeli, 2010). It was aimed to establish a system that will create a network scheme that will enclose the whole country, and also establish connections to the ports. Therefore, railway constructions were carried out in narrow geography with limited possibilities in the period of 1922-1927 (İlkin & Tekeli, 2010). One of the critical developments in that period is the involvement of Turkish contractors in railway construction processes. For the first time, Turkish contractors played a role in the construction of the railway. Thus construction began with Samsun-Sivas and Ankara Musaköy lines after 1924 (İlkin & Tekeli, 2010).

In the second phase covering the years between 1927-1933, railway constructions were carried out by foreign companies (İlkin & Tekeli, 2010). Because of the idea that Turkish companies will not be able to complete the required lines in a short time due to the lack of technical equipment and financial resources, foreign capital has taken these projects. In the 1930s, the fact that the railroads built by foreign companies caused domestic borrowing caused a change in the method followed for rail construction (İlkin & Tekeli, 2010).

In the third period between 1933 and 1948, an important step was taken in the nationalization of the ongoing construction activity. İlkin and Tekeli (2010) noted that after the Malatya-Çetinkaya and Sivas-Erzurum Lines were put out to tender in 1933, the activity of Turkish contractors in this field started again. American Fox Company, Abdurrahman Naci and Simeryol Group participated in the tender. In the tender for new lines that need to be more affordable, a private enterprise group has managed to take over the construction of the entire line for the first time (İlkin & Tekeli, 2010). After that, Turkish companies won all the tenders. That has been a turning point in railroad construction, as it indicates the transition to domestic capital and labor (İlkin & Tekeli, 2010). According to Sezer (2010), this situation can be evaluated among the results of supporting statist policies and initiatives based on national capital shaped in the post-Great Depression process. The statist ideology, adopted for economic reasons, has been nurtured by nationalist ideas. This situation had important effects on railway construction, which was attributed great importance to the development of the country (Sezer, 2010).

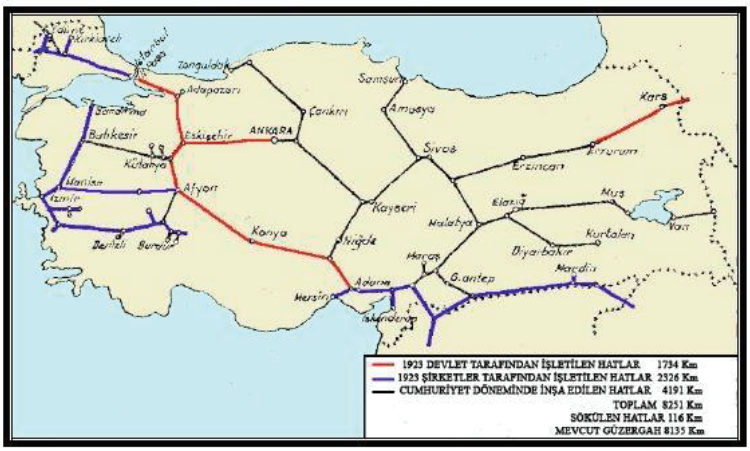


Figure 3.7. Railways in Anatolia in 1948. Red lines shows the lines under state control; blue lines indicate lines operated by private institutions

(*Ulaştırmada 50 Yıl*, 1973)

As Şen (2003) stated, one of the biggest problems regarding the existing transportation systems in the early Republican period was that the railway system left from the Ottoman Empire was under the management of foreign capital. (Şen, 2003). In line with the policies mentioned above of the newly established Republic, the purchase of the railway lines that were owned by foreign enterprises was an important milestone as activity towards the nationalization of the railway (Şen, 2003). One of the situations that caused the "nationalization" movement of foreign lines is the tariff system applied in the lines of foreign enterprises (Yıldırım, 2001). As remarked by Yıldırım (2001), there was a gap between the tariffs in the distribution of goods produced abroad and domestic products in Anatolia. Due to the increase in costs, the transportation system had entered an economically unsustainable process (Yıldırım, 2001). Therefore, the purchase of railway lines within the country is directly related to the nationalization dynamics of the early republican period (Şen, 2003).

Those lines, which are not in organic relations with each other, are aimed to be gathered under a single administration (Şen, 2003). However, while building a railway, purchasing existing businesses has become more difficult due to financial inadequacies (Şen, 2003). However, it was decided that the state should purchase the lines operated by foreigners for reasons such as creating a security problem and continuing to receive service for their own economic interests in the regions they pass (Şen, 2003).

With the law numbered 506 dated 24 May 1924, a structuring was made to nationalize the existing lines, and the *Anadolu-Bağdat Demiryolları Müdüriyeti ve Umumiyesi* (General Directorate of Anatolian-Baghdad Railways) was established (*Ulaştırmada 50 yıl*, 1973). In addition to the right of eminent domain, this institution was also given the authority to manage and operate the nationalized lines (Özdemir, 2001). This decision is also crucial for the institutionalization of moves for the management of Railways. Later, with the law numbered 1042 dated 31 May 1927, which was enacted to carry out the construction and operation of the railroads together, the name of this institution was changed to *Devlet Demiryolları ve Liman*

İdaresi Umumiyesi (General Administration of State Railways and Ports). The organization took its name *Türkiye Cumhuriyeti Devlet Demiryolları / TCDD* (Republic of Turkey General Directorate of State Railways Administration) by the law numbered 6186 dated 22 July 1953 (*Ulaştırmada 50 yıl*, 1973). This institution has been an institutionally legal entity and financially an independent budget organization (Özdemir, 2001).

Nationalization of Railways

After the establishment of General Directorate of Anatolian-Baghdad Railways in 1924, Port of Haydarpaşa was purchased following the contract provisions (*Ulaştırmada 50 yıl*, 1973). With this law, the authority of purchasing was awarded to the national government for Anadolu-Bağdat, Haydarpaşa-Ankara, Eskişehir-Konya, Arifiye-Adapazarı lines. However, it was not possible to achieve these goals in the same year. The line between Sarıkamış and Arpaçayı was first put into operation in the state in 1927, and the Anatolian Line, which has strategic value, was purchased in 1928 (Özdemir, 2001). Also, expropriation activities were not limited to lines owned by foreign companies. As pointed out by Araz (1995), the Samsun-Çarşamba line, built by the local company between 1924-1926, was bought by the state in 1933. In addition, the Ilıca-Palamutluk line, which was built by a local company in 1941, was also expropriated in the same year. These events show the scope of transportation policies carried out to establish national and unified railroad networks (Araz, 1995). The vital part of a transportation network that serves national goals under the supervision of the state was completed through purchasing activities that continued until 1948 (Sezer, 2010).

Nationalization of the Existing Railway Network	
Line	Nationalization Year
Anatolian Railroad	1928
Adana-Fevzipaşa	1933
Sarıkamış-Arpaçayı	1927
Mersin-Adana	1928
Mudanya-Bursa	1931
Samsun-Çarşamba	1933
İzmir-Kasaba	1934
İzmir-Aydın Railroad	1935
Oriental Railroad	1937
Toprakkale-Payas	1937
Fevzipaşa-Meydanekber	1937
Ilıca-Palamutluk	1941
Cenup Railroad	1948

Figure 3.8 Nationalization of the existing railway network

(İlkin & Tekeli, 2010)

Railways Constructed by the State

While expropriations for the existing railways were made until 1948, there were also attempts to establish new railway lines (Yıldırım, 2001). A large part of the railways in Anatolia used today was built between 1924 and 1947. Railway construction activities between these dates were disrupted only in two periods; with the effects of the Great Depression in 1929, railway activities between 1931 and 1934 came to a standstill, and because of the outbreak of WWII in 1939, railway construction could not be done until 1945 (Araz, 1995).

As mentioned by Araz (1995), principles that were dominant in the construction of new railway lines have three fundamental stages. Railway activities initially served the purpose of establishing links between strategically located and big cities in the east of the capital and the Middle and West Anatolian regions. The second significant objective was to provide connections with the railway lines built before the Republic. Another notable point was to create a line between Middle Anatolia and the Black Sea (Araz, 1995).

Considering those principles, it is understood that the plans for the railway have a vital dimension to provide the logistics of the industry that would meet the basic needs of the country (Ayten, 2014).

During the railway construction process, priority has been given to Ankara-Kayseri-Sivas and Samsun-Sivas lines (Yıldırım, 2001). Ankara-Sivas line, which stands out as one of the most important parts of the Baghdad Railway line, which was initially planned with the concession given to the Germans in 1899, has not been realized due to the effects of international policy. The first 80 km of this line was opened in 1915, but the next phases were not built due to WWI effects. The Ankara-Sivas line also stood out as the most critical line in the Republican era (Ayten, 2014). In the WWI process and the National Struggle period after that, the difficulties of the absence of a railway line extending to the east of Ankara were experienced (Araz, 1995). Although the line was originally intended to be built for military purposes, the route of it was changed due to economic benefits in the following period. The Ankara-Yerköy section of the line was completed in 1925, and then Kayseri was reached in 1927. Then, the 602 km long Ankara-Kayseri-Sivas route was completed on August 30, 1930, with 36 tunnels in total (Ayten, 2014).

Samsun-Sivas line, on the other hand, was another weighty line that was launched in the early Republican era due to the connection of Middle Anatolia to The Black Sea Port. The construction that started in 1924 lasted seven years, and a 372 km long railway line has been achieved (Ayten, 2014). Because of the geographical barriers,

construction time, and money spent was more than the government planned (Ferit, 1932).

Kütahya-Balıkesir line, on the other hand, was designed as a more effective route than the existing roads that will connect Ankara with Western Anatolia (*Demiryolları Mecmuası*, 1928). The construction, which started in Kütahya in 1925, was completed with a 242 km railway built until 1932. Thus, the 954 km transportation distance between Ankara and Balıkesir has decreased to 592 km. It has become one of the most critical lines built in the early Republic years, as it is the shortest line that provides transportation to Ankara's Western Anatolia (*Demiryolları Mecmuası*, 1928).

Sivas-Erzurum line, as İlkin and Tekeli (2010) stated, is another important line that started for the first time with the award of a local contractor group. This line has the route of Sivas-Çetinkaya-Divriği-Erzincan-Erzurum. According to the plan, it was envisaged that this line would merge with a line around Çetinkaya, where Middle Anatolia would be connected to the South (Dervişoğlu, 2008). The Sivas-Erzurum line, which started the construction process in 1933, was completed sixteen months earlier than the planned period and reached Erzurum in 1939 (Ayten, 2014). Notably, in some sections of the route have been worked entirely with the workforce, because of the geographical obstacles in the Divrigi region. In some parts, there are tunnels up to 23 km long (Çalapverdi, 2008). Considering such details, the completion of the construction of this line by the Turkish contractor group sixteen months earlier than planned time was interpreted as a significant achievement in terms of Turkish engineering (Dervişoğlu, 2008).

Besides, the Sivas-Erzurum line is also crucial for the industrial structures planned in Anatolia. The iron extracted from the Divriği mines on the route through which the line passes were transported to Karabük thanks to the railway, and the raw material required for the Iron and Steel industry was met (Çalapverdi, 2008).

On 29 October 1933, which was the tenth anniversary of the Republic, the construction of the Çetinkaya-Malatya line started (Ayten, 2014). It is an essential

line in terms of linking the Middle Anatolia region to the South harbors and the Southeastern region. That line was opened for business in 1937 (*Demiryollar Dergisi*, 1937). This construction was completed earlier than expected. With the completion of the Erzurum line in 1939, a railway transportation opportunity was created in the East-West and North-South directions in the Anatolian Lands. Sivas, which is located at the intersection point of these two different axes, has become a hub. Thus, Sivas has become one of the most critical points in the national railway network.

To reach to the borders of the country through railways was one of the goals in the Republic's railway policy. For this reason, the railway line to be built in the east of Diyarbakır was very important (Ayten, 2014). The foundation for the railway line to be established between Diyarbakır and Kurtalan in 1937 was laid with a ceremony attended by Atatürk. With this line, it was aimed to reach the borders of Iran and Iraq. The completion of this line was delayed due to the WWII that erupted in 1939. In 1944, the 144 km section was completed (Ayten, 2014).

Railways Constructed by the State

After 1948, the government started to focus on the highway in transportation policies; therefore, railway transportation was in secondary importance. In the period after 1948, no prominent activities such as railway line construction during the early Republican period were observed.

After 2004, renewal studies were initiated on the railway network due to the technological inadequacy of existing railway lines, inefficiency in terms of economy and time (TCDD, n.d.). Through these investments, it was aimed to improve the railway network at a level that could not be an alternative to the highway. Transportation activities have been carried out for long years with conventional long-distance rail lines with long travel times. It is planned to be carried out in almost half

the time of highway transportation with shorter routes via high-speed railways to eliminate those problems.



Figure 3.9 Current situation of Turkish Railway transportation network

(Retrieved from: https://www.railwaypro.com/wp/contracts-awarded-for-ankara-izmir-hsl-section/)

First, various projects were prepared to create high-speed railway lines between the big cities of the country. Ankara-Eskişehir-İstanbul, İstanbul-Eskişehir-Konya, Ankara-Konya, Ankara-İzmir, Ankara-Sivas-Kars lines are planned to be completed and commissioned within a short time (TCDD, n.d.). However, there have been some delays in some projects. The construction of most of the lines started in 2004. First, of these lines, Ankara-Eskişehir line was opened for use on 13 March 2009. Later, while the Ankara-Konya line opened in 2011, the Istanbul-Konya line became operational in 2013, and the Ankara-Istanbul line became operational in 2014 (TCDD, n.d.).Moreover, the construction of some critical lines is still ongoing. The Ankara-İzmir line is also planned to be completed in 2023. The Ankara-Sivas line, which started to operate in 2009, is planned to be operational in 2020. Thus, an essential step of the high-speed railway system to be established on the east-west axis of Anatolia will be completed (TCDD, n.d.). As of today, the total length of

12803 km in the railway network in Turkey; 11,590 km of these lines are conventional lines, and 1213 km are high-speed lines (TCDD, n.d.).

The developments about the New Silk Road project, which has been discussed since 2013, reveal the importance of the high-speed railway network. This project aims to increase economic mobility between Asia and Europe (Lin, 2011). Turkey has a critical position in this project because of its geographical position. In recent years, the Turkish government held several meetings in order to be included in this project. In the event of the project, the railway may have roles for an economic and social transformation in Anatolia with the effect of Globalization.

3.2.2 Railway Industry in Turkey

In the early republican period, as a result of a need for economic integrity, industrial efficiency, the ability to be mobile, high and advanced military services, it was required that sound and comprehensive transportation line. Therefore, the need for railway transportation had come to the forefront. The transportation system needed to work effectively without any disruption. To achieve that efficacy, it was necessary to set a railway infrastructure, which is technologically equipped and capable of adapting itself to contemporary technological developments (Tezel, 1982).

Thus, the maintenance and repair of the industrial materials that were used in TCDD railway management such as, wagon, passenger wagon, railway infrastructure, came to the forth as the main problem of the period.

Besides, the sustainability of the policies of this newly established republican state was, if and only possible through the accomplishment of a self-feeding infrastructure, which was not mainly dependent on external resources. However, on the contrary, almost all the needs of the railway management, what constitutes the essence of the economy of this growing Republic, were mainly provided from outside; Belgium, Sweeden, Czechoslavakia, and particularly Germany

("*TÜLOMSAŞ Tarihçe,"* n.d.). In that vein, Mustafa Kemal plainly emphasized that the actual war was all about economic and financial (Inan, 1972). For this reason, the production of the industrial materials that were used in railway management from internal sources carried huge importance. To achieve this goal, a significant attempt to establish a national railway industry was launched in the beginning of 1930s.

These studies had been established to increase the production potential of the production areas, which was already existing in the railway industry and to equip them with modern production techniques.

At the same time, in different regions, investments in the railway industry were proposed. The very first example of these kinds of investments was Eskişehir Cer Atölyesi (Eskişehir Railway Repair Shop) and Sivas Cer Atölyesi (Sivas Railway Repair Shop). Besides these establishments, factories like Ankara Demiryolu Fabrikası (Ankara Railway Factory) and Adapazarı Vagon Üretim Atölyesi were launched later on.

In 1894, in order to meet the need for steam locomotive and wagon repair, a small workshop, named "Anadolu-Osmanlı Kumpanyası" was set up by Germans in relation with Anatolian- Baghdad railway line. That was the first step of the establishment of what so-called as TÜLOMSAŞ today. Small-scale locomotives, passenger and freight wagons were repaired in here. In those days, to fix locomotives' boilers, these materials were transferred to Germany. In addition to this, all spare parts were imported from other countries. In 1919, during the occupation of Anatolia Anadolu-Osmanlı Kumpanyası was conquered by British forces. On March 20th, 1920, it was taken back by Kuvay-ı Milliye, and the name of the institution was changed to Eskişehir Cer Atölyesi. ("*TÜLOMSAŞ Tarihçe,"* n.d.). During the Independence War, it was also used for producing some ammunition needed for the Turkish military. The workshop, which was taken over by the Greeks on July 20th, 1920, was permanently taken back by Turkish forces on September 2nd, 1922; this event could be seen as the introduction of modern technology in the Turkish Republic. It was the first step of shifting from an agricultural-based economy

to a technology-based economy. ("*TÜLOMSAŞ Tarihçe*," n.d.). Not only production and repair of industrial product was realized but also the training department named "Apprenticeship and Art Schools" was established in 1940 to increase and maintain the qualified manpower. In the following years, the construction of locomotives was realized, which was marked as a milestone of Turkish Industrial development. (Sain, 1993). As a result of the studies started in Eskişehir in 1958 and Sivas in 1959; Karakurt, which was the first Turkish. Turkey's first domestic car, which was constructed in Eskişehir Cer Atölyesi named "Devrim" in 1961. Cooperation of the TCDD institutions had a significant impact and crucial meaning on this event. Some engineers and technical personnel from the Sivas Cer Atölyesi were involved in this project in Eskişehir, and the cylinder blocks for the engine of the Devrim car were produced in Sivas Cer Atölyesi (Coşar, 1993). By the studies carried out at Eskişehir Cer Atölyesi in 1967, activities of this Cer Atölyesi focused on diesel-electric powered locomotive production. (Sain, 1993). Later, in 1970 Eskişehir Cer Atölyesi named as Eskisehir Institutions Locomotive and Engine Industry (ELMS), also in 1986, took its name as Turkey Locomotive and Engine Industry (TÜLOMSAŞ) (Sain, 1993). Today, this institution is still operating by carrying the facilities as locomotive production, maintenance, and repair.



Figure 3.10. A views from *Eskişehir Cer Atölyesi*

(Retrieved from: https://www.tulomsas.com.tr/mobil/sayfalar.asp?sayfa=2)



Figure 3.11. *Eskişehir Cer Atölyesi*

(Retrieved from: https://www.tulomsas.com.tr/mobil/.asp?sayfa=2)

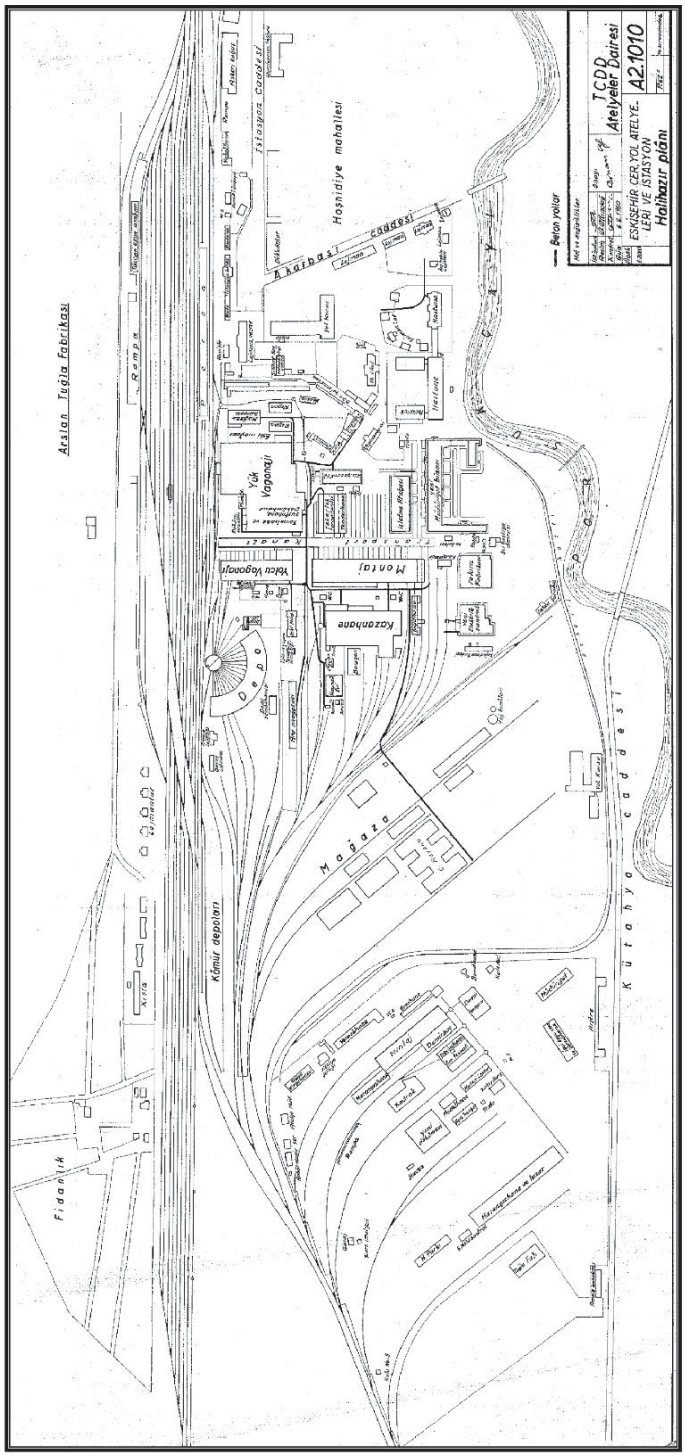


Figure 3.12. Eskişehir Railway Area in 1950s

(TCDD Archive, 2019)

In 1944, Ankara Railway Factory was established. According to data, which is taken place in the book "*50 Years in Transportation*" that published by the Ministry of Transport in 1973, the establishment of the factory coincided with the war years, that's why; supply of spare parts was the one of the main concern of the production. During this period, locomotive engine parts were produced mostly. With the purchase of motorized trains and diesel locomotives, the repair of these vehicles had become an important issue since the 1950s. Ankara Railway Factory has become one of the institutions focusing on this issue.

Another significant organization of the railway industry is the Adapazarı Wagon Repair Factory, which was established in 1951. As a result of the increasing production load of Sivas and Eskişehir factories in the 1950s, Wagon Repair Factory was established in order to meet production needs (Özkan, 1993). Since the first ten years of its establishment, 1200 passenger wagon and 600 freight wagon are repaired. In 1961, the first Turkish wagon was built in that factory (Özkan, 1993). In the 1970s, it started to produce passenger wagons with a production line incorporating the current technology. Thus, wagon rental agreements from France were terminated (Özkan, 1993). Since 1975, production has been realized for urban public transportation. In 1985, the name of the factor changed to Turkey Wagon Industries Inc. (TÜVASAŞ) (Özkan, 1993). Today, the production of passenger wagons is still ongoing.

In addition to Eskişehir, Adapazarı, and Ankara Railway factories, Sivas Railway Repair Shop (Sivas Cer Atölyesi) is another important organization of the railway industry. Today, the railway factory, which continues the production of railway machines under the name of TÜDEMSAŞ, has been examined under the heading of the Sivas Railway.

3.3 Industrial Heritage

From the second half of the 19th century onwards, the spatial impact of the Industrial Revolution began to be felt in cities with growing influence. Cities have become a point of attraction for the rural population, and the population has increased with migration waves. As a result of that, urbanization activities have accelerated, and urbanization has crossed the existing borders and created new settlements. The industrial structures that started to appear in the cities with the Industrial Revolution remained within the urban areas due to urbanization in the cities over the years. The problems of these industries, such as the failure to grow due to spatial constraints, the completion of their economic life, or the loss of function, arose in the following period. The disintegration of the urban fabric, or pollution caused by the industries threatening public health, has been evaluated as the adverse effects caused by these industries on an urban scale. Therefore, the relocation or decentralization of industries has come into question concerning the reasons mentioned above. After the end of industrial activities, the industrial areas within the city became abandoned areas, so that new debate surfaced on urban spaces.

As highlighted by Trinder (1981), the first conservation initiative for the industrial landscape was developed as an independent and personal reaction in Britain. In the 1940s, under the leadership of author L.T.C.Rolt, an initiative was created for the industrial landscape, which had a negative image in the environmental context (Trinder, 1981). As a result, steps were taken to conserve and restore the canals in the United Kingdom, and then to preserve the railways for tourist attraction. As pointed out by Trinder (1982), those acts for protection were based on the opinion that as opposed to negative images of those constructs were regarded as the values and threatened. Since the 1960s, the scope of conservation of canals and railways has expanded; It also includes the preservation of old industrial plants such as mills, quarries, quarries, iron casting workshops (Trinder, 1981).

One of the earliest studies about the industrial areas is Michael Rix's article, "Industrial Archeology", was published in The Amateur Historian in 1955. In the

article, Rix pointed out the existence of many monuments in England, the birthplace of the Industrial Revolution, but that these values are in danger because of apathy and destruction (Uzunoğlu, 2018). The CBA (The Council for British Archeology) was the first institution to carry out remarkable studies on Industrial Heritage issues.The CBA was founded to raise awareness of archeology and promote the attention and care of the historic environment for the benefit of society in 1944. They brought industrial heritage on the agenda in 1959. In the same year, the Industrial Archeology Research Committee was formed within the Council. Documentation of industrials remains has been a priority of the Research Committee. (Palmer & Orange, p. 2). The CBA's other initiative was to prepare a handbook for groups and individuals to bring together various formations interested in industrial archeology. It is the responsibility of creating coordination among the dispersed organizations working in this field. As a result of all these efforts, it was aimed to establish the conceptual framework of industrial archeology (Green, 1960). Thanks to The CBA's encouraging influence for studies in Industrial Archeology, many local organizations in the UK began to emerge in the 1960s.

In the 1970s, interest in preserving the old industrial heritage grew and began to spread to other European countries. In 1973, the *First International Congress on the Conservation of Industrial Monuments* (FICCIM) was held in Ironbridge, a symbolic value for the industrial revolution, to address these studies at an international level. About two years later, the *Second International Congress on Conservation of Industrial Monuments* (SICCIM) was held in Germany (Saner, 2012). The third meeting of the congress was organized in Sweden in 1978, and the name changed to the *Third International Congress on the Conservation of Industrial "Heritage"* (Uzunoğlu, 2008). After this change, industrial areas and monuments started to be seen as a part of local and international heritage (Saner, 2012). A critical organization dealing with industrial heritage issues, the International Committee for the Conservation of Industrial Heritage (TICCIH) was founded at the end of the third meeting. In the following period, congresses started to be organized in a different country every three years. In the organization, countries were invited by TICCIH to

establish their National Committee. Also, another characteristic of TICCIH is that it is an organization created by representatives of those national committees.

TICCIH, the first international organization focused on industrial heritage, aims to develop an understanding of the conservation of industrial monuments and artifacts and the historical, scientific, and educational value of human industrial heritage. TICCIH has expanded its field of international cooperation with many agreements; In 2000, with the cooperation protocol signed between ICOMOS and TICCIH, TICCIH was appointed as the expert committee of ICOMOS on the study and protection of industrial heritage (TICCIH, n.d.).

Today, the other leading organizations in the field of industrial heritage are ERIH (European Route of Industrial Heritage), E-FAITH (European Federation of Associations of Industrial and Technical Heritage), DOCOMOMO (Documentation and Conservation of -buildings, sites and neighbors of the- Modern Movement).

The clearest definition of "industrial heritage" is found in TICCIH's The Nizhny Tagil Charter for the Industrial Heritage (2003). The International Committee for the Conservation of Industrial Heritage (TICCIH) describes the word "Industrial Heritage" in The Nizhny Tagil Charter for the Industrial Heritage (2003) in the following words:

> "The industrial heritage consists of sites, structures, complexes, areas and landscapes as well as the related machinery, object or documents that provide evidence of past or ongoing industrial processes of production, the extraction of raw materials, their transformation into goods, and the related energy and transport infrastructures. Industrial heritage reflects the profound connection between the cultural and natural environment, as industrial processes, whether ancient or modern depend on natural sources of raw materials, energy, and transportation networks to produce and distribute products to broader markets. It includes both material assets immovable and movable and intangible dimensions such as technical know-how, the organization of work and workers, and the complex social and cultural legacy that shaped the life

> of communities and brought major organizational changes to entire societies and the World in general." (The Dublin Principles, 2011, p.2-3)

Regarding the scope of industrial heritage, A. Buchanan (as cited in Kıraç, 2001, p.57), an industrial archaeologist, says:

> "The industrial monument within this scope can be defined as the remnant of an outdated industrial or transportation system. The term 'outdated' encompasses a wide area from a prehistoric mine to a plane or computer that is no longer used."

One of the reasons behind the study of the idea of industrial heritage and the formation of organizations is that urban renewal and similar transformation plans destroy those values that characterize urban identity. Concerns about the situations mentioned above made cultural heritage an increasingly important issue. With Europe's leading in the forming of the idea of cultural heritage, the importance of industrial landscapes has come to the fore as regards cultural identity. Due to the obsolescences of these areas, questions, and threats to their future have increased. Increasing attention due to that uncertainty has triggered conservation efforts toward industrial sites.

Industrial archeology is known to arise from the need to protect the Industrial heritage in order to understand industrial development better. Industrial heritage transfers the past of industry and industrial society, the interaction of the built environment with the public/social/economic life, the memories, the specific architecture designed according to the production of goods and services, the natural and urban landscape to today (Tanyeli as cited in Turgut Gültekin, 2016, p. 910). With those characteristics, industrial heritage, which is the witness and evidence of the industrial era in the history of civilization, should be preserved by these two fundamental values and transferred to the future as an immovable cultural heritage.

Through a change in legislation in Turkey in 2004, Cultural properties were defined in No. 2863 Law on the Conservation of Cultural and Natural Property as follows:

> "Cultural property shall refer to movable and immovable property on the ground, under the ground or under the water pertaining to science, culture, religion and fine arts of before and after recorded history or that is of unique scientific and cultural value for social life before and after recorded history." (Law on the Conservation of Cultural and Natural Property (2863), n.d.)

With the same change, in the conservation site definition, the words "areas that have been stages of social life or important historical events with a concentration of cultural property" have been added. However, in article 6 of the same Law, since industrial buildings and settlements are not referred to as immovable cultural assets, it is decided that there is no cultural heritage, and thus these values are lost (Turgut Gültekin, 2016, p. 911).

3.3.1 Railway Heritage

It has spread the Industrial Revolution to many geographies in a short time and has been one of the most important forces behind industrialization. In other words, the railroad has a great contribution to the economic, social, and spatial transformations created by industrialization. With the spread of the railroad to the world, raw material logistics became easier and more efficient, machine technologies have accelerated, relocation of societies and cultures became effortless. Therefore, along with its social, economic and political effects, railways are an important turning point in world history. Railways are therefore considered as symbols of political, economic, technical and industrial heritage (Kösebay Erkan, 2005).

The first movement for the conservation of railway structures as a cultural heritage emerged in England. During the efforts to modernize railway lines in England in the 1960s, many railway structures were destroyed. This process increased concerns about the protection of railway structures and accelerated the spread of these concerns. The exhibition titled ‘Off the Rails,’ organized within the scope of ‘SAVE

Britain's Heritage' in 1977, has increased the interest in railways in the UK. After this date, the protection of structures and railways with architectural or historical significance has been brought to the agenda. As pointed out by Kösebay Erkan (2007), some railway structures were taken under protection in the 1980s like Manchester Central Station building re-programmed as an exhibition gallery. In the UK, some railway lines, the primary function of which is coal transportation and serving at short distances, were out of use when they lost the mentioned function, but they were put into use again for different functions after a short time (Ünal, 2009).

According to Köşgeroğlu (2005), railway structures should not only be regarded as a physical environment. The existing physical environment of railway districts reflects a very broad subtext. As a result, the protection of the railway heritage should include features that differ from conventional protection perspective based approaches (Köşgeroğlu, 2005). The scope of the railway heritage concept is set out in six main headings:

- Railway Archives: written texts, drawings, projects, agreements.
- All moving machines
- Structures: Stations, maintenance workshops, covers and hangars, warehouses, water tanks, bridges, and viaducts.
- Industrial facilities, natural panoramas, and landscapes, urban and rural areas that form a whole with these structures and railway lines.
- Infrastructure and signaling systems and all related equipments
- All railway-related portable objects: clocks, furniture, scales, and other objects. (Köşgeroğlu, 2006, p. 20).

As highlighted by Köşgeroğlu (2005), the definition and conservation of Railway Heritage is a considerably new subject. This issue first emerged with the protection

of industrial structures and started to be handled more comprehensively in the period after 1985. Studies on railway heritage have been observed intensively, especially in Europe. Following the studies that started under the leadership of the UK, the US and Canada have also been pioneers in heritage. In 1999, various criteria were published by ICOMOS to accept areas registered as Railway Heritage as World Heritage. It is regarded as one of the most important references on Railway Heritage (Kösebay Erkan, 2005).

Cossons (as cited in Köşgeroğlu, 2007, p. 27) highlighted the approach about the railway heritage in following words:

> "In some respect, it is this nostalgia for the railway, and especially the steam railway, that prevents us as a nation from taking sufficiently seriously the recording and preservation of its history and heritage. The material evidence the origins and subsequent development of the railway is not properly regarded by the population at large in the same context as those aspects of our past that we commonly perceive and value as heritage. Nor are the standards of scholarship of the conservation that would be taken for granted in the fields of, say, Roman archaeology or the care of historic buildings applied with similar rigour in the case of the railway."

3.3.2 Industrial Heritage Sites for Public Benefit

The industrial heritage sites are quite worthwhile because of the various significances they have. There are some critical points in the determination of re-programming to be preferred for the conservation of these fields without losing their values. In general, the re-programming of industrial areas for public use is one of the most common methods of conservation. That provides many benefits in order to generate 'socialization and individuation of the modern individual' (Severcan &

Barlas, 2007, p. 676). According to Severcan and Barlas (2007), public-oriented use of industrial areas has six significant advantages.

The first of them, the location of the industrial landscapes within the city. Previously they were situated on the periphery of cities, but they became part of the city's centers after urbanization progress. Industrial areas are situated in an attraction hub because of the city center's publicness and socialization functions. Industrial landscapes are of high significance for generation and sharing of social identity and the creation of collective memories. Moreover, these places provide an opportunity for people from all backgrounds to participate in public spaces and allow them to retain their rituals. Therefore, the conservation of these areas is essential for the revival of city centers and public life (Severcan & Barlas, 2007).

Secondly, Industrial areas have been created as quite large campuses in cities. Open-air areas where the society can use it for diverse purposes are precious for today's densely populated cities. Hence, these broad areas occupied by industrial areas in urban centers can be re-programmed as open-air spaces like technology museums and industrial parks. Severcan & Barlas (2007) stated that projects that can be designed in contexts directly related to the values of these fields have the potential to generate social awareness about industrial heritage areas.

Thirdly, Industrial landscapes have a vacant building stock which, due to its spatial characteristics, will allow many different uses. Severcan (2012) remarks that the re-programming of these areas with cultural purposes is one of the best options for many experts. Thus, the choice of cultural function for the building stock in industrial areas will have positive influences on urban cultures as well as the sustainability of cultural heritage. However, some criteria determine the appropriateness of uses while imparting cultural function to these structures, such as spatial and technical features, position in the urban context, budget, social and landowner's demands, etc. Severcan and Barlas (2007, p. 679) point out concerns about the re-use of industrial areas in the followings:

> "Whatever the new function of the abandoned industrial survival maybe, using this vacant building stock for public purposes (museums, local markets, guesthouses, theatres, etc.) would help revitalize public life in cities, and thus the individuation and socialization of the modern individual."

Fourthly, Industrial heritage sites include symbolic and monumental structures (Severcan, 2012). Those structures in industrial landscapes are directly associated with memories, which are shaping the sense of belonging, love of place, and social consciousness. As pointed out by Arendt (as cited in Severcan, 2012), for the development of public life, individuals must have strong ties with the past. The conservation of monuments is essential for society to regenerate collective memories and maintain publicness shaped by shared values (Nora, 2006; Connerton, 1989; Rossi, 1982; Assmann, A., 2006).

Fifthly, there are many structures with notable architectural values in the Industrial areas. The buildings in the industrial campuses contain unique expressions in terms of the use of architectural vocabulary. These structures provide information about the era's building techniques and structural systems. Industrial spaces allow society to rediscover its past through its visual elements. In a way, this initiates a future-oriented construction process in the context of memory (Nora, 2006). According to Severcan and Barlas (2007), industrial areas can become alternative places for public spaces that have fulfilled this function in the past but are now lost.

Lastly, one of the main advantages of using industrial areas as a tool for public use is directly related to public responsibility. In many countries, industrial spaces are commonly public property, such that they are established for the production of essential products serving the public interest. Consequently, it is easier to re-program these areas for public use. As Severcan (2012) pointed out, some of the worlds public institutions tend to use industrial areas as an indicator of the value given to society for these purposes.

CHAPTER 4

SİVAS RAILWAY DISTRICT

4.1 Historical Geography of the Sivas City

According to Akbulut (2009), the city is an organism that creates its dynamics under the influence of the region and local factors and has a unique developmental track. Each city is the product of a synthesis consisting of the historical structure, traditions, cultural accumulation, and geographical conditions of the environment. Of course, each organism has a life cycle. Cities may also evolve, transformed, and even some of its functions may out of action after reaching a certain maturity. Thus, they enter the senescent period. All of these processes present the vital history of these organisms. When these structures are analyzed, the traces of changes and interventions can be seen. Changes make itself visible in an evolutionary line within the cause and effect relationship. These changes and historical breaks in cities reveal a multi-layered past.

Today, to understand the situation of Sivas city center and its spatial conditions, it is necessary to know the story of the city. When we consider the city of Sivas as an organism, the milestones and spatial interventions in history are directly influential in the formation of today's conditions. These milestones sometimes manifested politically and sometimes socially. As a result, traces of the past shed light on the context of the present. Each historical period emerges as a new title in the life story of the organism. It is also possible to read these titles from the spatial fabric of the city and the construction. An ordinary observer walking through the streets of the city can easily recognize historical multilayers. The reasons for the multi-layered historical background are the different kinds of civilizations, such as Hittites, Romans, Seljuks, and Ottomans (Kuban, 1966).

Sivas has had a prominent city among other cities of Anatolia because of its' location, in certain periods of history as it is today.

According to many historical sources, Sivas is one of the oldest settlements in Anatolia (Çelebi, 1982; Cuinet, 1892; Gabriel, 1940). In each period of its history, each civilization in the ascendant has added different features to the city. Yasak and Kaleli (1986) state that the importance of the city can be understood from the activities of different civilizations in Sivas in various periods of history.

As indicated by Yasak and Kaleli (1986), In the Asia-Minor district, Sivas is one of the cities which have a unique position in terms of military, economy. Thus, for many civilizations in history, Sivas has been seen as a strategic point to be achieved.

In this historical background, the geographical features of the city come to the fore. In order to understand the transformation and structuring of the region in history, it is necessary to examine the geographical location of Sivas and its local geographical thresholds. These geographical conditions give rise to the region to be seen as substantial by various civilizations throughout history (Kuban, 1966).

Sivas is in the east part of the central Anatolia. The city is located at the intersection of the North-South and East-West transportation axes of Anatolia. Due to its location, the geography of Sivas can be described as a crossroads within Asia Minor. In addition to political reasons, many civilizations have tried to capture Sivas due to its strategic position (Akbulut, 2009). Hence, it had significant political and economic effects on the Anatolian geography. (Appendix A. covers the information about the establishment period of the city)

4.1.1 The Period after Turkish Invasions

Seljuk Period

The long Roman and Byzantine domination ended in 1075 with the establishment of the Council of State, and the Council of State was the first Turkish state established in the region (Özgüven & Doyduk, 2006). They said that after Danishmends, the Seljuk rule the city. The transformation of the city following the acquisition of Sivas by the Danishmends still makes its presence in the city center with the spatial effects that can still be read today. According to Ibn Bibi (1941), the city of Sivas underwent a major construction activity during the Seljuk period, and in fact, many historical buildings that were still present in the history of Sivas were built during this period. Due to the threat of the Mongol invasion that emerged during the Seljuk period, there are data that the new settlement areas of the city of Sivas have been re-surrounded by walls (Ibn Bibi, 1941). According to these data, it is inferred that the city is a fortress city. Changing military and political conditions have had a significant impact on urban space organizations (Özcan & Yenen, 2010).

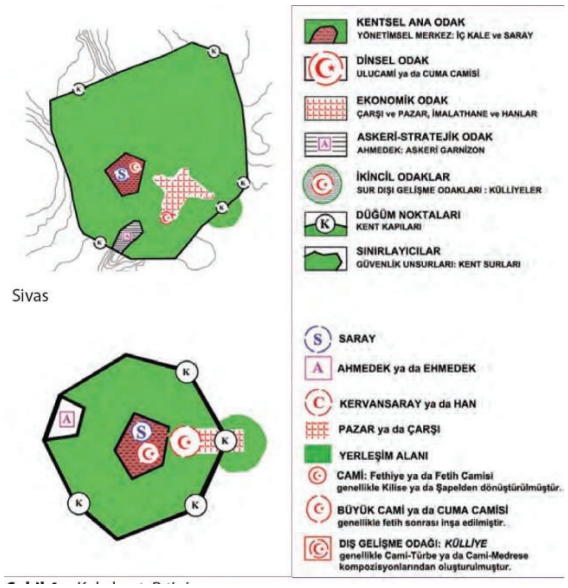


Figure 4.1. City form of Sivas in period of the Principalities of Anatolia

(Özcan & Yenen, 2010).

According to Kejanlı (2010), when the Turks came to Anatolia, they started a new structure in the cities. They have built new castles in many places. She also repaired the existing strategic fortresses in the cities they bought, added an inner fortress to the fortresses without inner fortresses, and the rulers staying with their families in the fortresses created the fortress-city image. While examining the Seljuk cities, it is seen that the cities generally have small rectangular inner castles and walls surrounding the city. In the 13th century, small inner castles were used for military purposes in important cities in Anatolia. Besides, the outer fortress formed a frame surrounding the residential areas surrounding the inner fortress (Altun, 1988).

Sivas, which exhibits an open-city appearance with the residential areas spreading around the upper fortress in the Topraktepe region during the Byzantine period, regained a closed-city appearance again during the Seljuk period (Özgüven & Doyduk, 2006).

As stated by Özgüven and Doyduk (2006), during the Seljuk period, Sivas was the focal point of the transportation system in addition to its political-administrative function, and it served as an international exchange center. The spatial visibility of these functions is described in Özcan and Yenen's (2010) study on Anatolian Seljuk cities as follows:

The outer walls define the general form of the city. When the internal spatial organization chart of the city is examined, the administrative center and the settlements with economic activities are seen separately. The administrative center is defined by an inner castle that houses the palace, the madrasas, and the mosque. This area is the lower fortress.

Moreover, it is a 500m walk to the upper fortress in the Topraktepe area. The famous traveler, Albert Gabriel, thinks that the boundaries of the lower castle extend from the building of today's Congress museum to Buruciye madrasah. In this area, there is also the castle mosque of today.

While looking at the city form and transportation axes of the Seljuk period, it is seen that the spatial lattice-shaped in line with the needs of the period has traces of this, albeit dimly. While the upper fortress still exists today, there is no sign of the Lower fortress. However, Seljuk structures such as Buruciye madrasah and Sifaiye Madrasah still exist.

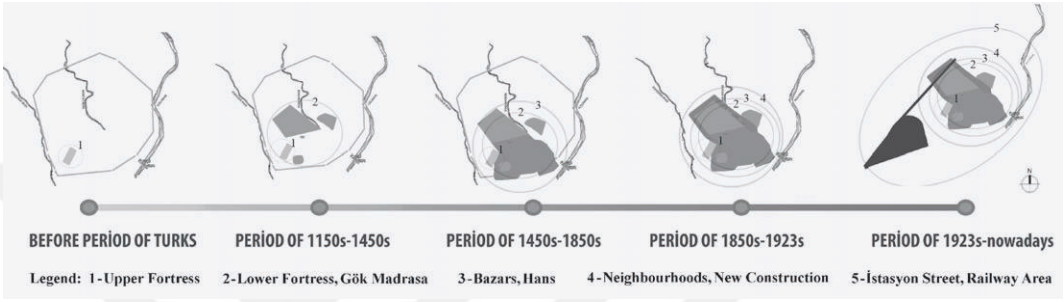


Figure 4.2. Transformation of Sivas city center in the context of spatial continuity and cultural patterns

(Tuztasi & Koc, 2017).

During the Seljuk period, Sivas, Iraq, Syria, Iran, Istanbul, Konya and Malatya, such as the connection of the most critical domestic and foreign markets has served as a center (Özbek, 2006). Thanks to its location to the ports of Trabzon and Sinop, Sivas became involved in the Crimean trade, as well as European trade through the Venetians and the Genoese. Sivas, which has an active role in the trading scene, has many merchants were living in the 13th century. The inns and bazaars where the tradesmen who are active in various fields are established constitute the city center. Gabriel thinks that there was a bazaar in the south-eastern of the lower fortress (Cezar, 1983). Today, this area corresponds to Ulucami and its surroundings, which was built in 1197. The bazaars are mostly located on two major streets. Moreover, this field continues to function commercially.

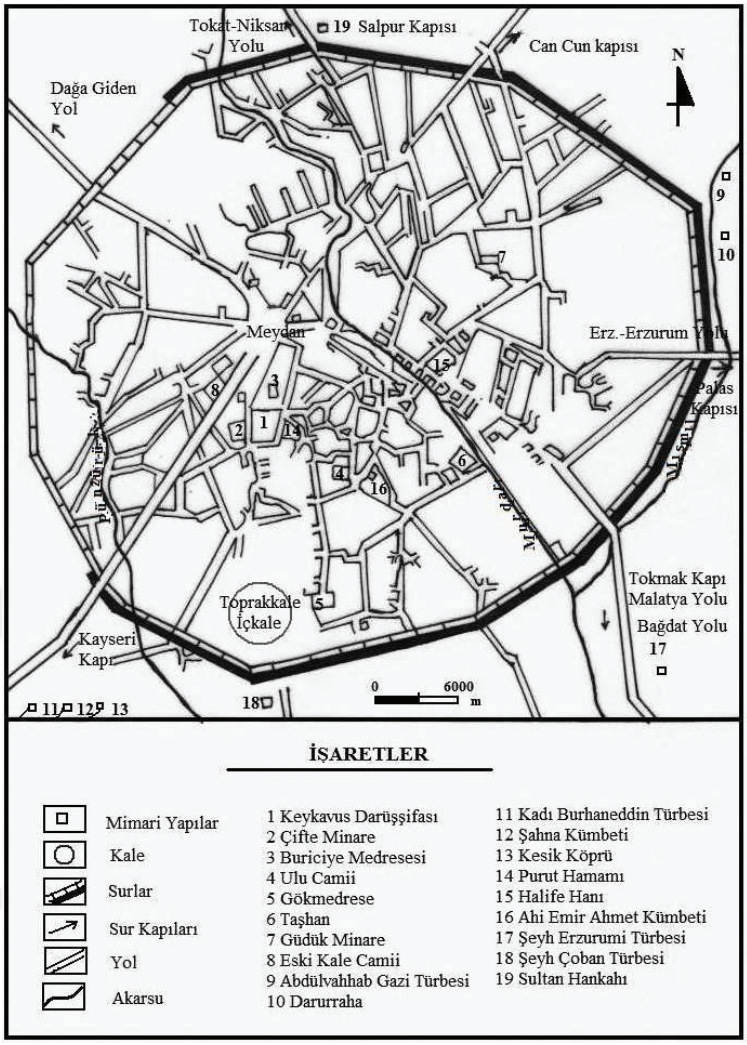


Figure 4.3. Sivas in Seljuk Period

(Demir, 1996)

Demir (2005) states that, during the Seljuk period, various problems arose with the development of the city. Similar to most Turkish-Islamic cities, the texture formed by organic forms in the city center has created an irregularity. The streets in the city are narrow and curved and mostly dead-end. Besides, dusty weather caused by northern winds caused by spring rains and mud and rush floods were other problems (Yücel, 2008).

Ottoman Period

With the collapse of the Ilkhanid Empire in Iran in 1335, Sivas was declared the capital by the Eretnalians in 1338 and Kadi Burhanettin in 1381. After the establishment of the Ottoman Empire in the west in the early 1300s, the political and commercial focus of Anatolia shifted towards western Anatolia. The city of Sivas declined in this period. In 1398 Sivas joined the Ottoman Empire. In the Timur campaign in 1399, madrasahs and libraries were burned in the city (Cevad, 2002). Reconstruction activities started in the city during the Ottoman period (Demirel, 2000). In the 14th and 15th centuries, the city center is around the Lower Castle region and Ulucami as in the Seljuk period.

Moltke, who visited Sivas before the declaration of the Tanzimat, mentions that the city is located in a treeless plain and that the houses are covered with soil and the roads are muddy (Akpolat, 2007). After the Tanzimat, the Ottoman Empire changed its conception of government and changed the structure of the cities.

Cânâ Bilsel (2015) noted that towards the late ottoman period, through the Tanzimat reforms, there have been regulations in the administrative structure of the state, law infrastructure, education, and society. Besides, within the scope of these reforms, local administrations were restructured, and the municipality units were established. It is aimed to transform the physical face and spatial configuration of cities through the restructured local government system (Bilsel, 2015).

The city of Sivas became a province in 1864, and the flags of Amasya, Tokat, and Şebinkarahisar were attached to it. The slowdown of the commercial life that occurred after the establishment of the Ottoman Empire decreased. Trade has been revived to a small extent. The distribution of foreign goods from Iran and Syria to Anatolia was provided through Sivas (Mahiroğulları, 2003). Thanks to increasing commercial activities, the city received immigration, and new settlements were opened (Çubukçu, 1968). The city is spread towards the slopes of Mount Meraküm

(Cevad, 2002). In this period, Akpolat (2007) explains the spatial transformation in the city as follows:

"The laws, regulations, and methods are taken from the West started to be applied to the Ottoman cities, through the institutions. The Ebniye Nizamnamesi, which includes the advanced techniques of the period, such as the expansion of the streets and the new parceling principles by withdrawing the newly constructed structures of the western urban planning, came into force in 1848. In 1856, the regulation regulating the expropriation works, which is one of the essential tools of urban planning, was put into practice, and the appearance of the cities began to change. In particular, non-Muslims who gained new rights after the Tanzimat have built many schools and churches in the city."

In the new city plan, the area between two streams, coming from the Meraküm plateau and the mountain, the Mısmıl River in the east and the Tavra Creek in the west constituted the main establishment area of the city and the center of the city was shifted to the east (Cevad, 2002).

According to Cuinet, in 1880 most of the houses in the Sivas city center are adobe and have a climate-resistant appearance. During this period, land construction was prohibited by the province, and various inspections were introduced. Thus, significant city planning began in the center (Cuinet, 1892). Today, when looked at the city center of Sivas, it can be seen that there are too many buildings from the Ottoman period, which can be related to the fact that most of the dwellings are adobe.

In the implementation of Tanzimat reform regarding cities, contemporary examples in European cities are taken as reference (Bilsel, 2015). Administrators trained in Europe have had a significant impact on the successful implementation of these approaches. Concerning this situation, the most influential of the transformations affecting the urban space and environment in the Ottoman period were realized in the governors of Sivas İsmail Hakkı Paşa (1880-1882) and Halil Rıfat Paşa (1882-1885). They brought important alterations in European standards to the planning process of Sivas (Kuzucu, 2007).

As stated by Kuzucu (2007), during the period of İsmail Hakkı Paşa, priority was given to road repair, and pavement works in the city of Sivas, which had curved and inclined roads, lacking infrastructure services. In order to prevent loss of life and property caused by floods, it was requested to construct a set wall on the edges of streams passing through the city, but these targets could not be realized due to lack of appropriation (Kuzucu, 2007). Kuzucu (2007) also points out that then the risky buildings were demolished and the land used as a crib in the city center was cleaned and turned into a recreation area.

In the period of the next governor Halil Rıfat Pasha, importance was given to city planning. New buildings were made by the local architectural texture using materials specific to the region (Yıldırım, 1993). The choice of local materials in the structures built during Halil Rıfat Pasha's period and the façade styles that refer to the Seljuk period come to the fore. Government buildings, barracks, schools and new buildings such as Taşhan, which were built in this period, used a simple architectural language that could be a reference to Late Ottoman architecture (Kuzucu, 2007). Today, these structures are still in use. These structures have a significant share in the definition of urban identity today (Kuban, 1966).

The Pasha Factory, which is considered as the most critical urban recreation area of Sivas today, was added to the city during Halil Rıfat Pasha. This area, which is 7km away from the city center, has been meeting the urban green need of the city for more than a hundred years (Kuzucu, 2007). Besides, during this period, the Management attached importance to road works. The connection lines with the city's immediate surroundings have been completed. These activities allowed the formation of an organized transportation network that met the needs quite well for the period in which it was performed (Mahiroğulları, 2001).

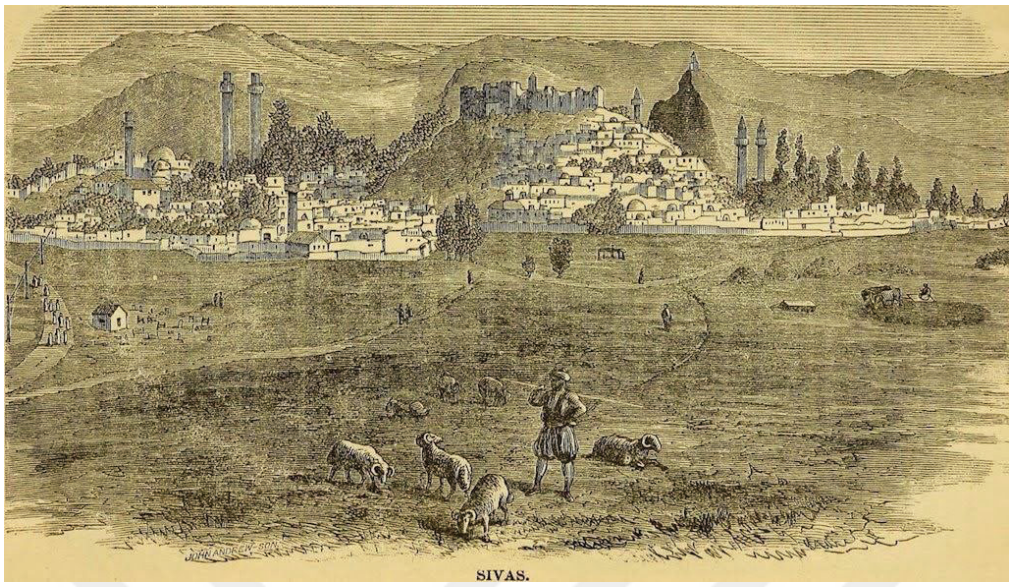


Figure 4.4. Sivas in 1845, John Andrewsen's drawing

(Retrieved from http://www.sivas.li/2015/05/sivas-cizimi-yl-1845.html)

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According to the researches (see, eg., Kuban, 1966; Denizli, 1990), The city of Sivas has a unique structure with its uncommon features within the geography where it was located since its establishment. The Roman and Byzantine periods, the Anatolian Turkish principalities and Ottoman periods, such as each period have

various functions (Özbek, 2006). The city has developed diverse dynamics for centuries in terms of political, military, and economic values. As a reflection of these dynamics, the spatial fiction of the city has been shaped (Tuztaşı & Koç, 2017).

As a result, every spatial transformation and its characteristics have transformed the urban continuity and social structure. Today, in order to examine the spatial and cultural dynamics of this city, the experiences and historical breaks until the Republican period should be analyzed.

4.1.2 Republican Period in Sivas

Ökmen (2006) points out that between 1900 and 1923, the economy of Sivas consists of small-scale industrial and agricultural activities and does not show a very different appearance from the rest of Anatolia. He continues, there was no change in the general outlook of the city due to the general recession in the country's economy during the early years of the republic (Ökmen, 2006).

As said by Akbulut (2009), the growth of the Sivas town center in the last decade has been influenced in distinct phases which formed by economic, social, spatial, and political context. This development process consists of four separate phases: the period of 1923-1940, years of intense urbanization movements, the 1941-1970 period where various industrial organizations were established and workers migrations, the 1970-1999 period where a second city planning was applied and 2000 period (Akbulut, 2009). The periods that are mentioned before by Akbulut (2009), mostly overlap with the Tarık Şengül's (2001) periodization proposal that is offered to examine the development trend of urbanization in Turkey. This periodization comprises three-phase: 1923-1950, the establishment of the nation-state, 1950-1980, defined by the migration of labor power to the city, and after 1980, when capital established its hegemony in cities (Şengül, 2001). There are some variations in terms of years between the periods provided before by Akbulut (2009) linked to the

urbanization phase of the city of Sivas and the proposal for the periodization of Tarık Şengül (2001). In addition to investments such as the railway line opened in 1930, the Divriği Iron and Steel mines opened in 1938, the Railway factory opened in 1939, and the Cement Factory founded in 1943, which are deemed as significant events in Sivas history, master plans introduced in the following years also cause to differentiation. In determining the boundaries of these periods, the economic policies shaped as a result of the domestic and foreign policies of the country, the need for change arising from the city's spatial dynamics, and the necessary planning processes were effective.

Looking at the first era of urbanization movements (1923-1940), although Sivas was one of the business, political and economically advanced cities of the past centuries, it's appearance was like a small city. According to the report published by TÜİK in 2000, the population of the central district was 57000 in 1927. Until those years, the city center did not extend beyond the specified urban boundaries formed by the Seljuks (Önder, 1970). According to the report of the Sivas Province Analytical Studies (1966) published by the Bank of Provinces, the city center consists of residential buildings with gardens, late Ottoman structures, railway buildings, housing units and the city cemetery in the years before the planning process. When the railroad reached Sivas in 1930, an important process began in terms of urbanism. The area in the field between the station building and city square has been considered, and many areas were expropriated to build a street between two points, and then *İstasyon Caddesi* which is the most prominent street of the city today was opened for use in 1931 as İnönü Boulevard (Ayvazoğlu, 2012).



Figure 4.5. Sivas City Center in 1930s

(Unknown Source)

The State Archives of the Republic of Turkey contains information that a specialist named Kazalanga applied to the Municipality of Sivas in 1934 to carry out a mapping study for the city of Sivas. There is a possibility that this study may be related to the master development plan of Sivas city center in the same years. Three master plans which in the ratio of 1/2000, 1/1000, and 1/500, were prepared for Sivas in 1934 (Üner Püşman, 2019). In the 1930s, with the implementation of the master plan developed for the first time, the city first spread to the northwest. Then, with the new constructions towards the West, it exceeded the city limits in the Seljuk period (Demir, 2005). The city form, which was reshaped in this period, is a significant reference to today's spatial configuration. The period of 1923-1940 was a period in which urbanization movements gained momentum and shaped by critical industrial breakthroughs and related practices.

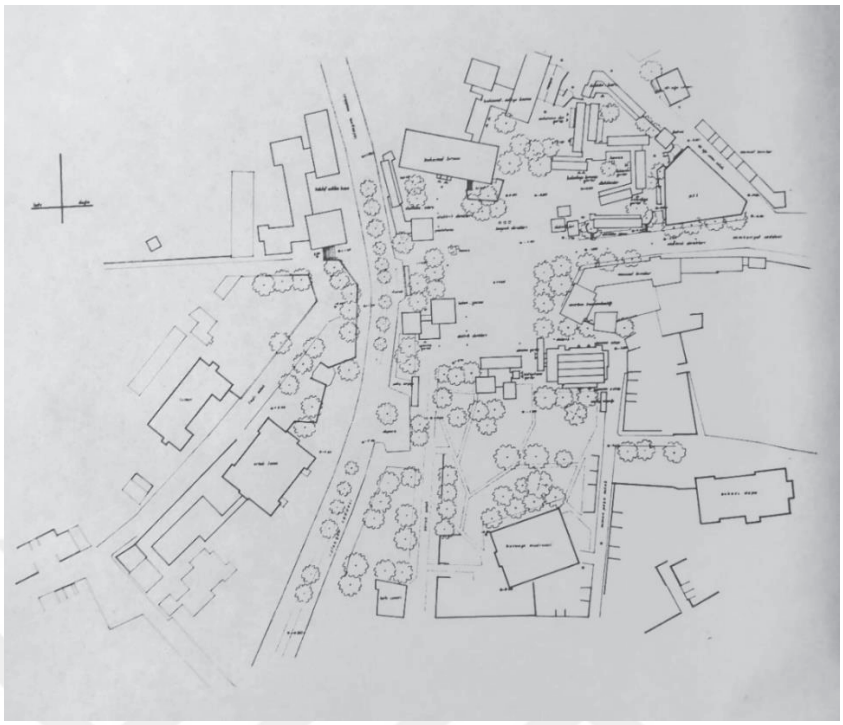


Figure 4.6. Site plan of the city square at the beginning of the 1930s

(*Sivas İli Analitik Etüdleri,* 1966).

In the period between 1941 and 1970, the Cement Factory established in 1943, various factories built between 1950 and 1962, and prominent developments such as the airport opened in 1957 had impacts in the urbanization process (Sivas İli Anal. Etüdleri, 1966). However, the urbanization movements slowed down due to the economic, social, and cultural stagnation caused by World War II between 1940-1945. According to the data of the Bank of Provinces (1966), in particular, owing to the Railway Factory opened in 1939 and the Cement Factory opened in 1943, people from districts and surrounding cities came to Sivas; thus Sivas became a city receiving immigration. The population of the city center, which was 57000 in 1927, reached 78000 in 1940, 92000 in 1950, and 149000 in 1960 and 211000 in 1970 as a result of the developments in industrialization and transportation (TÜİK, 2000). The growing population has led to the creation of new residential areas, and the city has grown approximately 600 hectares.

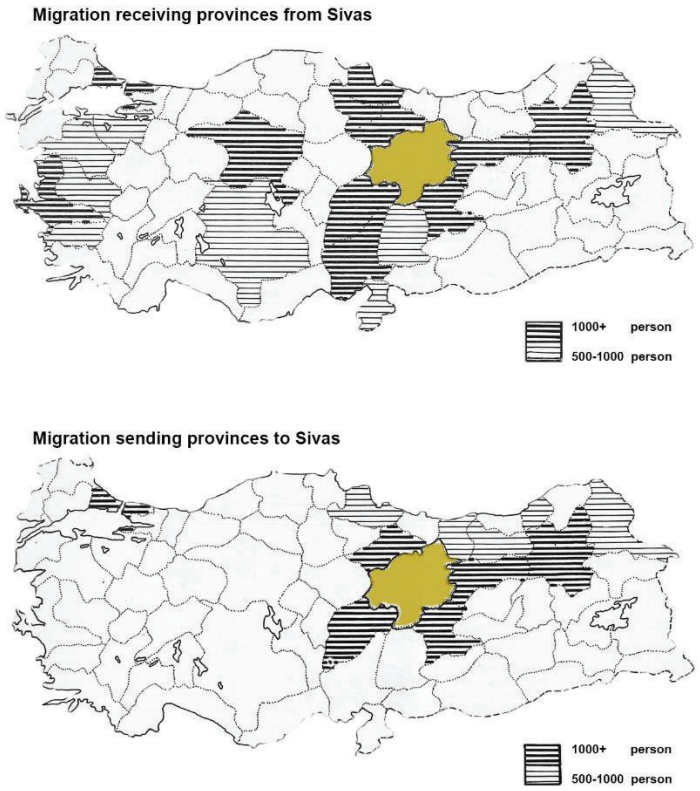


Figure 4.7 Map shows the migration relationships of the city with nearby cities

(Source: *Sivas İli Analitik Etüdleri*, 1967)

Kurt Erdmann's comments on the urban space during their trip in 1951 contain very important data on the urban environment in the 1950s (Blessing, 2012). They describe the city while referring to archaeologist and architectural historian Albert Gabriel (1934) in the following words:

> "…a few days stay in Sivas provided an occasion to observe the large number of recent buildings and ongoing construction in the city. …The city is modern, much of it has been recently built, much still isn't complete."
>
> "…Sivas must have grown a lot since Gabriel's visit. Large industrial suburbs. In the centre high-rises, in between the typical bustle of tattered people, many horse-drawn carts, hardly any cars. The historic downtown

really only consists of the ruins of Seljuk monuments. A first tour from 5 to 6:30 pm. Traffic was hardly motorised, yet this was beginning to change, and soon large boulevards to accommodate cars, buses and trucks would criss-cross the city centres." (Blessing, 2012, p. 415-425)

Thirty years later, Erdmann agrees with Gabriel's sadness about the destruction of the ruins of fortifications (Blessing, 2012). He stated that the existing historical monuments in the city were subject to degradation and that there was no restoration approach. In the changing urban space, he mentioned that new construction is more valuable than historic preservation for locals (Blessing, 2012).



Figure 4.8 Aerial photo of Sivas dated 1959

(Source: Unknown)

In the following years, the city has continued to develop due to the development of the railway between Ankara and Sivas and the road that has become increasingly substantial. When the configuration of the urban macro form of the city is analyzed from the upper scale, the industrial organizations having effects on population concentration are located on the transportation axes coming from Samsun, Yozgat and Kayseri directions is perceived. Accordingly, the settlements of the city direct towards the west, north, and northwest (Ökmen, 2006). As observed from the urban fabric in the city plan in force in 1966, the built-up areas are sprawled in line with the transportation axes of the city. These radially dispersed street axes converge on the city square (Figure 4.9).

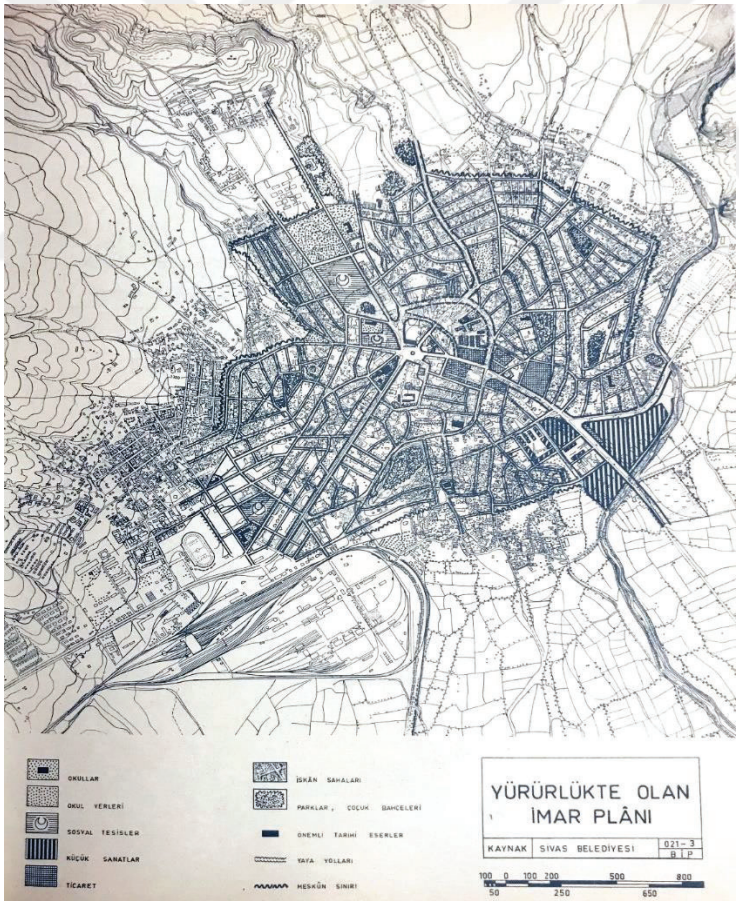


Figure 4.9. Master Plan of the city square at the late 1960s

(*Sivas İli Analitik Etüdleri*, 1967).

In the 1960s, settlements have moved out of the zoning plan due to new constructions in Sivas. It was aimed to achieve the first master development plan in Sivas where planned urbanization policies could not be implemented due to technical deficiencies through the Sivas Master Plan Competition opened by the İller Bankası in 1967 (*Sivas Belediyesi Stratejik Plan 2007-2011*, 2006). Architects Fahri Yetman and Behçet Baykut prepared the 1969 plan obtained through the competition (Figure 4.10).

According to report of Sivas Municipality (2006), Sivas's first master plan was built by this competition. In accordance with the 1/25000 scale environmental plan, 1/5000 scale master plan and then 1/1000 scale implementation plans were created and approved in 1972. Because of the immigration of the city, with the application of the municipality, the master plan revision and additions were made by the Ministry of Development and Housing in 1985 (*Sivas Belediyesi Stratejik Plan 2007-2011*, 2006).

The Master Plan of 1969 was prepared with the assumption that the population of the city will be 230000 in 1985. The essential foresight of the plan is that with the necessary infrastructure investments, urbanization will increase, new industrial investments will be realized, and Sivas will become an industrial and commercial center on a regional scale. In the plan, industrial areas in the south and west of the city were preserved, expanded, and new industrial developments were proposed in the southwest (Baykut & Yetman 1969). The proposed housing areas were also directed towards the west, and the ring road passing through the south was one of the decisive decisions for the plan (Baykut & Yetman 1969).

It is assumed that approximately 48% of the population is active for this plan period, while the working part of the agriculture sector decreases and the working part of the industry sector will increase (Baykut & Yetman 1969). The service sector is expected to increase its importance with the development of the industrial sector (Baykut & Yetman 1969).

The spatial decisions expected from this plan are as follows:

- Opening of new areas for administrative functions that were not able to meet the needs in that period,
- Ensuring the continuity of the education and health areas sufficient for that day to meet the needs of the city and the region,
- Allocating space for inadequate social and cultural areas, increasing sports fields,
- Increasing the regulation of parks and green areas (Baykut & Yetman, 1969).

This plan has been prepared following the standards of the population, density, transportation, social and technical areas (Aslan, 2010). However, due to the fact that it was prepared without cadastral maps, difficulties in implementation were encountered. A new plan was needed as the plan failed to provide the projected population and the development of the city (Aslan, 2010).



Figure 4.10. Master Plan of 1969

(Baykut and Yetman, 1969)

In the third period between 1970-1999, the population increased, and new settlements have appeared in Sivas. Also, institutions such as Cumhuriyet University opened in 1973, Concrete Sleeper Factory opened in 1976, and the 4th Iron and Steel Industry was established. Thus, the development of the city took place in the west and southwest direction and new settlement areas such as Yenişehir Quarter were established.

In the city where there was not enough industrial investment other than those of the early Republican period, the number of people participating in agricultural activities was much higher than those in industrial production (Ökmen, 2006). For this reason, in 1985, the urban population was far behind the rural population. Due to the inadequate socio-economic structure in the city, the migration has accelerated. Due to the migration of qualified labor force, the city was affected negatively (Akbulut, 2009).

Changes in urban space have occurred due to the effects of migrants from rural areas to urban areas (Akbulut, 2009). Because of the low-income level of the community and their cultural separation from the existing city residents, the people from rural settled to unimproved lands (Akbulut, 2009). Therefore, unplanned residential areas started to form on the periphery of the city, and slum type houses were built (Akbulut, 2009).

After 2000, while the city's population continued to migrate, Sivas also received migration from the rural settings. In 2000, for the first time in history, the city's central population exceeded the rural population. One of the reasons for these migrations is inadequate employment opportunities in the city. The other reason is people who migrate to the city due to insufficient agricultural activities in the countryside (Oran Development Agency, 2016). Therefore, the change in the social structure of the city has accelerated. The number of slum settlements that emerged after 1985 increased.

After 2000, no radical changes took place in the city center. However, the changes in other cities arising from construction fervor in Turkey were observed in Sivas as well. Building renewal projects were implemented in some of the developing areas of the city, though there are no urban transformation projects on the city scale. During this period, the city continued to spread in the south-west, south, and north-east directions. Until 2000, Kızılırmak River was the threshold for urban expansion in the south. However, after 2000, the city crossed beyond Kızılırmak River, and the settlements began to spread into the south of the river.

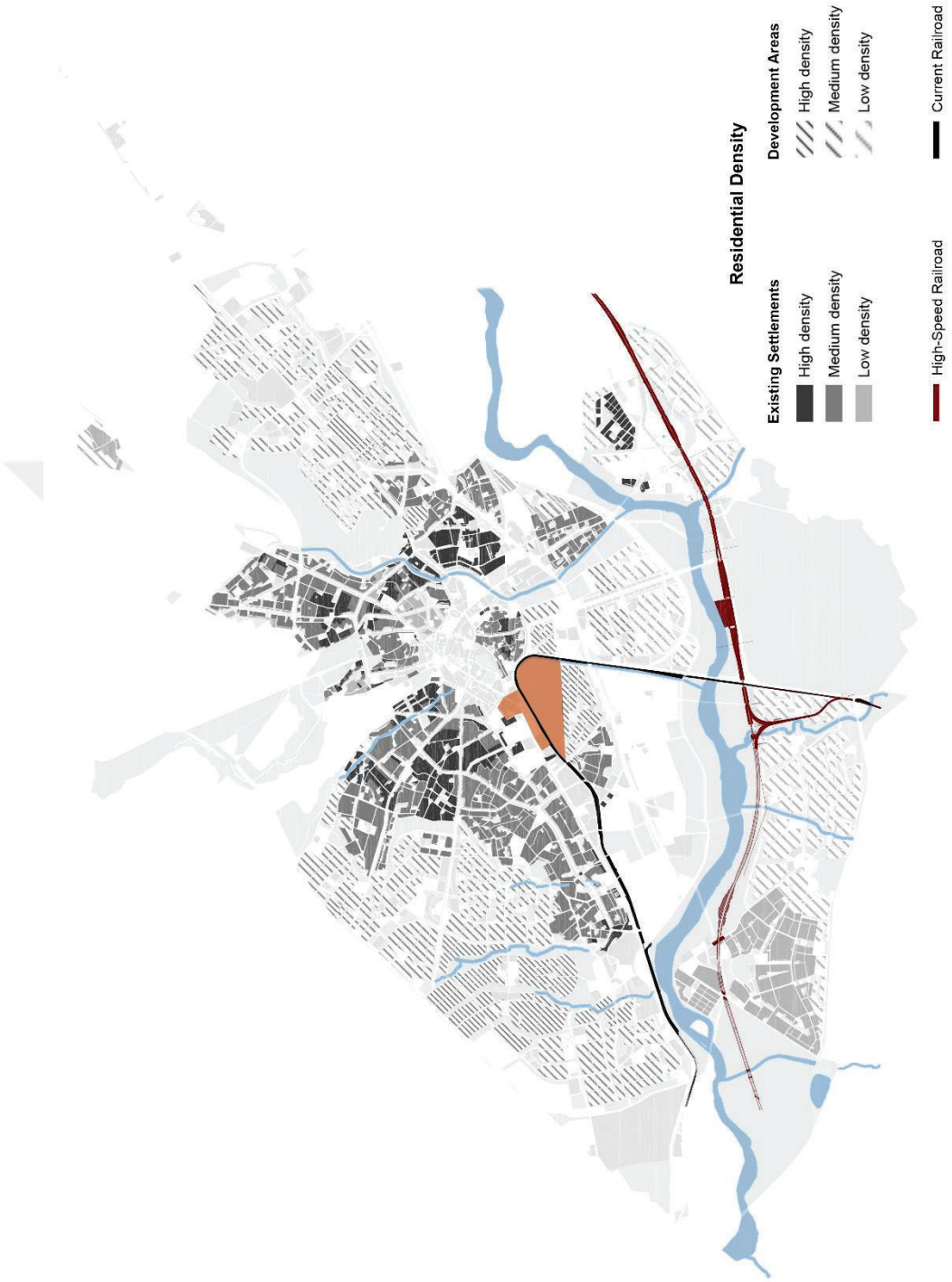


Figure 4.11. Map show the residential density of the city center.

(Related data is obtained from current master plan of city. Source: Sivas Municipality Archive, 2019)

The first construction activity in the region started with TOKİ residences built between İşhanı Village and Kızılırmak River. Later, in the region between Kızılırmak and the city center, many houses were built on Baghdad Street more recently. *Bağdat Caddesi* corresponds to the Baghdad road in the city plan that Gabriel's (1934) prepared for Sivas. That area has developed as one of the new sub-center of Sivas in the last few years (Figure, 4.12). There are almost no gated communities in Sivas. It is noteworthy that new settlements are designed as a gated community. Those areas differ from the existing typology in the city. The user profile of these dwellings is generally from high-income groups. These houses are sold at prices much higher than the houses in the city center. After the proliferation of living areas in this region, the service sector related commercial activities in the city center shifted to this region.

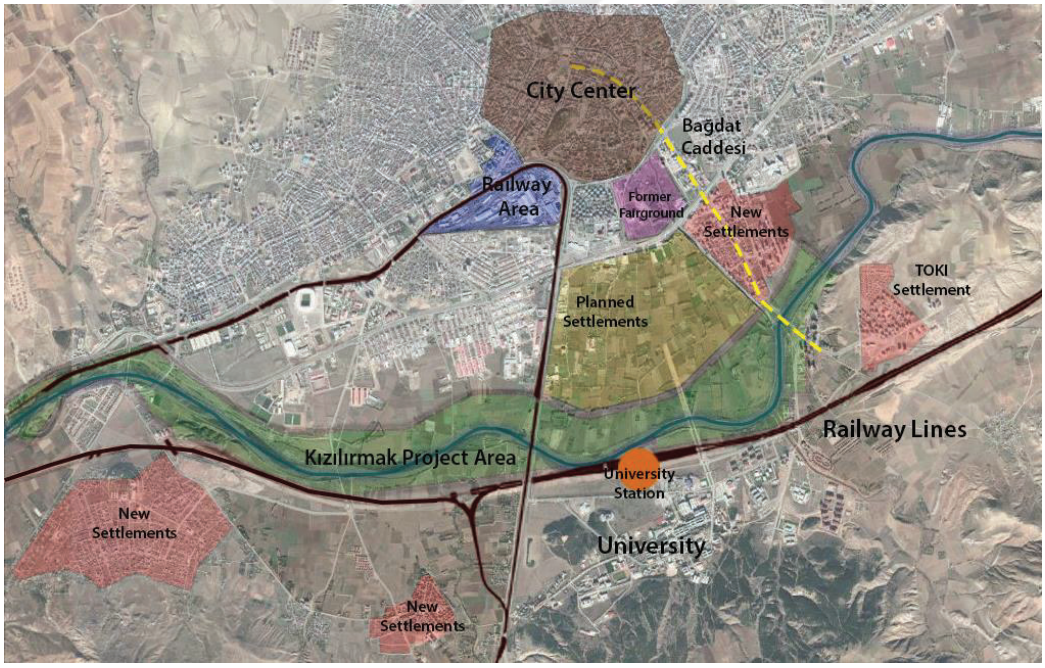


Figure 4.12. Map shows the new settlements emerged in last 15 years.

The area to the west of *Bağdat Caddesi* is an unbuilt area known as the Old Fairground. This area was defined for the first time as the fairground in the Sivas Development Plan, which was achieved with the competition held by the Bank of

Provinces in 1967 (Üner Püşman, 2019). In the master plan, there are conceptual designs such as fairground, outdoor amphitheater, amusement park, an artificial pond, and recreational areas, for that space. However, no steps have been taken for construction in previous years and have remained a cadastral area for years.

As pointed out by Üner Püşman (2019), in the Revision Plan of 2014, some statements about this area are as follows:

- The municipality will be moved here, and a new municipality building will be constructed.
- A road will be created for the transition from the city center to the university. Also, a bridge onto the Kızılırmak River will be built along that boulevard.
- The function of the road is determined as trade.

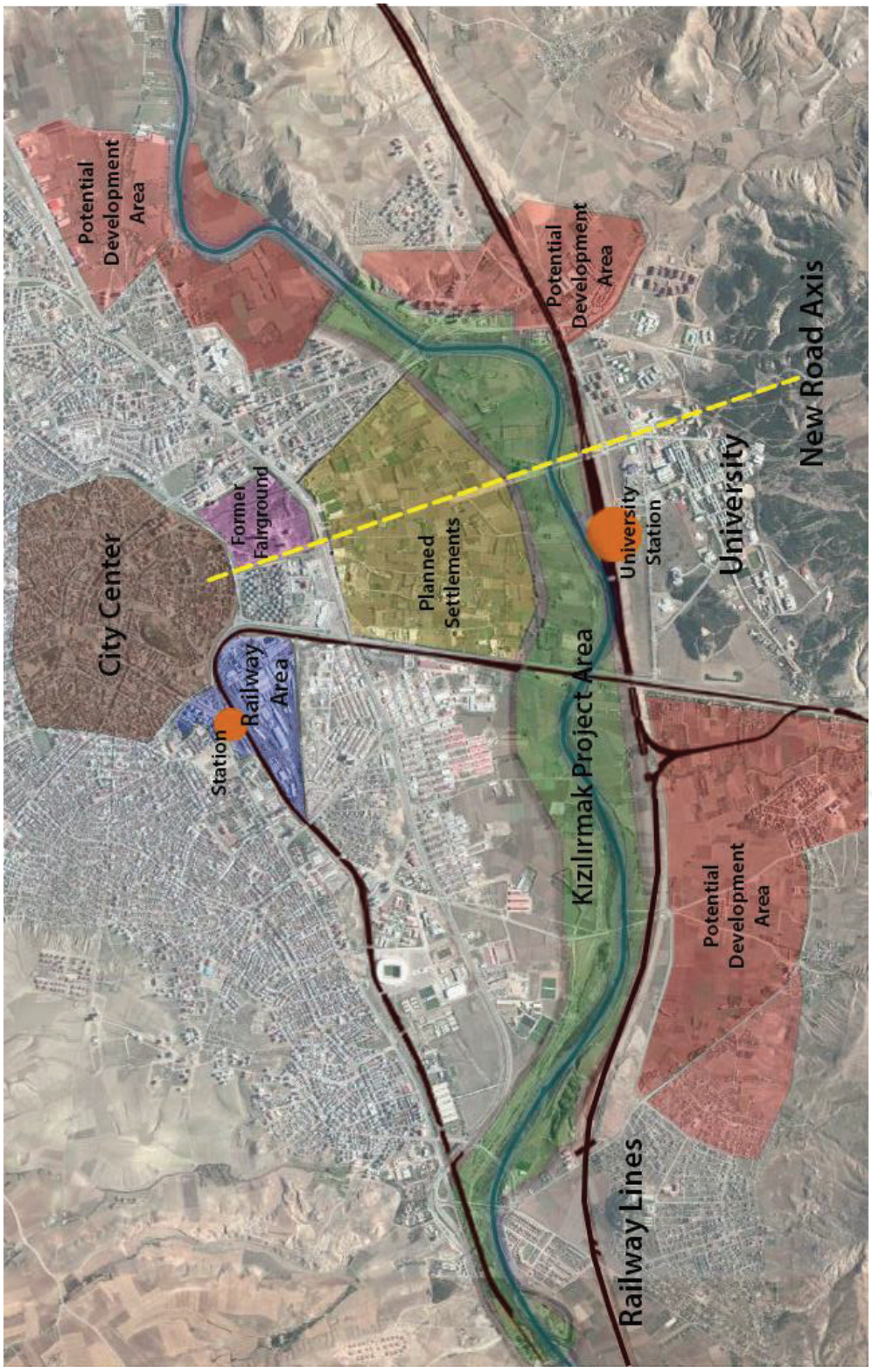


Figure 4.13. The new development areas of the city

One of the most critical issues on the urban agenda in Sivas is the high-speed railway project. The works for the planned high-speed railway line between Ankara and Sivas started in 2009. This line is expected to be operational in 2020.

After the arrival of the railway in Sivas in 1930, settlements progressed in a short time around the Railway district, and the urban pattern changed considerably (Sivas Province Analytical Studies, 1967). Similar to the past, it can be predicted that the high-speed railway will trigger a spatial transformation in the city in the future. Two different station locations were determined in Sivas for high-speed railway. The first will be constructed at the existing train station area, and the other will be in the university district. The direction of the road is planned in the North-South direction to cross the Old Fairground (TCDD Archive, 2019). Therefore, it is foreseen that the construction projects in this region, especially in the old fairground, will accelerate. (Sivas Municipality Archive, 2019).

Another issue that will affect urbanization in Sivas is Kızılırmak Urban Design Project. In 2016, Sivas Municipality organized the Kızılırmak Urban Design Competition and the Bridge Design Competition. The Municipality's objective through the competition is to obtain a design project covering the Kızılırmak River and its surroundings, which is designated as a recreational area in the development plan.

Considering events such as the high-speed Railway project and the urban design project developed for Kızılırmak River, it is clear that the urban pattern in Sivas will undergo a transformation process soon.

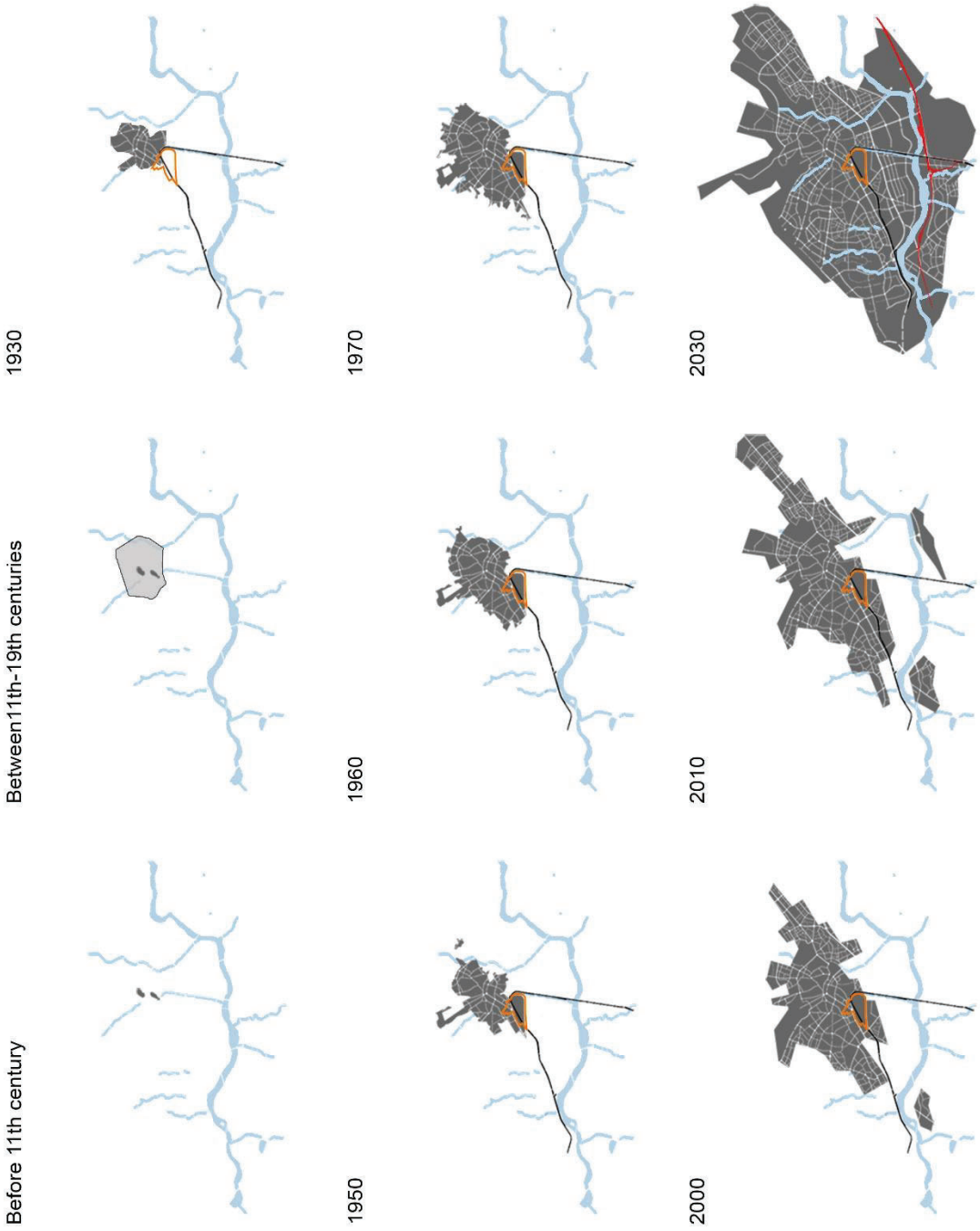


Figure 4.14. Development of Sivas city center over the years

(related data retrieved from master plan of Sivas)

4.2 Sivas Railway

The railway arrived in Sivas on 30 August 1930 with the completion of the Ankara-Sivas line.The first line to be completed in the railway networks was the Ankara-Sivas railway line. Once upon a time, Sivas was one of the most important commercial centers on the Silk Road. Thus, thanks to the railroad, Sivas was again connected to other geographies.

Apart from the structures built to serve the transportation function of the railway, another significant development is the establishment of the railway factory (*Sivas Cer Atölyesi*) within the Railway. The Sivas Railway Repair Shop (*Sivas Cer Atölyesi*), whose construction was initiated in 1934 in the area behind Sivas Train Station, was opened in 1939. For centuries, the economy of the city has been shaped by trade, production by traditional techniques, and agricultural activities.

Thus, for the first time, an advanced form of production emerged in the urban space. The railway factory, one of the essential industrial moves of the Republican era, enabled both the social and spatial effects of industrialization to emerge.

Approximately 300 thousand square meters of the Sivas Railway district is occupied by the railway station that serves the railway transportation facilities, and in 418 thousand square meters of the railway area, Sivas Railway Repair Shop today called TÜDEMSAŞ is located. The area where the railway-related housing, administrative buildings, primary school, hospital, and so forth is approximately 140 thousand square meters.

Sivas Railway District is grouped into three campuses within a spatial organization regarding their functionality. Indeed, there are no clear borders between these campuses. This is due to the fact that all functions within the Railway were arranged in relation to each other. In addition, the spaces in these areas are also used by the citizens who are not directly associated with the railway. Today, the entire area where the railway-related buildings are located in Sivas city center is approximately 850,000 square meters.

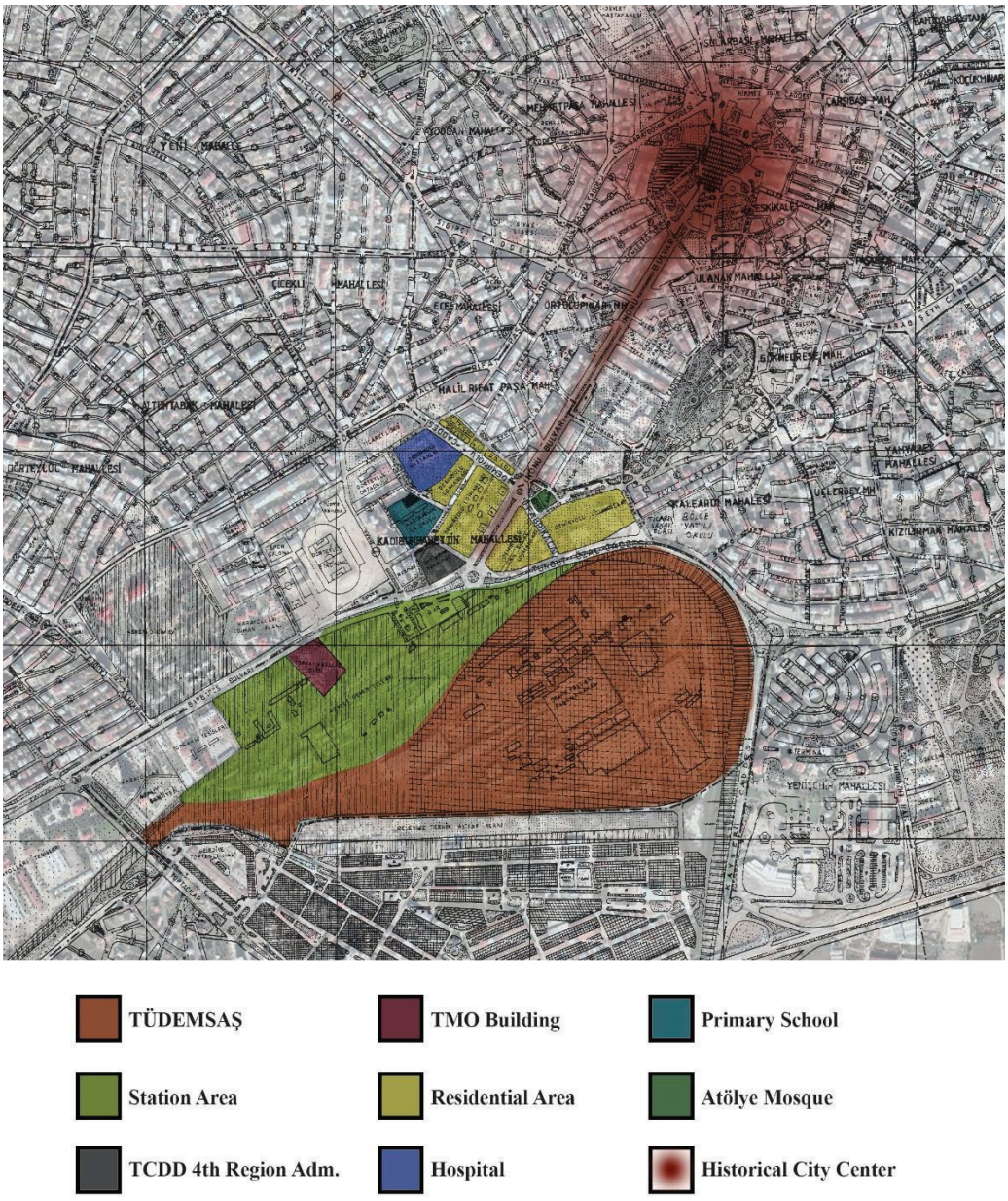


Figure 4.15. General layout of the Sivas Railway District

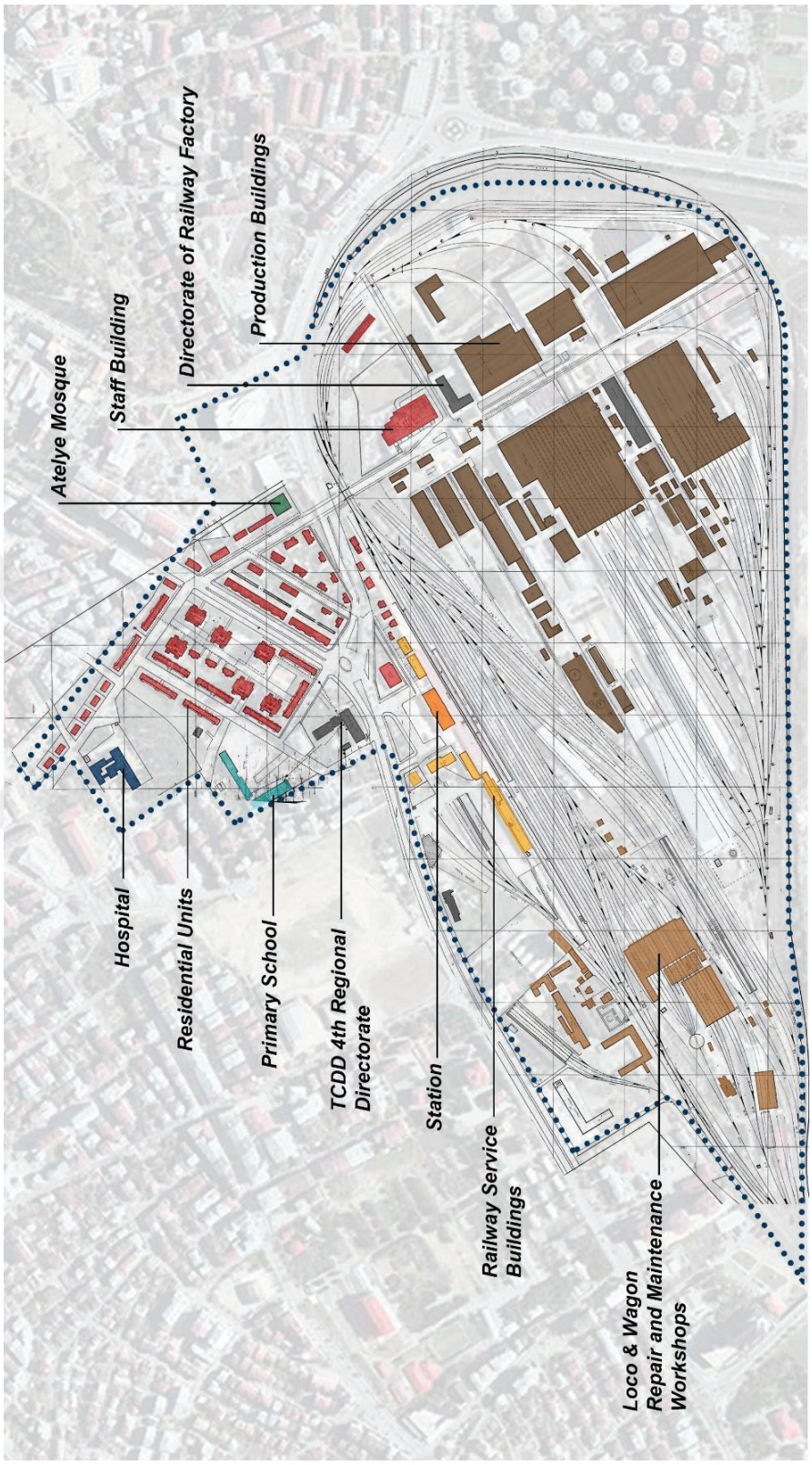


Figure 4.16. Building and structures of the Sivas Railway

4.2.1 Station Area

The first building in the Station Area is the railway station building, whose construction was completed in 1934. Later, in order to provide service to the railway network, loco maintenance shop and directorate building, wagon maintenance and repair shop directorate building, logistics directorate building, material directorate building, aluminum building, silo, railroad water-station building, department chief building, and immovable goods directorate building, material directorate building, material department buildings were added into the area (TCDD Archive, 2019). Thus, the railway transportation infrastructure in Sivas has started to take shape.

The station building, which is the most prominent representative of early Republican Architecture in Sivas city center, can be considered as the most symbolic structure in the Railway district (Bayram & Uluşans, 2008). This edifice, located at the central and visible point of the railway area, was concerned that it would represent the newly established image of the Republic.

Moreover, it was built in a modern style like the other state buildings erected during the early republic period. For this purpose, some of these projects were achieved by foreign architects due to the lack of qualified technical personnel in this period (Araz, 1995). Sivas Station is almost the same as Malatya, Diyarbakır, and Manisa stations. These train stations were built as a typical project with little changes in plans (Araz, 1995).

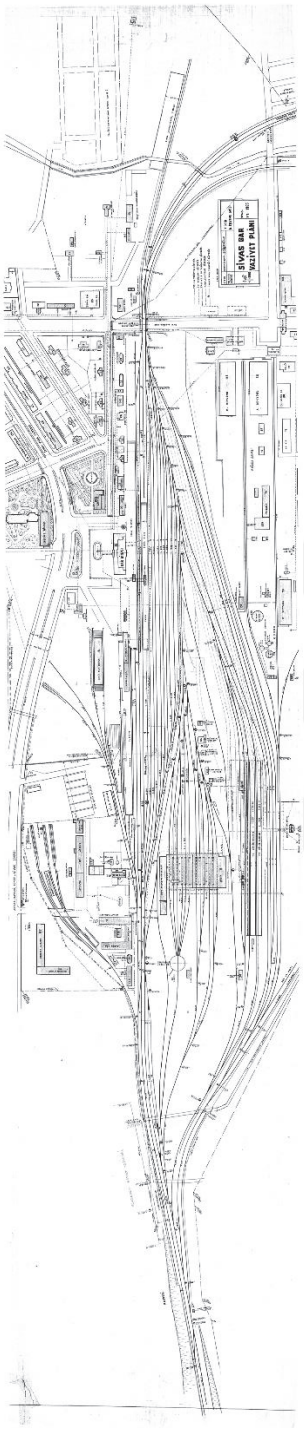


Figure 4.17. Site Plan of Sivas Railway Station Area in 1966

(Source: TCDD Archive)

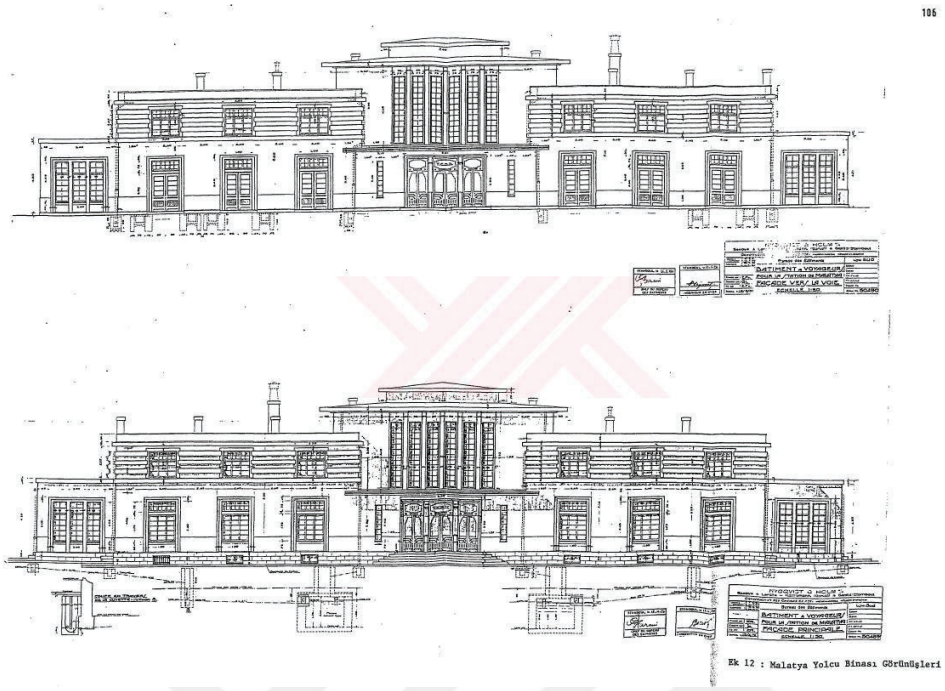


Figure 4.18. Elevation drawing of Malatya Train Station

(Source: TCDD Archive, 2019)

Furthermore, when we examine the original architectural projects of Sivas station building, it is seen that various changes have been made in the form and plan scheme of the structure compared to the day it was first built. Over time, several additional volumes were added to the building, which can be noticed from the façade of the building. Compared to the local emphasis on Late Ottoman Period structures in Sivas, it is perceived that the effects of Ottoman architecture decreased on the Sivas station building façade. With this feature, it is considered as one of the architectural practices in the transition period to national architecture. Besides, the building is one of the first reinforced concrete structures of the city (Sobutay, 1996). On the facade of the station building, a more modest language is observed rather than the eclectic elements observed in the pre-Republican structures. The building facade has a strong linear expression on the horizontal axis through the flat roof and cornices. The symmetry observed at the façade continued to a great extent in the plan. The spatial

configuration is composed of three separate masses. The entrance space is defined as a single volume through the mass in the middle part of the building. This minimal architectural expression, created for the first time with the station building in Sivas, has shown its effect on the architecture of the railway buildings and subsequent state buildings.



Figure 4.19. Sivas Train Station in 1930s

(Source: TCDD Archive, 2019)

The effect of the station building to the city was not only with its architectural style. In a sense, the concept of the station served as the gateway to the city. Sivas is the connection point with the outside world in the eyes of the citizens. The sign left by the station building in Sivas was not only realized with its architectural effects. It has also become a symbolized structure with the social effects it creates.



Figure 4.20. Architectural drawings and façade view of Sivas Train Station

(Sources: Personal Archive; TCDD Archive, 2019)



Figure 4.21. Sivas Train Station

(Source: TCDD Archive, 2019)

After the construction of the station building in 1934, in order to maintain the transportation function of the railway, the necessary service structures and service buildings were erected. In the following years, the repair shop structure and its administrative buildings were built, where the maintenance of the locomotives serving the surrounding provinces was carried out. Also, technical requirements, such as wagon maintenance and repair shops, were built. These areas are located around the station in order to facilitate the organization within the campus.

Moreover, some of the buildings constructed during this period are the water-station structure, logistics directorate, material directorate, and immovable property directorate. The Silo Building of the Turkish Grain Board (Toprak Mahsulleri Ofisi) was built in 1934 in this area (TCDD Archive, 2019). There are also housing units designed for employees in the Station area, and built around the station building. Most of the campus structures, like the others in the Railway, consist of geometric forms with simple expressions that emphasize functional anxiety in parallel with the modernist understanding of the Republican era.

4.2.2 Sivas Railway Repair Shop

Sivas Railway Repair Shop (Sivas Cer Atölyesi) was one of the most prominent heavy industry investments of the early Republic period. Moreover, Sivas Railway Repair Shop stands out as the first industrialization move in the history of the city. The railway factory is not only a technologically progressive breakthrough in the process of industrialization but is also expected to create economic gains in the central Anatolia. However, it is necessary to consider the establishment process of the factory as the construction of a new structure on the spatial and social level instead of reading it as the embodiment of a new economic and technological

breakthrough. The spatial and social transformations caused by this construction process have brought the city to a different point from its old times.

With the establishment of the railway factory, the concept of modernity, which constitutes the spirit of the Republican progressivism, has started to be experienced in an Anatolian city. In this process, it is possible to observe a city life in which the production styles change in every sense. This is a transformation in which social order is almost reconstructed. As stated by Keskinok (2019), the policies implemented during this period were not presented to the public in an imposing and oppressive manner. With the establishment of the industry as a public investment, the public was offered an environment in which it can reproduce itself and its environs. With this move, social practices, routines, and living spaces of changing society are aimed to create their own way of production. The industrial initiative through Sivas Railway Repair Shop was the reflection of this idea in Sivas. Thus, one of the most critical milestones in the spatial and social history of Sivas emerged with the establishment of the Railway industry.

At that time, Sivas was an economically weak city lacking the social and spatial opportunities of the contemporary cities of its time (Esen, 1999). The welfare level of the people increased with the improvements realized in the later period under the leadership of the railways and the railway industry (Üredi, 2006). The quality of life of the people has increased with the economic, social, cultural, and educational opportunities and places offered by these organizations. Therefore, the factory should not be seen only as an industrial enterprise. In addition to the arrival of the railway, the facilities offered by the factory campus to the city have been the driving force behind this transformation.

The demographic structure, social relations, and adaptation of the people who will have these opportunities to the process of change have emerged as the most critical parameters in the transformation process. According to administration in the Republic's early years, to realize this progress, society needed to adopt modernizing

and progressive ideas. The spread of the sense of belonging to the common purpose to the base of society would ensure the permanence of the transformation.

In that period, there were not enough working areas and job opportunities in this geography. (Yıldırım, 1993). Thanks to the established railway settlements, the people of the city have achieved an essential job opportunity. Due to the migration of people from the surrounding towns and countryside to work, Sivas has received migration for a while (*Yurt Ansiklopedisi Cilt IX*, 1983). Therefore, this period can be accepted as the starting date of rural to urban migration process for Sivas, which will be encountered throughout the country in the following years. As the production capacity of the factory increased over the years, the number of employees increased.

Moreover, the railway repair shop and factory became an organization where one of every 3-4 family members worked in the following years (Üredi, 2006). Therefore, the factory has affected the lives of the vast majority of the city's people. The fact that a large proportion of the population is affected has facilitated the spread of this transformation process to social bases.



Figure 4.22. *Sivas Cer Atölyesi* on October 22, 1939

(Retrieved from the Press Office of the TÜDEMSAŞ)



Figure 4.23 General view from *Sivas Cer Atölyesi*

(Retrieved from the Press Office of the TÜDEMSAŞ)



Figure 4.24. Opening ceremony of Sivas Railway Repair Shop (*Sivas Cer Atölyesi)*

(Retrieved from the Press Office of TÜDEMSAŞ)

Establishment Phase

Sivas Railway Repair Shop (*Sivas Cer Atölyesi*), which was founded in 1934 and launched in 1939, is another pioneering organization for the industrial production of railways (Coşar, 1993). While the initial objective of the factory was to repair and produce spare parts for steam locomotives and freight wagons operating in Central and Eastern Anatolia, has grown rapidly by its surroundings as many other railways (Coşar, 1993).

In 1944, Sivas Railway Repair Shop provided all the plastic materials needed by the tire factory and TCDD such as hose, gasket, wagon tire (*Ulaştırmada 50 Yıl*, 1973). Also, in the casting factory, which was established in 1950, parts of wagons and locomotives were produced. Additionally, the equipment factory launched in 1951 and the establishment of a second power plant dated back in 1953 (Ulaştırmada 50 Yıl, 1973). Even, until the end of the 1960s, a large part of Sivas was illuminated by the electricity of this factory. The factory capacities were upgraded with new production sections added in 1966 (Coşar, 1973).

In 1972, a new organization chart was created with an arrangement made in the railway factory. The industrial production departments in this institution are divided into three: locomotive repair factory, wagon repair factory, and general machinery factory (*Ulaştırmada 50 Yıl*, 1973). With this arrangement, the name of the factory changes, and takes the name the Sivas Railway Machinery Industry Organization (SİDEMAS) (Coşar, 1993).

During the planned investment period, when Eskişehir started to produce diesel-electric locomotives, Sivas assumed the entire production of steam locomotives. Moreover, in addition to the production of locomotives, the production of freight wagons also continued.

The name of the factory changed as TÜDEMSAŞ (Turkey Railway Machines Industry Inc. / Turkiye Demiryolu Makinalari Sanayi) in 1986 (Coşar, 1993). Today, TÜDEMSAŞ is located in Sivas city center with a total area of 418,000 square

meters; of which 110,000 square meters is a covered area. According to the official data of the establishment, a total of 22.329 wagons in 33 different types were produced between 1953-2018. In addition to this, a total number of 348,587 wagons that included many different types, were repaired between 1939-2018. Although the total number of personnel working in the factory increased to 5000 in 1970s, today, the total number of staff in the factory is around 1400 (TÜDEMSAŞ, n.d.).

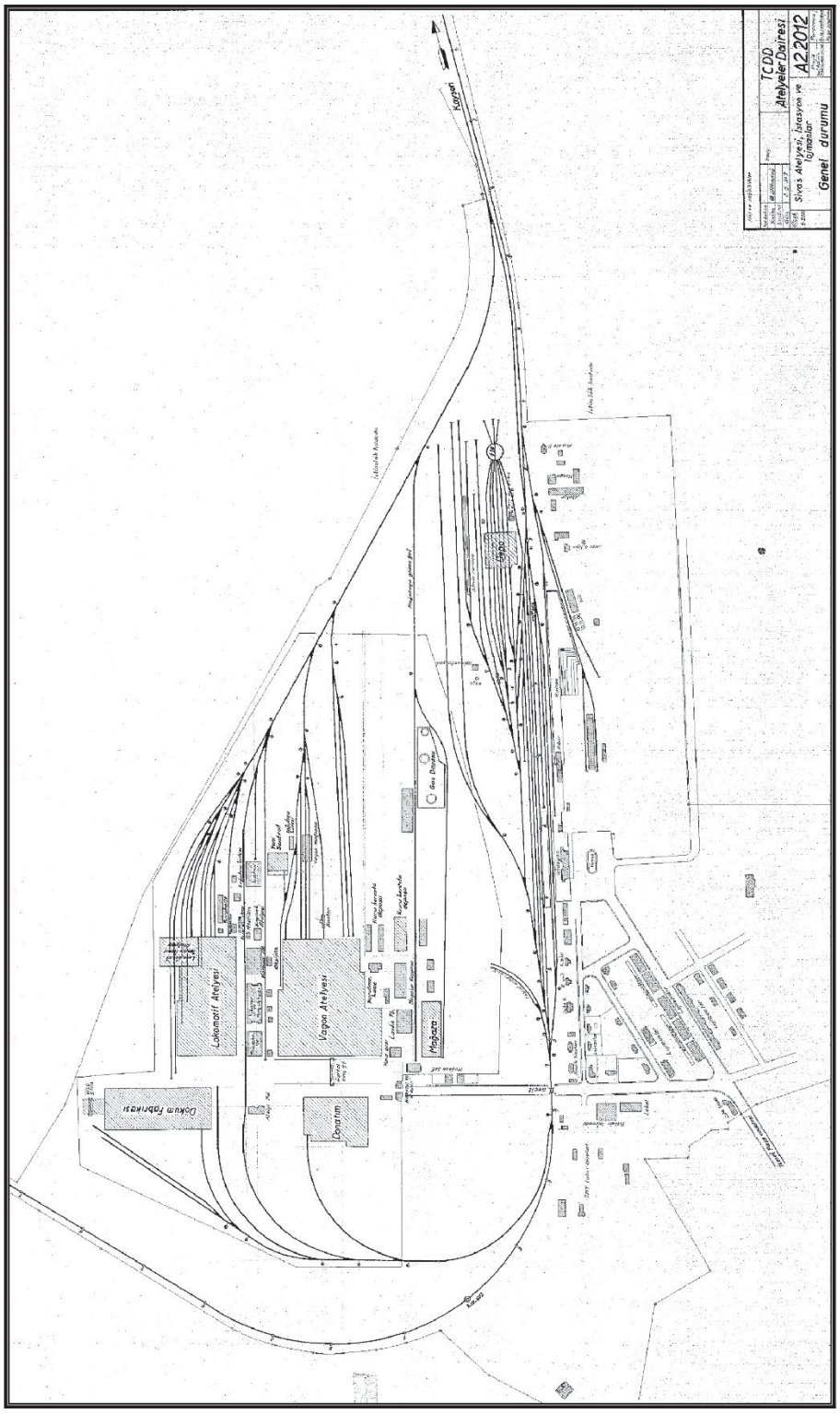


Figure 4.25. Site plan of Sivas Railway Repair Shop Campus in 1947

(Source: TCDD Archive, 2019)

Spatial Configuration of the Railway Factory

The Sivas Railway Repair Shop campus has developed continuously since its inception. Many buildings were added to the Railway Repair Shop campus from the establishment of the campus in 1939 until the 1980s. The technical needs of the factory, the need for spaces where new production activities will be carried out, and the need for warehouses have led to the construction of new structures. Sometimes unneeded structures such as power stations have been destroyed. On the Railway Repair Shop campus, there are structures such as wagon production factory, wagon repair factory, and casting factory, each of which has the comprehensive facility to realize production at an independent factory level. In addition, there are general directorate building, clock tower, workers' cafeteria, clubhouse building, cinema, material department buildings on the factory campus. The Atölye Mosque, built for the religious rituals of the ateliers, is now outside the campus. Indeed, it is still used by factory personnel.

When the site plan of the factory campus is examined, it is seen that the layout of the buildings in the settlement area is designed according to a functional scheme that will allow periodic repair and maintenance and production of the railway vehicles. For this purpose, the structures are positioned concerning each other. In this respect, it is similar to railway industry areas in other cities.



Figure 4.26. Site plan of Sivas Railway Repair Shop (*Sivas Cer Atölyesi)* in 1960s

The stages of the construction process of the Sivas Railway Repair Shop campus were as follows: first of all, production areas were built to meet the basic needs of the railway sector. In time, the units needed were built organically, depending on the activity of the workshops in the region. Besides, the factory campus is not only composed of structures where production activities are carried out. In addition to the administrative buildings and structures related to industrial production, the spaces in which the social functions are maintained are positioned in the context of the operational configuration of the industrial area.

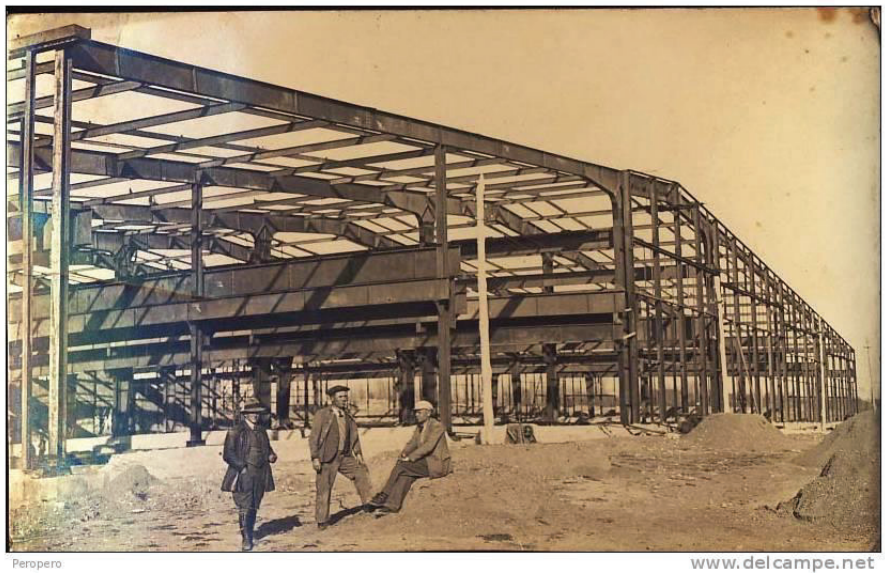


Figure 4.27. A view from construction of the Railway Repair Workshop (*Sivas Cer Atölyesi*)

(Source: www.delcampe.net)

As remarked by Bozdoğan (2001), cubic forms and precise geometric forms of early Republican structures formed an image of the new spatial order for society. Facades designed with unexaggerated ornamentation and simple expressions emphasize homogeneity among individuals. Thus, the architectural expression became the expression of the revolutionary ideas of the founding ideology. The modern architecture of the foundation period is shaped according to the new needs and opportunities of an industrializing country (Bozdoğan, 2001).

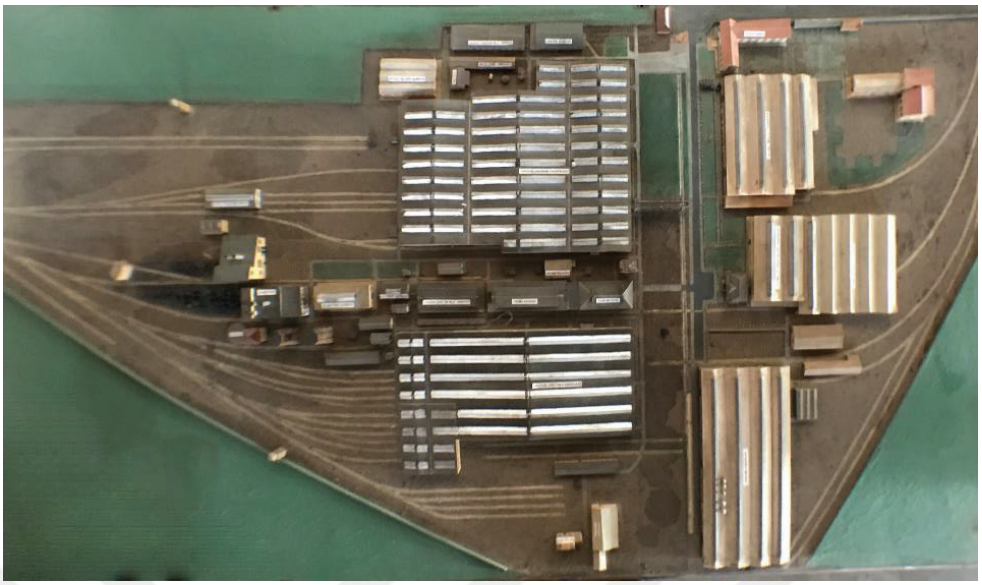


Figure 4.28. Architectural model of the Railway Repair Shop

(Source: Personal Archive)

The reflections of these ideas are also observed in Sivas Railway Repair Shop Structures. At the time when the railway factory was built, the simplicity of modern forms was seen as an extension of rationality and economic structure. The idea behind the architecture of the early Republican period, established on functionality and rationality. In the architectural practice of the period, traditionalism and production through imitation were rejected (Aslanoğlu, 1980; Bozdoğan, 2001). In the construction of Sivas Railway Station, which was first built in the Railway District, the preferred architectural expressions inspired the architecture of the factory district. The design of the factory buildings was created with even simpler architectural expressions. In the space organization and structural system in the industrial production spaces of the factory, the mentioned functionality has come to the fore. The large volumes needed for the production and repair of railway machines have been created with steel shear systems. The structural system of the buildings where industrial activities are carried out was constructed with the reinforced concrete carcass system. Openings in the roof system provide the lighting of the production areas.



Figure 4.29. View from the one of the production spaces

(Source: TÜDEMSAŞ Archive, 2019)

The most distinctive structure of the Railway Repair Shop campus is the clock tower. The tower, which is a significant result of the modern architectural practice in Sivas, is one of the landmarks of the city. It is one of the first buildings in the factory. The building was one of the tallest buildings in Sivas at the time it was built. The structure is about 7.5 times high, and its structural system is reinforced concrete. The preferred architectural language in the design of the tower is similar to the other structures in the Railway. The façade of the structure is free of unnecessary details, and the form of the structure is a rectangular prism. The facade elements that give the character of the tower facade are windows. It is designed to strengthen the expression of the structure in the vertical axis.



Figure 4.30. The clock tower of TÜDEMSAŞ

(TÜDEMSAŞ Archive, 2019)

The old cafeteria building, the head office building, and the materials office buildings have a distinctive character among the other buildings in the factory. Most of the structure of the factory has undergone facade renovation in the past years. Because of these changes in the buildings' facades, they seem to have moved away from their appearance as they were constructed.

Industrial production in the Railway Repair Shop, called today TÜDEMSAŞ, is continuing today. Although production is maintained at a level well below the total production capacity, the use of campus structures is a favorable situation for the conservation of buildings. This industrial area is not accessible by the public.

Because of this case, it was not possible to distinguish precisely the transformations of some buildings on campus. In the past years, many buildings that have not yet been registered as cultural heritage values have been damaged in the renovation applications. Another problem is buildings that are demolished or abandoned (Figure 4.31). Over time, some of the buildings inside the factory were demolished that were not needed.



Figure 4.31. One of the abandoned building in Sivas Railway Repair Shop (*Sivas Cer Atölyesi)*

(Source: Personal Archive)

4.2.3 Other Spaces in the Railway

During the initial years of the railway campus, an industrial complex was instituted subsequent to the construction of the buildings for the maintenance of the transportation services. From the year of 1940 and onwards, administrative buildings for the management of the railway operations had started to be constructed. Furthermore, social facilities such as social housing structures, the school, and the hospital were incorporated into the layout in order to serve the officials working in the Railway in accord with the populist and statist policies of the Republican regime.

The buildings constructed for the social requirements are generally placed on the opposite side of the station street, in proximity to the station campus and the railway factory. The housing units for the railway factory employees are positioned on the border of the factory area. In this sense, the Railway in the city was grouped into three campuses regarding a functional spatial organization. Transportation service areas in the station campus, an appropriate environment for the industrial activities in the Railway Repair Shop campus, and living space for the employees in the residential areas were provided (TCDD Archive, 2019).



Figure 4.32. Aerial view of the Residential Area dated in 1959

(Source: Unknown)



Figure 4.33. Districts in the Railway grouped by function

Most of the residences in the Railway were developed between 1933 and 1956. Later, other housing units were added to the residential area in the 1970s. The first period buildings in Railway site and the recently built houses have typological differences.

The first residential buildings on the campus are arranged in line with the station building. It is very close to the workplaces of the users. Those housing units were initially designed for managers and civil servants, are designed as single story and

double story. They are usually detached and have gardens. Unlike the other buildings in the Railway, some of the first residential buildings have traditional emphases on the façade. These buildings have similar facade features with some state buildings constructed in Sivas before the Republican period, such as arched windows and cornices. Plan schemes, unlike traditional Sivas houses, were created based on modernist criteria.

The residential buildings built in the 1950s were purified from the traditional expressions recognized in the first built houses. The structures, which were formed as adjacent, created linear axes in the settlement area and shaped the circulation of the residential district. The distribution of the structures in the area differs from the configuration in the concept design project drawn by Ali Pertev Horoz for the Residential Campus of 1937 (TCDD Archive, 2019).



Figure 4.34. Housing units in the Residential area

(Source: TCDD Archive, 2019)

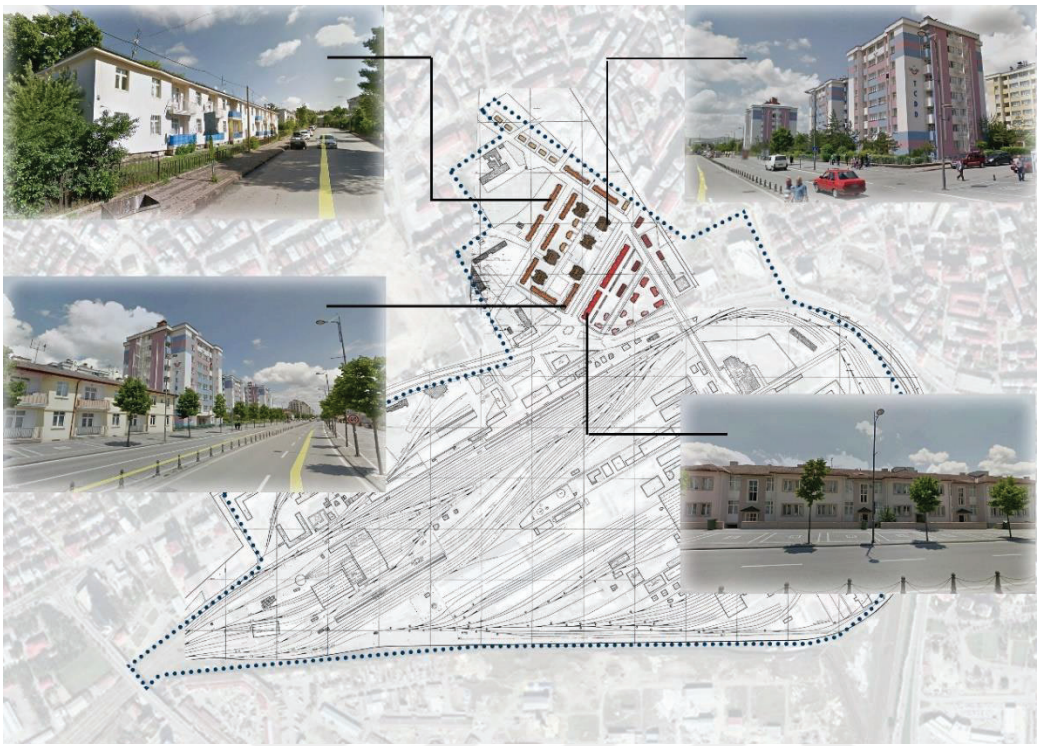


Figure 4.35. Housing units in residential area

(Source: Google Street View)

Another dwelling unit in the area are the buildings that were established for employees of the Sivas Railway Repair Shop. Such buildings began to emerge in the early 1940s and were situated parallel to *Istasyon Caddesi*, which began to be developed in those years. The continuity of the facade was achieved with the adjacent residential structure having a linear form. These structures can be considered as the precursor of some living areas that were established later in the Railway district. The residential buildings created following were mostly built for the managers of the railway factory. It is commonly designed as single-story twin houses or double story detached units.

By the end of the 1970s, residential buildings erected within the Railway district became the first high-rise apartments in the city. Those apartments created as approximately eight floors are located in front of the station street alongside other buildings. Between 1979 and 1985, a total of 6 buildings of this type were constructed.

After 1940, structures were developed to strengthen the social facilities of the Railway settlements. Until 1950, in the Railway district, PTT branch chief building, heating center, cafeteria were built. In the same period, the primary school was established next to the housing area. Today, this structure continues to serve as Kadıburhanettin Primary School. In the following years, buildings such as apprentice schools, hospitals, and health directorates were built in the period up to 1960 to serve railway areas (TCDD Archive, 2019).

The apprentice school was established to meet the needs of qualified and trained technical personnel of the railway organization. Thus, the activities within the Railway district have been assigned a railway-oriented training function. That is the period when the Railway operates at its most intense and high capacity. TCDD 4th Regional Directorate building and CTC (Centralized Traffic Control) Building were built in the following period.

The Railway Hospital, established in 1952, stands out with its architectural features, among other structures on the campus. The hospital building reflects the simple design approach of the period with its original plan scheme, facade character, and architectural elements (Keklik, Akalın & Özkan Yazgan, 2019).

4.3 Transformation of Urban Sphere

During the process of the Industrial Revolution, a spatial metamorphosis is observed in the cities from the geographies where the revolution transpired with the positioning of the industry in the city. Due to the development of the industry within the city, novel dilemmas such as the growing housing problem, environmental pollution, loss of value and importance of the historical city, and the formation of slums arose (Keskinok, 2019). Despite such problems, as stated by Keskinok (2019), the sense of publicness created by the political struggles of the working class later contributed to the formation of the culture of public life in European cities. This can

be viewed as one of the contributions of the culture of production in the formation of the culture of the common life of the cities.

The approach towards industrial spaces changed in the 20th century. With the influence of Fordism, the strategy for industrial spaces changed, and their development outside the city was anticipated. As argued by Keskinok (2019), this has brought about problems of the impracticability of steady infrastructure investment and transportation. When we look at the practices of industrial development and urbanization in the early Republican period, a contrary situation is observed compared to the cities in other countries in terms of the changes in the relations between transportation, industry, and city. Except for the large cities where the capital is more conspicuous, such as Izmir and Istanbul, the industrial areas in the Anatolian cities are located adjacent to them. In other words, the factories were embedded in small cities whose economy once relied on traditional production techniques and never experienced an industrial development before. Thence, "industrial cities that are intertwined with the city, and at the same time whose capacity of integration with the cities was enhanced have been created" (Keskinok, 2019, p. 25).

Industrial areas and industrial cities projects established by the state during the early Republican years differ in design and planning from the development models of European industrial cities. In the urbanization process of developed countries, the spatial transformation started with the addition of railway lines to the developing industrial areas in the city center. All of this campus constructed in Turkey are located periphery of the city. That is a characteristic of industry in Turkey. The location of the railway settlements in the Anatolian cities, where the railway lines reached, has been a determining factor for the industrial settlements. Therefore, industrial areas are in direct contact with railway. Where the Industry and Railway were evolved together in Anatolian cities, triggered both the spatial and social transformation.

4.3.1 Railway as a Transformative Tool in the Urbanization of Sivas

The railway and industrial organizations in Anatolia are designed as campuses that include places for the vital necessities of the employees besides the production areas. As highlighted by Keskinok (2019), Industrial settlements and railway areas have formed spatial backbones with their cities. Moreover, these areas have provided public services through the facilities that it has. In this way, it integrates socially with cities (Keskinok, 2019). Industrial organizations have contributed to cities in social and cultural contexts. Public services provided are the elements that provide this integration (Keskinok, 2019). Cities, where industries are founded, are typically cities where urbanization and infrastructure have not yet been developed. They also do not have spaces to contribute to cultural advancement. Artistic and cultural venues, sports venues, and educational amenities in the industrial areas were also open to the public. Therefore, it is quite remarkable that the services produced in the industrial areas also provide service to the cities where they are located. Because of the relationship between industrial settlements and their contribution to the city, the form in which they were caught with the city actually has the design of an ' industrial city' (Keskinok, 2019).

Tekeli (1998) states that the establishment of industrial settlements by the state rather than private enterprises is a result of the policies towards modernization that were effective in the Republican period. The spatial reflection of the modernization has become evident with the idea of creating spaces of contemporary, modern, and productive citizens (Tekeli, 1998). The producing society has a dialectic relationship with the place it is located. The characteristic feature of all industrial cities developed with industrial plans is that the industry developed with the city, rather than being separated from the cities. Therefore, industrial areas have been designed as a driving force in urbanization processes. According to Keskinok (2019), industrial sites have many features of Tony Garnier's idea 'industrial city' regarding their configurations. This situation becomes evident with the spatial arrangements of the factories themselves, their location choices and their position integrated with the city.

Keskinok (2019, p.26) explains the relationship between industrial areas and cities in the following sentences:

> "These organizations have served to integrate the culture of industrial production and the historical heritage of urban culture, the agricultural production culture and the industrial production culture, the modernization of urban culture and the progressiveness of industrial culture."

In relation to the policies of the early republican period, railway areas and industrial zones are working as stimulators for the development and urbanization of Anatolian cities. Developments in parallel with the effects of transformation processes in industrial cities and cities involved in railway transportation were also observed in Sivas city center.

When the historical development of Sivas city center is examined, many breaking points affect the transformations in the urban fabric. The construction of the Railway is perhaps the most prominent of these milestones with a profound effect. This line was opened on 30 August 1930 with the participation of the prime minister of the time, İsmet İnönü.

The city of Sivas did not exceed its borders of the fortification in the Seljuk period until 1930 and appeared as a city developed around the historic center (Akbulut, 2009). This has changed for the first time with the effects of the Railway. The Sivas Railway is located in an area approximately one kilometer from the town square, which Albert Gabriel noted Kayseri Gate to the south-west of Sivas city center.

In the following years, many buildings were built within the Railway. The railway station, which was first laid in 1927, was opened in 1934. Thus, the first symbol of the modernization movement of the Republic period in the urban space appeared. Then, with the opening of the Railway Repair Shop in 1939 and the construction of residential areas, the symbols of the Republic's ideology became visible in the city. These investments led to a new focal point in the city center.

The urban space has been transformed on an immense scale in the process that began with the arrival of the railroad. In the south-western part of the city where the Railway district is located, there was no urban development observed before. In other words, this area has been added to the city by being positioned on its periphery, which could not exceed its fortification limits. Although the remains of this fortification almost entirely disappeared by 1930, it has been the border of urban development. Thus, with the construction of railway buildings over time, the first area where the transformation was observed in the urban space became the vicinity of the Railway district (*Sivas İli Analitik Etüdleri*, 1967). Residential settlements are the first spatial change in the region. The need for shelter for the population moving to the city with the consequence of state investment has been the initiator of this development.

Kıray (1998) states the following about the housing spaces of societies that have been transformed with the progress of industrialization: with the emergence of modern industrial society, many people have been working in the same factory or office, in the same building or the same building within the same production or service unit. Kıray's (1998, p. 138-139) statement on workers and civil servants, which he calls the new middle strata, is as follows:

> "They want to reside in the same location in terms of accessibility to settled businesses concentrating in the same regions in cities. They all desire to have the same conditions and housing at the same distance. Since the end of the 19th century, industrialized societies have solved this challenge with multi-unit buildings and apartments in the same land. In other words, the apartment is the home of the newly emerging middle layers of modern industrial societies, workers, and civil servants."

According to Kiray (1998), the old peasants who had moved away from agricultural activities and came to the city became civil servants and workers in complex organized workplaces. Parallel to this situation, as the accessibility of the present

shanty towns to central workplaces increases, these two dimensions will mutually affect each other and, it will be expected to become apartment buildings.

In parallel with what Kıray (1998) stated, new housing constructions in the vicinity of railway settlements began to appear with the impact of Railway. Housing needs of migrant workers and civil servants have risen with the city receiving migration from neighboring provinces and villages. Some of the employees and their families stayed in the railway lodgings, and some of the employees started to stay in the slums away from the city center. After a while, the agricultural areas close to the railway settlements were zoned for construction. Some of these lands are allocated to cooperatives established by Railway employees. The co-operative-built houses were mostly single-story gardened houses ("Sivas Municipality Archive," 2019). Hence, more planned settlements were established in this area by means of the cooperatives.



Figure 4.36. A view from the construction of the new settlements in 1950s

(Source: Elif Deniz Archive)

The houses built by cooperatives are within the borders of Kadıburhanettin, Kümbet, and Altuntabak neighborhoods. Some of the buildings in these settlements, which emerged since the 1960s, are still in use. Furthermore, there are not only cooperatives of Railway employees in this region. The employees of the Regional Directorate of

Highways have been involved in these cooperatives in some areas. These residential areas are still referred to today as *Altın Evler* and *94 Evler.* Besides, various urban facilities such as schools, parks were built around these settlements, similar to the residential area of the Railway. The school was founded in the early 1960s under the name of Devrim Primary School and still continues education under the name of Gazi Paşa Primary School.



Figure 4.37. The new settlements formed with co-operative-built housing units

(Related info obtained from Sivas Municipality Archive)



Figure 4.38. Co-operative-built housing units

(Source: Personal Archive)

Besides, 3-4 story apartment buildings were built around the Railway. The residences built in this region were influenced by the architectural style of the structures in the railway. Façade designs generally have a simplistic architectural expression.

Thus, under the influence of the Railway district, new settlements have begun to emerge in areas where there has been no development. In other words, the railway played a role in the urban space transformation and determined the city's development path. Moreover, this impact did not only occur on the urban scale but on the architectural scale. The architecture of the structures in the Railway district inspired the design, layout and construction techniques of the city's newly built structures.

The effects of the Railway on the urban morphology of Sivas are not limited to the formation of new settlements. The historical city center, which has a history of approximately two thousand years, has also undergone a transformation process after the establishment of the railway. As a result of the introduction of the railway, similar changes took place in Sivas as in other cities of Anatolia. In the early 1930s, *İstasyon Caddesi* was designed to establish a link between the city center and the station (figure 4.27).

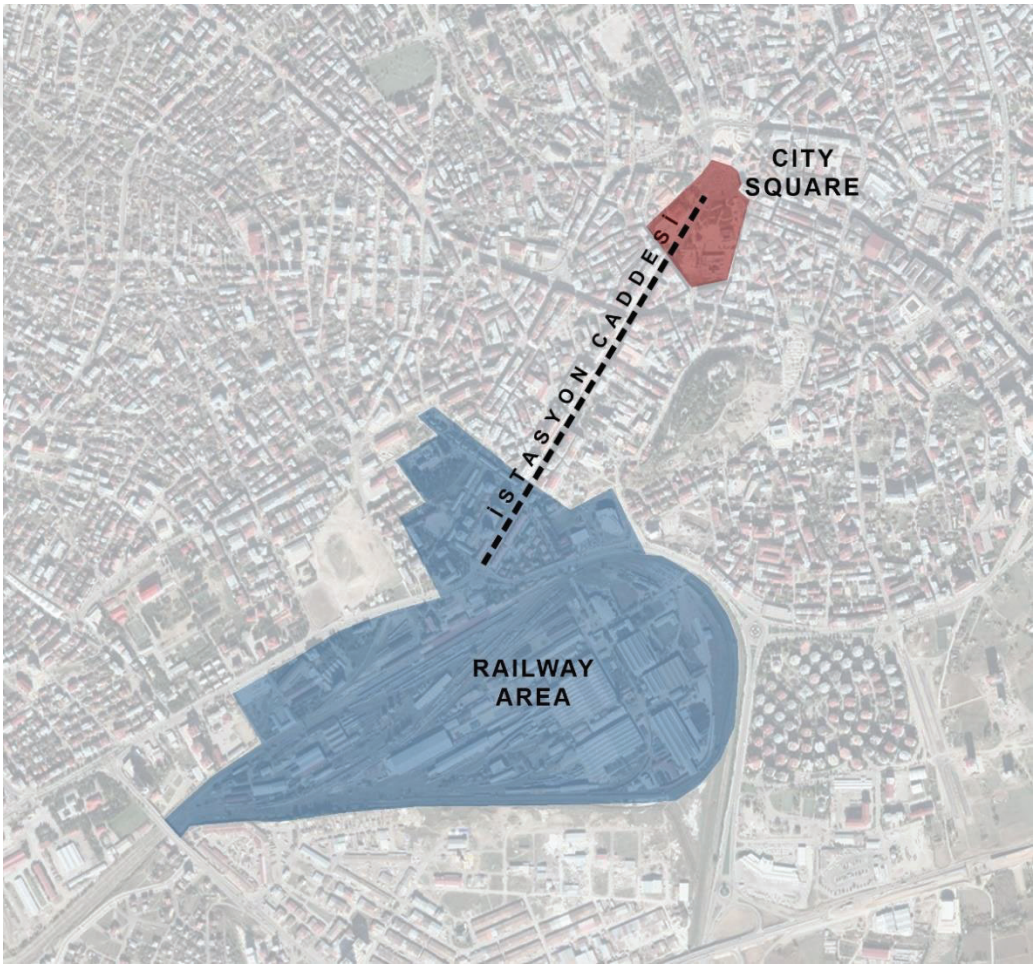


Figure 4.39. *İstasyon Caddesi* connect Railway to historical city center

As pointed out by Cuinet (1892) until the early 1930s, Sivas city center consists of state buildings, historical monuments, and single-story residential areas with gardens. Firstly, some areas were expropriated, and the houses demolished to build *İstasyon Caddesi*. Therefore, the linear axis between the Station and the city square was achieved.



Figure 4.40. *İstasyon Caddesi* at the beginning of 1930's

(Unknown Source)

According to Bilgin (1998, p. 260), *İstasyon Caddesi* examples represent a modernist zoning understanding with the distribution of the state buildings, the size, the green refuges, the array of trees, the segregated cars and pedestrian traffic. At that point, similar to Bilgin, Tanyeli (1998, p. 105) says that "The concept of *İstasyon Caddesi* was the first example of modern geometric discipline in many Anatolian settlements that wanted to be brought to the city and urban life ..." According to Arıtan (2008), *İstasyon Caddesi* is linked to the city square within the Boulevard-Square-Public

Buildings Series, rationalizing the new urban life and turning it into productive public spaces where people are socialized.



Figure 4.41. *İstasyon Caddesi* in 1940's

(Unknown Source)

The opening of the *İstasyon Caddesi* was the beginning of the firsts in modern urbanism in Sivas. Over the years, this street has had an entirely different appearance with the emerging architectural typologies. The first apartment building in Sivas was built on this street in 1932 with five floors. This building, called *Emek Apartmanı*, was one of the first examples of urbanism in Sivas. In the following years, many high-rise apartment buildings continued to be built. In addition, in later periods, several state buildings were built on *İstasyon Caddesi*. The architecture of those structures have been under an influence of modernist architectural style of Railway settlements.

The core of Sivas has a multi-layered past. The town center was built around the first settlement area of Topraktepe. The city square is still in good condition with many historic buildings. Examples of the multi-layered history of the city are Şifaiye Madrasah and Buruciye Madrasah built in the 13th century, Kale Mosque built in the 16th century, State buildings constructed in the 19th century. In addition, the building where the Sivas Congress was held 4 September 1919, on which the principles of full independence and national sovereignty was adopted as the principle of National Struggle, is on Istasyon Street. This contact between the spaces where the goal for economic independence set as one of the most significant policies of the Republic, was embodies and the Sivas Railway, one of the country's most prominent independent investments in history, is significant. After the opening of *İstasyon Caddesi*, many modern buildings were raised on the street. In other words, a modernist layer has been attached to the city's multi-layered spatial history. Therefore, the historical setting and the Republic's new spaces came together, so that *İstasyon Caddesi* became a place where all of the city's historical layers could be experienced. As a result of these associations, the city's spatial and historical continuity was strengthened.

4.3.2 Construction of Collective Memory

Qefqe According to Tekeli (2011), the most widely accepted understanding of urbanization in Turkey is the Chicago School approach. Two perspectives were formed on the concept of urbanization under the influence of the Chicago School of urban sociology. According to the first definition, urbanization is considered as the concentration of the population in settlements above a certain density and size, and it is complemented by specifying the characteristics such as non-agricultural activities and heterogeneity (Tekeli, 2011). In the second perspective, the adoption of values, behaviors, and attitudes called 'urban culture' is defined as urbanization. The population brought by specialization engages in 'impersonal' relationships

(Tekeli, 2011). Relations are established through contracts based on the balance of interest. Secular, individualist rational attitudes prevail in this balance.

According to Tekeli, these two perspectives for defining urbanization are complementary. Tekeli (2011) explains that this complementarity can be established with the help of a third element:

> "Societies need both a specific settlement pattern and population accumulation and the values and attitudes of this population to be called "urban culture" in order to be able to industrialize and maintain their industrialization while passing through the evolutionary stages of their development. This need is met by the increase in the number and size of new cities and the spread of urban culture in the industrialized countries." (Tekeli, 2011, p. 28)

Tekeli (2011) states that the Chicago school's view of urbanization is influenced by the conditions of the industrialized United States. It draws attention to the harmony of this complementary definition of two-way urbanization: "The term 'urbanization' includes both the process of accumulation of population at certain points and the process of spreading urban culture. However, the term 'urbanization' in Turkish could not carry both concepts and differentiated. *'Kentleşme'* (urbanization), as well as *'kentlileşme'* (the term depicting the socio-cultural process of being urbanized), has emerged." (Tekeli, 2011, p. 28) Tekeli (2011) associates this condition with the lack of simultaneity of the two dimensions of urbanization in Turkey.

Urbanization in Anatolia has gained a new dimension compared to the Early Republic period and the previous periods. First, the construction of Ankara as a modern capital made the Republic's policies evident. In a sense, this construction process begins to create representative spaces for the development of social and spatial practices. With the interventions in the city, the dynamics of daily life become quite different.

The experience gained from urbanization practices in Ankara has also been manifested in the urbanization processes of other Anatolian cities such as Sivas. The city of Sivas is developed in comparison to the surrounding provinces and has a central location. Also, it has gained a vital hub function within the railway network. For this reason, the investments to be realized in Sivas are very important. Spatial and semantic reflection of early urbanization movements in Turkey that adopted the goal of building a modern society and modern city was also seen in Sivas.

Sivas, where became an important crossroads of the railway network, experienced a significant change in city life and daily practices after the 1930s. The arrival of the railway and the establishment of the Sivas Railway Repair Shop paved the way for the formation of new spatial practices and the production of meanings. Thus, an essential representation of the modernization objective of the Republic emerged in Sivas. With this transformation, urban culture and urban memory began to form. Therefore, regarding the modernization of Sivas, railway organizations are very valuable for the history and culture of the Republic because of the values it symbolizes.

However, the modernization of social life is directly related to the urbanization process mentioned by Tekeli (2011). The realization of the goal of creating an urbanized modern citizen, the transformation that is required to be realized in the social sense, is a process that progresses very slowly compared to the transformation and modernization of the urban space emerging with the functions gained to the city.

The idealized Republican citizen can only be achieved with a socially integrated community. Collective memory is formed with the participation of the whole community, based on shared values shared by everyone. The re-production of society in daily life and the creation of its own place through changing production relations correspond to the process of creating common values (Uludağ & Aycı, 2016). It is necessary to build a memory based on shared values in order to establish an urban environment in which modern and contemporary behaviors and spatial practices evolve. As Lefebvre (1991) points out, in this process, while space is socially

produced, social dynamics shift with the effect of space, and social systems are re-produced. Hence, spatial practices rearrange both life and space (Lefebvre, cited in Uludağ & Aycı, 2016).

The dynamic process of production between society and space leads to the sharing and maintenance of urban public space. The public sphere emerges as an area where various social identities are produced at both discursive and social levels, where they are legitimately and visually encountered and interacted (Uludağ & Aycı, 2016). Thus, collective memory is not the accumulation of rituals produced by discourses passing from father to son. However, the totality of values and spatial memory shared collectively by every part of society. The re-production of this memory is accomplished through repeated social practices and urban symbols. Thus, urban space takes its place in social memory in the context of spatial practices of individuals and the meanings attributed to it, which is the basis of urban culture (Basa, 2015a).

In order to understand the nature of memory and culture, At that point, Lefebvre's (1991) studies on the concept of space are precious. The multilayered theoretical perspectives presented by Lefebvre (1991) provide a theoretical basis for different research areas. Lefebvre (1991) created a spatial triad to understand the place. The definitions of perceived space conceived space and lived space are the concepts that make up the spatial triad. According to Lefebvre (1991), space can be considered of as a social production in that trilogy: perceived space: "perceived in everyday life (a spatial practice), conceived space: "lived through symbols and meanings (space of representation), and lived space: "abstractly designed by architects, planners (representation of space)" (Basa, 2015b; Lefebvre, 1991).

The spatial trialectic created by Lefebvre for the social production of space offers an expansion not only for understanding the space but also for the construction and sustainability of urban memory. As highlighted by Basa (2015b), representation of space, which is one of the components of the trilogy, gains its meaning as a place of representation by its intersection with the spatial practices of the citizen. Urban

tissue, perceived in business life, cultural life, leisure time, and housing environment (in other words ‘everyday life’), is encoded naturally by spatial practices concerning individual memory (Basa, 2015b; Lefebvre, 1991). Basa’s (2015b, p. 28) explanation at that point as follows:

> “Not only the historical, cultural central areas of the city, parks, squares, or the scheme of using the individual urban spaces of the citizen, but also the areas that are seen as secondary, that is figuratively accompanying spatial practices, have an important role in this coding.”

Therefore, the sustainability of this spatial memory is essential as it can be produced in everyday life, regardless of any authority. The changes that occur over time in cultural, social, and technical contexts, and the transformation of these processes into social and spatial practices with their dynamics, form the basis of spatial memory's continuity. Moreover, the sense of social ownership and belonging is inherent in this memory. The protector of social sustainability should not be planning policies or laws, but society's relationships and instincts. (Uludag & Ayci, 2016; Halbwachs, 1992; Basa, 2015a).

The social structure of Sivas began to change with the realization of the investments in the Early Republican period. The modernization movement of the Republic was a turning point for the construction of a new collective memory. With the effect of this change, Railways started to add new meaning to the lives of the citizens.

The influence of Sivas Railway on social change in the city is not only the result of the development of transportation or that of an industrial area but also as a part of the project to modernize the city and society through its socio-cultural contents. According to Tanyeli (1997), urban modernization/change should be considered not only as a change in the appearance of the city but also as a radical change in the rhythm of life of the inhabitants. During this period, the railway became the places where the people met modern living means. According to Çetin (2008), Turkish

people met cinema, theater, piano, doctor, hot water, modern toilet with a sewer and garden arrangement for the first time through the railway. In addition, according to Tanyeli (1998), the first social centers of Anatolia in today's sense are the stations. The elite part of the society, which is mostly civil servants, gathered in the casinos and discussed political issues (Tanyeli, 1998). Therefore, the railway is generally significant in terms of creating western life prototypes for the modern subjects envisaged by the Republican regime. In parallel with the statements of Tanyeli, a similar process was experienced in Sivas.

The people of Sivas had easy access to the surrounding geographies with the arrival of the railway. The interaction between Sivas and the developed cities had increased so that the effects of modern Turkey had the opportunity to impact more quickly Sivas. Besides, modern time awareness for intercity transportation has begun to evolve with the station. The population was introduced to new building technologies thanks to the construction of the railway structures. At the same time, industrial activities in the city center brought the industry's technology and effects into citizens' lives. The dimensions of social change in Sivas are more comprehensible through these results.

When the physical and social change that occurs after the Railway is examined concurrently, it is more meaningful to read the social change experienced by the city in the Early Republican Period. The transforming role of the railway is not only within the limits of its territory but also within the urban space. Moreover, one of the most critical dimensions of the city's social change is that the facilities of the railway campus are offered not only to the employees but also to the use of the people of Sivas. Thus, over time, Sivas has gone beyond traditional life patterns (Üredi, 2006). Accordingly, social spaces such as clubhouse, cinema, library, and PTT building and the experiences associated with these spaces have an essential function in social change. The Railway, industry, and social facilities within the railway campuses have brought a new movement to the city. The city, which does not have any re-creative space before the Republic, has gained this opportunity thanks to the Railway. Activities such as education and cultural activities, the library, and

Demirspor have come to the fore as opportunities that change daily life in Sivas (*Demiryol Dergisi*, n.d.).

Another noteworthy point of this social change is the inclusion of women in the social life in the city. Previously, women whose lives have been shaped in a restricted environment between home and neighborhood have begun to actively benefit from public spaces equipped with cultural and social facilities. Interviews with the families of the Railway employees also revealed that women in the city frequently participated in activities such as theater, concerts, and film screenings in the cinema hall of the railway factory. With such activities, harem-salam practices in social activities have gradually disappeared. Women have become more active and participating in public space. Thus, the social transformation of the citizens did not remain within a theoretical framework but also spatially.



Figure 4.42. The photograph shows that a foreman who works at industry in Sivas, and his family, associated with the concept 'idealized Republican family', dated 1965.

(Source: Elif Deniz Archive)

The daily life practices of the railway workers and social practices of their families reinforce this background of collective producing and creating, and in a way, has created a shared memory. That was the basis of collective memory shaped by individual experiences in the contexts of cultural and social cohesion. At this point, daily life practices in the residential district of Sivas Railway have been a remarkable case. The railway houses in Sivas mostly have their own gardens. In the heading of the "*Tarım Köşesi*" in the Journal of Railways (*Demiryol Dergisi*), there are informative articles on agricultural activities that can be applied in the areas of railway houses (*Demiryol Dergisi,* 1951). When this situation is taken into consideration, it can be concluded that the policies of the Republican era encourage a collective mode of production in the living spaces, as in the industrial field.

Indeed, agricultural activities have been carried out in the residential areas in Sivas to a level that will contribute to household kitchens. Furthermore, according to information from people living in this area, frequent gathering activities took place in gardens in residential areas. The families prepared the foodstuffs that they obtained from their gardens in order to consume in winter. Traditional activities are linked with modern spaces, and collective production has gained another meaning. Citizens were able to maintain this collectivity not only in places where work, production, and cultural functions were provided but also in primary living spaces. They were able to transform the spaces offered by state investments into their own spaces and rebuild the dynamics of social relations with these productions.

Furthermore, one of the new spaces that emerged as one of the effects of the railway on urban space is *İstasyon Caddesi*. In the course of time, however, this has become a public space in which the new social order has been created and imposed meanings. *İstasyon Caddesi* has become a center of attraction after the town square. It has hosted activities and social cohesions that the public has never experienced before. For example, societal rituals such as national holiday celebrations, protocols such as the reception of artists or state officials usually took place at the station, *İstasyon Caddesi*, and the city square. Stations and *İstasyon Caddesi* has been chosen as an

urban area where the nation-state is organized through its activities such as National Holidays and celebrations, and it performs its spatial actions and productions.



Figure 4.43. A view from the ceremony for National Sovereignty and Children's Day in 1971

(Source: Erhan Ertürk Archive)

Başgöz (2017) tells about the welcoming ceremony held at the station when Atatürk came to Sivas and the ceremonies on İstasyon Street during national holidays. Also, until the 2000s, the parade began from the station and ended in the square. Therefore, while there are practices that change the rhythm of the city's stationary life at *İstasyon Caddesi*, furthermore, many activities have been realized for the construction of social identity and memory as well. On special occasions, events such as parades and celebrations, which were attended by people from all walks of life, turned into rituals of the modern city. In other words, considering the public interest in those activities, their preparation with care, and the intensity of participation, it is seen that these

rituals are not shaped by the imposition of the state ideology. The transformed society has embraced progressive values. In this way, the events organized over the years turned into rituals.



Figure 4.44. A view from marching in *İstasyon Caddesi* in 1962

(Source: Unknown)

Fahri Er, who worked as a foreman at Sivas railway factory, in his article dated 1992, contains highly valuable expressions regarding the memorial value of railway places and railway culture. Er (1992) states that the soldier farewell ceremonies are from these rituals. During these farewell ceremonies, all the locals gathered in the station area. Even people who would not send any of their relatives to the military participated in these ceremonies and brought gifts to young people. People going to the military were sent off in a feast atmosphere (Er, 1992).

From the statements of Er (1992), we can better understand the place of the Railway and the railway spaces in the collective memory. Fahri Er entered Apprenticeship

School in 1942 and worked at the Railway until his retirement as qualified technical personnel. Er (1992) points out that working at the Railway is a coveted and admired situation in society. Er (1992) talks about his and his friends' desire to be a part of the Railway since primary school. He says he spends most of his time in the station area after school. Explains this as follows: Since the 1940s, the most populated areas of Sivas have been the Station Area and *İstasyon Caddesi*. Many booths were open in this area, where a large crowd gathered. Therefore, these areas became the most important socialization place in the city. The station was the meeting place for lovers, the place where passengers were greeted and sent off. It has come to the fore as station space of memory due to rituals and daily life practices. In addition, Er (1992) states that memory is eternalized by the railway. He emphasizes that this memory is beginning to disappear as the railway loses its importance, and these areas move away from the old days. Er (1992) argues that rail should be used more and wants to be supported by new technologies.

The progressive movement of the Republic did not only remain at the legal and theoretical level but also led to the progress of social and cultural processes and initiated the process of building urban memory. Hence, this progressive transformation movement was able to maintain its dynamic structure by reproducing itself through the interaction of space and society.

The destruction of the Railways Area, which is one of the most important cultural heritage areas of Sivas, with the wrong interventions, means the destruction of urban memory and the history of the city. As argued by Uludağ and Aycı (2016, p. 764), spaces that cannot sustain the mission they represent and cannot transfer their ideological and urban context are doomed to transform and vanished in time rapidly. Because the system of values and collective memory, which require their preservation and maintenance, has disappeared. Unprotected values and unsustainable cultural practices lead to the loss of such memory spaces.

The conservation of the railway areas is vital in conveying the city's history and culture to the future. Despite the transformations it has experienced over the years,

Railway has been able to carry its meanings and values to the present day. The preservation of the spatial integrity of this area and its existence concerning the Railway is essential for the conservation of these values. Maintaining the contexts of the values of the railway areas and transferring them to future generations is very important for the continuity of the historical and cultural heritage of the city. Thus, the memory of the past and a new layer of memory formed over a living space will create natural and consistent integrity.

4.3.2.1 Impacts of the Railway Repair Shop on Urban Daily Life

The factory area is not only an industrial production place but also a social value production place within the city. Besides being an economic enterprise, the railway repair shop has also local and social units such as Demirspor. In addition to the industrial production structures in the factory campus, Demirspor has social facilities, wrestling halls, tennis and volleyball courts, shooting range, music study hall, cinema, market, sports fields, wedding hall and canteen. The Factory Campus has several locations that offer functions for the first time the citizens may experience. Thus, the factory area has served as the cultural and performance center of Sivas for many years.

Cultural Activity Venues

Especially the cinema hall, which contributes to the cultural development of the city, has marked traces in the memory of the citizens. There are many different cultural events in this hall where citizens could have joined by their weekly subscription cards. Theaters that came to Sivas within the scope of the tour exhibited their works in this stage. Sound artists from within and outside of Sivas organized concerts in

this hall. Not only the factory members but also the people around them, their families and other citizens participated in these activities. Therefore, these spaces cater to the various needs of employees and citizens (Şener, 2014).

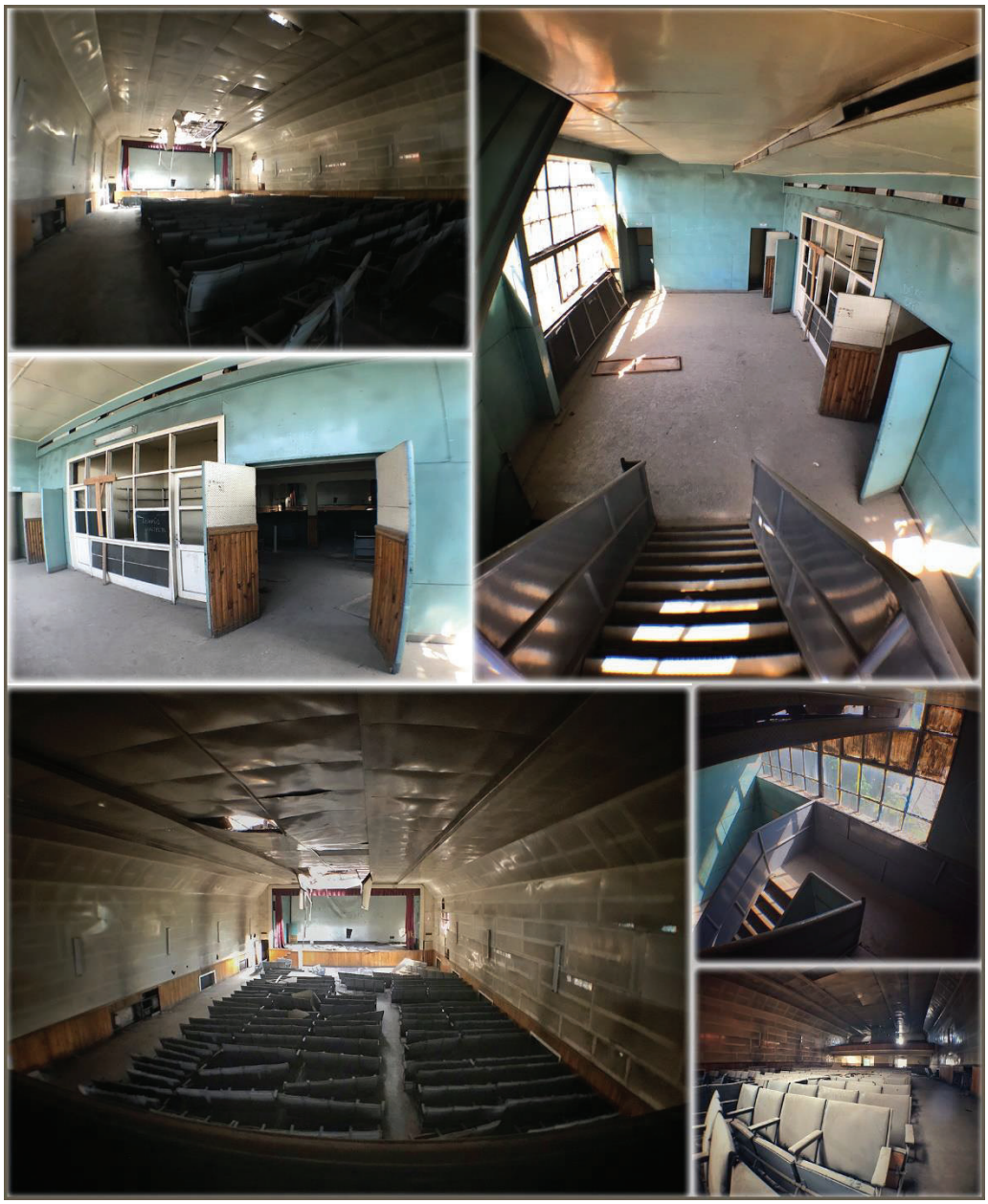


Figure 4.45. Cinema Hall in *Sivas Cer Atölyesi*

(Source: Personal Archive)

The clubhouse, which is one of the social service buildings in the area, is considered as a place where the staff can spend their spare time and do leisure activities such as reading or resting. The canteen building provides a basic humanitarian need by offering staff lunch and dinner at a cost-effective price. Music hall, which is another venue in the area, conducts the works of the famous band, Demirspor, in the city.

In addition, thanks to the ski equipment made for the benefit of the factory facilities and the sledges for workers' children, skiing has become a well-known sports-entertainment activity for people of all ages in Sivas. Since the 40s, many people in the city have begun to go to the surrounding hills for skiing. When these activities are examined, it is easy to observe the change in preferences in the realization of the recreational activities needed by society.

In the period before the establishment of the factory, many sports branches, which were not heard by the Sivas citizens and whose names were not known, started to be performed. The establishment of the factory also contributed to the training of athletes who achieved success throughout the country and played an important role in spreading the sport to the base of society.

Educational Policies

The modernization process of the Republic was entered in a progressive, productive and creative manner. The construction of this process was carried out by producing and making technical improvements. Undoubtedly, the challenges encountered in this process are individual cases. According to dialectics, while problems vary and change, solutions must be developed. The evolutionary speed of thought and technology after World War II has accelerated with a noticeable increase. These improvements have affected the social, economic and cultural fields all over the world. Therefore, each challenge has been overcome by re-interpreting and constructing existing knowledge. The executives of the progressive struggle of the

new republic thought that the only thing that did not change is the change itself. Cemal Üner wrote in the railway magazine published on April 1954, stated that it was very clear that the culture taken at school or in the family quarry would not conform to the structure of future years, that is, it was not possible to satisfy people throughout life. He stated that in order to overcome these problems, education processes in the developed countries are the most important. This is a clear indication of the importance given to training activities in the railway structure, which is one of the country's most progressive breakthroughs.

According to the expressions in the journal, in 1954, a lot of cultural and technical education structured in the Sivas Railway Repair Shop. These are as follows:

Department of Photography

Photo Service is the first organization among the training activities of the railway repair shop. It was carried out with old technical equipment, without having the latest photography technology. The factory was established to document important events and create a technical archive. The department, which also serves as an introduction for the factory, has produced works to be exhibited in more public places such as Ankara Railway Station.

Department of Cinematography

In addition to the professional conferences held on every Friday of the week, the Film Service also provided documentary content and regularly featured films. According to the data obtained from the archives of the railway magazine, in 1953, the film department of the railway repair shop filmed a 16mm documentary on the 30th anniversary of the Republic. The documentary has been screened in the Railway Repair Shop, cement factory, schools, and city cinemas. These events allowed Sivas citizens to see Sivas on the screen for the first time. Therefore, these impressions are

essential for the cultural life of the city. In the following periods, various films showing the in-house production of wagon manufacturing were also made.

Bulletin

Railway news bulletin includes technical, administrative, educational and sports news, new laws, and regulations. This unit, which was established to inform the personnel, was published in 2-3 pages per month and distributed free of charge to the personnel. Apart from the local press, the bulletin also has a different function in that it includes news about production in the factory and industrial operations in general.

Training activities

Some of the courses offered at Sivas railway repair shop are as following;

Since 1953, two hours a week English and German courses have been given in language courses. Moreover, activities for illiterate personnel were conducted through literacy courses. Workers were able to attend these courses after hours.

The technical courses helped to increase the technical knowledge of the personnel and to create a more equipped production line. Many technical courses such as Turnery, Milling, Planing, foundry, etc. have been given. In addition to all these activities, professional conferences were given by factory personnel in their fields of expertise. These conferences were held every week on Friday, in which also citizens were allowed to participate.

All these education efforts show that the factory area is not only an industrial production place but also a place that staff and urbanite can produce value together. As Üner (1954) points out, one of the most important goals of the General Directorate of Railways is to increase the cultural level of the society. Development and progress are not only sustained by privileges granted to a certain segment, but

also adopted by all the society. Sivas repair factory is one of the visible examples of the importance that the Republic attaches to reason and science in Anatolia. It has acted as a school which shows the life of the Republic from the production area of the two educational units and social facilities.

Demirspor

Fuat Pura (1952) wrote in his article in the journal of Railway that the Demirspor was founded in 1940. In the same article, it was stated that the main purpose of Demirspor was to meet the physical, moral and social needs of the workers. Demirspor, which is the most effective social structure of the factory, has been structured in Sivas in many sports such as wrestling, skiing, football, tennis, volleyball, shooting, wrestling, athletics and cycling. Successful athletes in their fields were employed in the factory's staff. In this way, athletes were allowed to prepare Turkey Championship. At the same time, by this way progressive steps have been taken in the history of Sivas. The club has won regional and national titles in most branches.

In Demirspor, athletics, skiing and wrestling were the most successful branches. The sports club has won several regional titles in the field of Athletics. Standing out with national achievements in wrestling and skiing, it maintained its first position for a long time. In fact, athletes were sent to Turkish national teams from these groups. At that time, most of the athletes in the National Ski Team were trained in Sivas Demirspor Club.

Triggering Impacts on Political Sphere of the City

The factory, which undertakes an active mission in the reconstruction of the social order, has indirect effects on socio-political developments (Mahiroğulları, 2008). The employment provided by the intensive industrial production made the factory one of the focal points of political activity in Sivas. On 10 June 1946, with the

establishment of a real opposition party and its appeal to the Turkish working class, together with international pressure from the International Labor Organization and the UN, class-based organizations were lifted. (Mello, 2007).

In February 1947, by amendment of law 5018, the Worker and Employer Unions and Union Associations Law officially permitting union formation (Çelik, 2010). Because of the new legislation, the first labor union was established in the field of the railway as 'Sivas Railway Workers Union' in 1949 (Adaman & Buğra & İnsel, 2009). According to the report of the Railway Workers Union (1965), this union also played a leading role for the trade unions operating in the other five business lines. Such that In 1963, the distribution of the members in these unions, which had a total of 5,000 organized workers, was as follows: 400 members in the cement plant, 200 members in the sewing workshop, 400 members in the highways union, 500 members in the divriği mines, and 3500 members in the Sivas railway repair shop and railway undertaking.

As Mahiroğulları (2008) points out, the factory was a consolidated source in which political parties and industrial unions were first organized and found a disposed base. By their popularization, the unions, political parties, and civil formation of various political movements and organizations have reached an audience in the Railway Repair Shop (Şener, 2014). According to data acquired as a result of the verbal interview conducted by İbrahim Temizyürek (2019), director of the press office of the TÜDEMSAŞ, various meetings of the established legal societies were held in social gathering areas and manufacturing places within the campus. These meetings on controversial workers' rights and working conditions were organized as a forum event with the intensive participation of union members as well as other workers which was not a member of any union (Temizyürek, 2019). He also added that the decisions taken at these meetings pushed the management wing to take action, thanks to its strong solidarity behind it.

Thousands of unionized workers have had great potential to create pressure in the social and political sphere. Despite their political power, workers joined labor-value-

based political movements rather than starting a workers' movement. They formed the base of the political formations in Sivas.

Given the recent history of the country, the Factory site and the railway campus are one of the symbolic areas of the political period in the city's collective memory. The venues that host events, such as movie theaters, industrial production areas, meeting halls, have become places where intellectual production goes beyond their functions.

4.4 Assessment of the Sivas Railway District

The concept of space plays an essential role in the theoretical debates of architecture and urbanism. In the discussions on the meaning of space, the idea is dealt with in the physical context as well as the social dimension. Space is simply defined as a limited site. In the discussions about the meaning and value of space, abstract relations with space come to the fore. At that point, the notion of place expands the framework of the debate. As stated by Norberg-Schulz (1980), the place is an integral part of being. However, the concept of place does not refer only to an abstract location. It has concrete things like place, form, shape, texture, and color. Through these tangible things, the environmental character that allows us to perceive the essence of the place appears. According to Norberg-Schulz (2013, p. 292-304), “A place is, therefore, a qualitative, ‘total’ phenomenon, which we cannot reduce to any of its properties, such as spatial relationships, without losing its concrete nature out of sight.”

Heidegger stated that about place and space: places do not exist mathematically comprehended space but reached with space perceived through human experience (Sharr, 2013). The notion of place is differentiated from the similar concepts of space and environment by the depiction of various meanings and sensations associated with that location as well as the physical aspects of a location by individuals or groups (Alkan Bala, 2011). According to Norberg-Schulz (1980), place and life are

deeply connected. Norberg-Schulz (1980) considered the term of place as a living space in which activities and cultural and social functions were carried out.

The ideas of Heidegger and Schulz on the place and spatial practices reveal the inclusiveness of the utilization of space on individual life. From this point of view, it can be concluded that space does carry not only physical dimensions but also enables individual and social existence, the fulfillment of many social, cultural, economic, and political needs and the realization of its activities (Sadri, 2013). Therefore, the place is not just an object; it is an area where essential activities are experienced. In other words, the idea of place; it is a broad concept that embraces practices and memories.

Looking at the relationship between space and society in the early Republican period, that can be comprehended better Railway's meaning in society. In the early Republican era, ideas for the setting of a new life and social system developed through modernization. It can be argued that the practices realized in line with those ideas focus on urbanization and urban space. The pattern of spatial change has been guided through the structures and settlements constructed in modern style in urban environments. According to these considerations, it is thought that urban space and living spaces will be re-established formally and functionally (Asiliskender, 2008).

However, this change has not been reached by an imposing policy. The fact that the society was allowed to reproduce their own life dynamics with new life practices. Hence, policies did not remain as a theory. Moreover, the sustainability of this new form and function is based on the values that society attaches to space. These new spaces in the cities offered many functions that were not previously in the cities. Society has encountered many social, cultural, economic, and political activities in these places. Through these experiences, collective memories were formed. In the formation of a sense of belonging and a love of place, collective memories play a crucial role (Severcan & Barlas, 2007).

Sivas is one of the notable models where spatial and social construction processes experienced in the foundation period of the Republic. The effects of the Railway and

its associated settlements on the city of Sivas emerged as a shaping factor on an urban scale. Furthermore, it served as a role model for the modernization of society about the policies of the Early Republican period. The opening of new roads, the creation of new residential areas and types, the creation of industrial areas, the creation of İstasyon Caddesi, the effects of the Railway on urban space. Also, in the sociological context, the new urban environment has an important place in the modernization of the citizen. The station, Istasyon Caddesi, and Sivas Railway Repair Shop are the areas that reflect the visibility and power of the nation-state and host many socio-cultural activities from educational activities to national holiday celebrations. These areas have become the alternative public centers of the city. The Railway and the urban space shaped by the influence of the Railway have been the interfaces in which the citizens are connected to the contemporary lifestyle. Thus, Railway in Sivas was not only a physical environment but also an area where a new public life was organized.

Railway and its associated investments made Sivas a railway city. It has transformed the city from an ordinary Anatolian city into an industrial city where modern life is created. Through new public and individual spaces, new cultures and collective memories have been built. The connection between society and the Railway is constituted through those collective memories. In other words, the Railway is a valuable place not only physically but also for the people of Sivas.

Therefore, the Railway has a very significant position in the history of the city and carries much meaning for the future of the city. The area is at a critical point for spatial and social transformations that the city will live in the short and long term. Given the high-speed railroad and Kızılırmak projects that have been on the city agenda for a while, the future of the Railway also brings a new debate. At that point, the role of Railway in the future of the city and what will happen to these areas come to the fore. Accordingly, for Sivas Railway settlements, and in the future of the city, the probabilities that arise about the function of this area should be examined coherently. The values and obsolescences of the Railway need to be identified; in addition, it is essential to specify the threats and potential of the Railway for these

areas. The boundaries of possible future scenarios for Railway and Sivas can only be settled through these data.

4.4.1 Threats

Sivas Railway was founded as one of the most prominent investments of transportation and industrial policies of the early Republican period. The Railway is Sivas's most important industrial heritage site because of its role in the history of the city. The area differs from other industrial areas in the city with its physical characteristics. The site has great potentials for re-functioning with its industrial and architectural structures as well as vacant and spatial opportunities. The Railway District is located at the heart of the city is where southern and western transportation axes meet, so that makes it valuable site land for possible investments.

For a while now, the debate on the closure of TÜDEMSAŞ, which is the leading industry in ensuring the economic mobility of the city continues. According to the executive order published in the Official Gazette on 27 October 2019, a legal regulation was introduced in order to unite TÜLOMSAŞ, TÜVASAŞ, and TÜDEMSAŞ under a single organization of railway industry and to have a new institutional structure.

According to the statements of the authorities of TÜDEMSAŞ, there is also an initiative under the organization scheme to make TÜLOMSAŞ, the railway factory in Eskişehir, the center of the railway industry. According to the authorities, the production of various technical materials under the responsibility of TÜDEMSAŞ in the new organization chart will be carried out with factories in other cities. Thus, the industrial production scope of TÜDEMSAŞ will be reduced. According to the authorities, this will cause the factory to lose its functions entirely over time. In other words, the closure of the factory was brought to the agenda due to a process that

could be defined as functional obsolescence through the published regulation ("*Sivas'ta TÜDEMSAŞ Tartışması Büyüyor*," 2019).

Another topic that will ultimately affect the functional and spatial situation of Sivas Railway is the high-speed rail line project expected to reach Sivas in 2020. According to the information obtained from the interview with the Real Estate Service Department of TCDD Directorate of the 4th Region, a new station building will be erected for the high-speed train line alongside the existing Station.

In this context, the railway area is also likely to undergo a transformation process. Sivas Railways should be listed as an industrial heritage site and protected from being destroyed as a result of possible urban redevelopment projects. Considering the demolition processes to which industrial heritage sites are exposed, it is necessary to identify the threats to the railway in order to prevent that from happening for the Sivas Railway.

First threat is that the Railway is not listed as an industrial heritage site yet. The Sivas Regional Directorate of Conservation Council of Cultural and Natural Property listed seventy-five buildings within site up till now (figure, 4.41). However, these reports are inadequate and prepared in a very narrow scope such that they include many mistakes and missing points. There is no definition and details about the context of preservation. In the report, it is mainly focused on the structures in the station area and residential units. In the report, not all space of the Railway was considered in integrity. Moreover, almost none of the structures have been registered in the railway factory campus that is now called TÜDEMSAŞ. Through a project to be prepared for the railway area, it is likely to lose the values of the Railway. In other words, that is mean the loss of one of the symbols of the city.

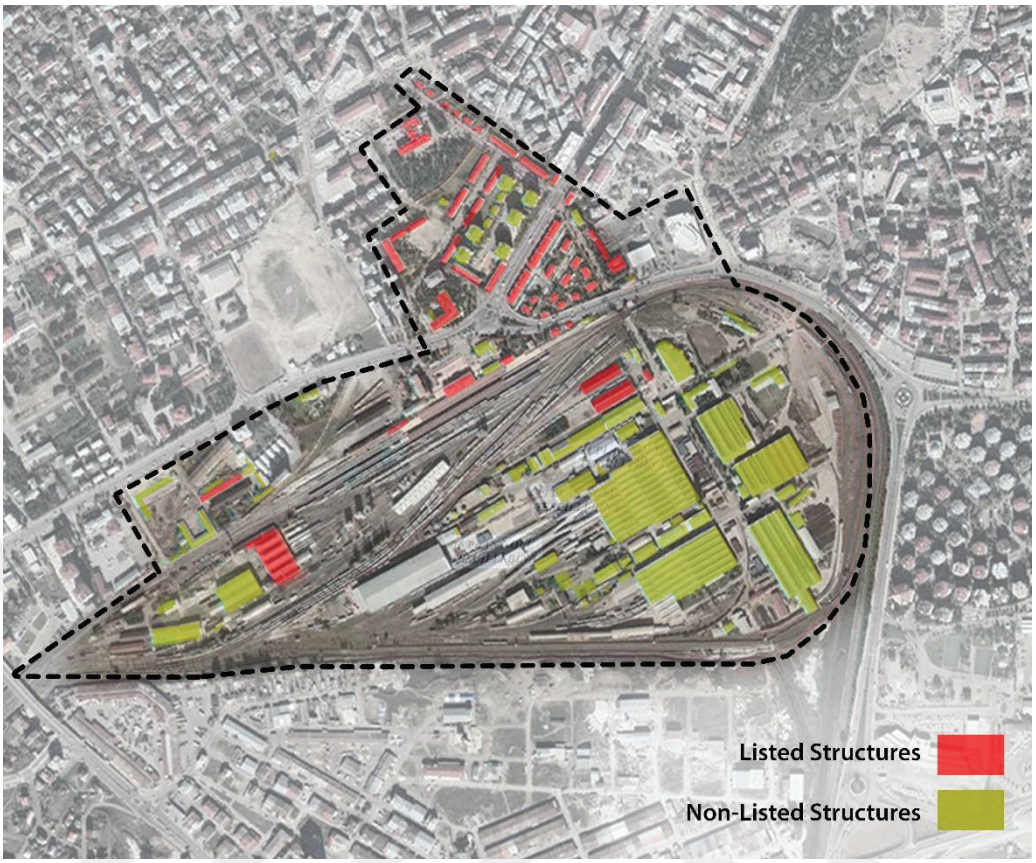


Figure 4.46. Listed structures and building in the Railway

(Source: The Sivas Regional Directorate of Conservation Council of Cultural and Natural Property Archive, 2019)

Secondly, another threat is related to consciousness in the concept of industrial heritage. According to Severcan (2006) awareness of the conservation of industrial heritage has not yet been achieved in Turkey. Severcan (2006, p. 177) explains that as follows:

> "This is partly because, in the Turkish education system, history ends with the start of the Modernization Period. Therefore, modern heritage is a neglected issue in Turkey. Most of the society still sees industrial monuments as a historic and ugly object, and industrial landscapes as urban wastelands or slums left in the core of the cities. They prefer to build more attractive and leisure and consumption-oriented projects instead of conserving these industrial landscapes. Most of the conscious segment of the society, on the

> other hand, still thinks that only beautiful monuments having an age-value deserve to be protected. According to this group, preserving the rest of the heritage is needless and a costly attempt."

Thirdly, ownership of the site might become a threat to the Railway. Today, the landowner of the Sivas Railway is the Turkish State Railway, but there is a possibility that that might change in case of closure of the factory. Generally, in Turkey, valuable spaces in urban centers like the Sivas Railway, due to obsolescence processes are transferred to another government agency like Housing Development Administration of Turkey (TOKİ), or are being privatized. In the Conservation process of industrial heritage sites, the sustainability of the benefits of landowners is one of the most important issues determining the future of these areas, because the decision upon the future of the areas belongs to the landowners (Severcan, 2006).

The fourth threat is the demolition and reconstruction of most of the Railway through the urban renewal process. After 2002 in Turkey, as in all the cities of the country, construction fervor had also revealed in Sivas. New edifices have emerged in many parts of the city until today. The residential areas around the Railway district are very advantageous in terms of its proximity to the old town and access to urban facilities. Therefore, these areas are very valuable in terms of economic rent. Due to the valuable location of the Railway, there have been many rumors about the urban renewal of the site in urban media (Sivas Postası Archive, n.d.). The demolition of the Railway with urban renewal projects and the construction of housing and shopping mall-like structures is a big threat for urban space.

Finally, possible consumption-centered transformation projects that isolate social participation are a threat to the Railway. Severcan and Barlas (2007, p. 677) explain that with the following words:

> "Furthermore, the rational individuals who undertook to conserve these places by converting them focused predominantly on marketing and visitor

management, rather than educative and social values. They conserved in order to attract a specific consumer and tourist group, usually by theming, thus destroying the industrial archaeological values of the heritage sites."

In the transformation processes in which Landowners' sole focus is to maximize profits, the spaces emerge that are driven by today's consumption patterns. Those spaces reflect unusual realities in the urban sphere (Yırtıcı, 2002). As highlighted by Yırtıcı (as cited in Severcan & Barlas, 2007, p. 676), "Spaces now isolate the public individual from his/her social environment by means of mixed-use, visual and auditory effects, and theming." The transformation of the industrial heritage sites in such a context will cause losses for the potentials of the site. The loss of public open spaces in time with the influence of profit-driven practices will cause individuals to lose their individuation and socialization opportunities in the urban space. Thus, the way to make the Sivas Railway an essential venue for public gatherings and rituals as it used to be, that regeneration of the site through the projects that focus on social benefit, not just financial.

4.4.2 Potentials

The increase in constructions at the periphery of the city in recent years has caused a spatially disintegrated-disorganized situation in Sivas. This is not only about space but also about changing social relationships. Due to spatial issues in the city, publicness in urban space has begun to disappear gradually. This situation creates the possibility of social integrity to disappear over time. The relationship between the Railway district and the Kızılırmak River area where the new settlements are concentrated have opportunities to solve those problems.

The spatial relationship between the Sivas Railway district and the Kızılırmak project is very important in the upper scale. Railway district, from the early

Republican period until the 1980s, was one of the socializing places of the city. The railway areas have hosted many social rituals such as ceremonies, collective activities as a center of attraction. Through those acts, inter-individual interaction has increased, thereby strengthening social ties in that place. The activities continued with the participation of the whole community, making the Railway district a symbolic place for the social history of the city. However, there is nowhere else to maintain the role of the public environment previously carried out by the Railway. It is possible to establish a spatial relationship between the city center and the new development areas of the city by the Railway gaining these functions again.

Sivas Railway stands out as a very significant railway heritage site with its location and the vast area occupied in the city, building stock, its place in urban culture and memory, and its place in the history of modernization of the country. Therefore Sivas Railway has a great potential in order to solve the problems mentioned above. The potentials of the Railway should be evaluated with the policies that take into consideration the social benefit, in order to integrate the historical city center with the new settlement areas of the city and to bring the society together.

As highlighted by Severcan and Barlas (2007), according to various researches, the purposes of more than half of people who visit industrial heritage are joining recreational or sight-seeing activities. Severcan and Barlas (2007, p. 678) draw two conclusions from these findings as follows:

> "Firstly, societies seek for public spaces to perform their lost rituals and to escape from the chaotic environment and feeling of nowhereness dominant in today's global cities. The second is that, if used for public benefits, industrial landscapes could be a powerful tool for the constitution of a public realm, and thus for the individuation and socialization of the modern individual."

Railway district is highly valuable for collective memories; in a way, it is a place of memory for people living in the city. Besides, it is a prominent part of the spatial context in which society shares common values. Thus, the railway areas allow individuals to connect with the past. As highlighted by Severcan and Barlas (2007), the connection of individuals with past in their living spaces, and the existence of urban elements that allow that, enable individuals to live more peacefully and be psychologically healthy. The Sivas Railway district and its buildings are characteristically symbolic and monumental. Therefore, it can provide an occasion for society to establish a new bond with the past and regenerate memories. In this way, the Railway can be transformed into a place where public life is recreated as it used to be. In short, the revitalization of the sense of publicness in the Railway could be a means of eliminating social disintegration.

Another advantage of the use of the Railway District as a tool for eliminating spatial and social disintegration in Sivas is that it creates an opportunity to shape the future of the city in both economic and spatial contexts. Through conservation projects developed for the railway area in order to meet the current needs of the city, the urban atmosphere can be revitalized.

In the transformations to be implemented about the needs of the city center, the background that this industrial area has as Railway Heritage should be considered. In this way, not only the city but also the Sivas Railway District can be revitalized. In this process, the existing railway culture can be reconsidered not only with the factors from the past but also with respect to the current and future possibilities; for instance, one of them is the high-speed railroad, which is supposed to reach Sivas soon. Technological progress in high-speed railway systems can have a leading effect on the adaptive reuse of the Sivas Railway District. TÜDEMSAŞ campus in the railway area, which is a prominent place for the country's railway industry, can proceed to production with more advanced technology instead of the heavy

manufacturing industry. While the production areas of the factory are shrinking, it is possible to re-program the other spaces of the railway area to serve diverse purposes.

One of them can be a regeneration process with educational facilities related to railway like research institute for the high-tech railway industry. The fact that the factory is in public ownership provides an advantage for this process. Furthermore, economic sustainability can maintaining through the continuation of industrial manufacturing in the railway area and through the research-development activities. Another potential of the railway area is about the urban ecology. Sivas city center has quite a few green areas. There is a lack of open-air recreative space in the city. According to the researches, the society has a demand in this direction (Oran Development Agency, 2016). The Railway District has considerable potentials to meet the needs of society due to the fact that it has vast land in inner-city. In addition to that, its place in the urban ecological system is also remarkable with closeness to streams and the planned green recreational areas.

Severcan (2006, p. 146) says the following for the re-programming of the industrial heritage sites:

> "During the re-functioning projects, a public benefit should be sought for public purposes. Especially in the absence of public spaces, re-functioning industrial heritages for public uses would be an essential tool to proliferate the lost public life of cities. For this reason, many industrial buildings are re-functioned, sometimes as part of a theme-park concept, as museums or theatres in western countries. However, to sustain the industrial heritage in terms of economic gains, private uses are also considered in Europe, in addition to public uses for public purposes. Therefore, performing a best-use analysis, which evaluates the economic, spatial, social and archaeological assets of the building, and the environmental context of the focused landscape from an urban design perspective, is accepted to be an essential task for the re-functioning process of industrial heritage buildings."

Today, this industrial heritage site, trapped in the heart of the city center, can be utilized to strengthen urban ecology and create a public green space associated with the railroad. It is obvious that the re- programming of the railway for public use will be an accomplishment in terms of urbanism. Additionally, the regeneration of collective memory can be achieved through the conservation project that ensures the permanence of modernism symbols. In other words, through this industrial heritage site, a public place can be achieved for the individualization and socialization of modern individuals.

Another dimension of the adaptive reuse projects to be developed in line with the potentials of the Railway is related to the city's association with the new development zones. With the high-speed railway stations and Kızılırmak River urban projects, the number of residential areas in the south of the city will gradually increase. Nowadays, ghettoization and sub-centers have started to emerge in Sivas. As the railway area becomes an attraction center again, the chaotic environment in the city center with the new sub-centers can be regulated.

4.4.3 Principles for the Conservation and Revitalization of the Sivas Railway District

In order to create a roadmap for conservation and revitalization of the Sivas Railway as Railway Heritage, related data about the historical, physical, and contextual backgrounds of the site are provided up until now. In these contexts, the values, threats, and potentials of the railway heritage site are defined. In light of these, various principles have been designated for the purpose of creating a program for the transformation of the Sivas Railway.

The major conservation aspects for the Conservation of Industrial Heritage Sites, Structures, Areas, and Landscapes, are described by TICCIH Principles as follow:

1. Document and understand industrial heritage structures, sites, areas and landscapes and their values

2. Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes

3. Conserve and maintain the industrial heritage structures, sites, areas and landscapes

4. Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research (The Dublin Principles, 2011, p. 2-3)

The decision of appropriate use for the Sivas Railway is the first step in the conservation process. The conserving the industrial heritage site in their local context, that is to say in situ, the most common way of preserving them. Conserving the industrial heritage in situ allows keeping structures, objects in the context where they are. In this way, the spirit of the past time in which industrial activities are carried out is transferred to the present day. The transformation of the industrial environment over time can be perceived. Besides, the forms of sensate representation with audible and visual elements are provided. Therefore, it is one of the best ways to preserve the character of the site.

The built environment is directly connected to the societies' daily life practices. On the other hand, public spaces are the areas in which social relations are generated that are extremely effective in the constitution of the urban identity and collective memories. Urban identity exists with the permanence of the elements that make up the identity. On the other hand, collective memories are constructed in the social sphere and spread into the future. Industrial heritage sites have an essential place in collective memory because they provide information about the architecture, social

life, historical, and cultural characteristics of the time it was built. As urban space changes, the relationship of individuals with space changes. Therefore, individuals can perceive and adapt the space by preserving the original identity of the space and its expression in collective memories.

Preserving the industrial areas according to the needs of urban spaces and re-programming keeps both the city image and the urban memory alive. If these fields are not preserved in accordance with their contexts and functions, that situation will cause loss of collective memory as well as damage to urban identity. The purpose of the re- programming of the site within the scope of industrial heritage; the priority should be to conserve the unique characteristics of these fields in the urban context. These areas should be functionalized according to the needs of the urban space. The physical, social, and economic balance from the upper scale to the lower scale should be considered in integrity. That is the only way to ensure the sustainability of the conservation of industrial heritage sites.

Society should also be involved in decision-making processes for the future of the field in the scenarios developed to preserve the industrial heritage site; the stakeholders should not be the sole decision-maker. Consequently, sustainability can be ensured, and the values of the industrial heritage site will be carried to the future.

Those are major topics in order to conserve and revitalize the Sivas Railway District:

- The entire fabric of the Sivas Railway District should be conserved with buildings, structures and objects such as machinery and equipment on the site.

- Comprehensive documentation of all industrial heritage elements within site is required. By means of that documentation, which structures should be destroyed and which preserved can be identified.

- Machinery and equipment related to railway and railway industry should be designated.

- General spatial configuration of the open areas in the Railway campuses and the structures within the site should be examined in spatial, social, and economic contexts. The feasibility analyzes can be achieved through that assessment in order to propose new utilizations for the Railway.

- Sivas Railway Settlements as a whole has to be registered as "Railway Heritage Site," according to law no: 2863.

- Taking into consideration of Railroad transportation system and Railway industry in the industrial heritage context, conservation plan and project must design as *in situ*. The Railway's position within the cityscape is as important as the building and the inner spatial organization of the site. The spatial relationship of the area with the city should be regarded in the preparation of a conservation project.

- To avoid damaging the authenticity value of the Sivas Railway, it needed to prevent inappropriate interventions.

- The re-programming process should be developed with the railway's contemporary functions.

- In the possible re- programming process for the Railway, all parts of the system of the operating, the maintenance and repair machinery of the railway industry, equipment of production systems should be preserved and presented as a part of the railway heritage

- The landowner should remain TCDD. In case of transformation, the Sivas Railway should be re- programming in relation to the railway context to achieve an economic balance. The urban renewal projects which focusing on short-term economic profit-making, not provide a sustainable system in the economic context. Furthermore, that will cause the area to lose its value because of destruction. Moreover, for the sustainability of the economic balance in the transformation process, there should not be private initiatives that will only focus on profit maximization. Cumhuriyet University or another educational institution may be involved as a stakeholder in a possible research/education-oriented project.

- The Railway and its nearby areas should be evaluated together. Concerning the spatial association with the historical city center, housing areas, Kızılırmak River, Pünzürük River, the Railway should be examined within the scope of urban design.

- In the conservation scenarios for the Sivas Railway, public uses-oriented concepts that attract all parts of the society should be developed, instead of projects that provide privatized spaces. Incorporating public settings into a privatized consumption system cause damage to the spirit of industrial heritage sites, “their architectural, archaeological, historical and social assets, and our collective memories, and thus, assist in the de-individuation and socialization of the individual” (Severcan & Barlas, 2007, p. 678).

- Although TÜDEMSAŞ has weakened position compared with its' first period, the railway industry organization still has a high production capacity and potentials since its formation. If the factory is to continue production, it should be renewed with an advanced technology

infrastructure investment. With the new technology, production areas can be maintained in less space. Thus, after the damaged structures are renewed, they may be assigned to new functions. The continuation of production activities with educational and research facilities and the opening of the factory area to a public use may create an important opportunity for the protection of the site.

4.5 Adaptive Re-use Proposals for Sivas Railway

Two alternative scenarios have been developed for the future of the Railway in the line with the strategies determined for the adaptive reuse of Railway district by taking into consideration the potentials and values of the Sivas Railway.

4.5.1 High-Tech Research Institute

Until the 1980s, many industries carried out an efficient production activity, but today there is not enough industrial activity in the city. Existing industrial areas and other business-creating investments are closing down over time. Factories such as TÜDEMSAŞ continue to operate well below their production capacities. Therefore, the unemployment rate in the city, which is more than the country average, has started to increase gradually. As a result of this situation, Sivas has become one of the most immigrant provinces (Oran Development Agency, 2016). According to surveys conducted in the city, the most wanted investment by inhabitants in the city has been related to industrialization (Oran Development Agency, 2016).

The high-speed railway line is expected to reach Sivas in 2020. Given this situation, new railway investments have the potential to contribute to the city's industry. In the past, Sivas was one of Anatolia's main railway cities. That is not only because of the

geological position in the railway network but also its contribution to the railway industry. However, due to changing technologies, a production far from today's high technology is maintained.

The factory, where once the country's first locomotive was manufactured, today produces only freight wagons and technical equipment. The closure of the factory is on the agenda because of the fact that the factory is not running with full capacity and loss its functions. Therefore, speculation about the railway areas in Sivas is increasing. Although Sivas has a distant appearance from the past, it has great potential with the infrastructure of being a railway city again. One of the scenarios that can be created for Sivas Railway settlements can be designed to realize this potential.

The high-speed railway project offers an excellent opportunity for the preservation and further development of the city's relationship with railway and railway culture. The city of Sivas stands out as one of the most significant nodes of the historic Silk Road route. Anatolia has become one of the most important trade cities in the world since it is one of the most critical intersections of transportation axes (Akbulut, 2009). Nowadays, the revitalization of the Silk Road to increase the economic interaction between Asia and Europe is frequently mentioned (Lin, 2011). The economic activity in Sivas will increase if Silk Road's revitalization project is implemented. When Turkey's place in the history of Sivas Railway and the city's railway industry history is considered, Sivas has a great potential in terms of economy and industry. In addition to the railway activities that are expected to be revitalized by the arrival of the high-speed train line to Sivas, it is possible to transform Sivas into a railway city with the New Silk Road project.

One of the key topics in this scenario is the railway industry. An important step in this scenario is the revitalization of the railway industry in the city through an industrial investment that can adapt to the current advanced railway technology. The railway industry is a complex industry with its various production types, technologies and software infrastructure. With this initiative, it is possible to start the

development process in the city. To illustrate, it is possible to create modernized, advanced and sustainable industrial production systems instead of massive industrial operations. On the other hand, thanks to the industry to be restructured, it is possible to pave the way for further investments in the software and industry areas related to the Railway.

Production activities to be revitalized under the leadership of TÜDEMSAŞ and the University can contribute to the city. With the development of the economic conditions of the city and the emergence of new job opportunities, migration of the city can be prevented. Through the creation of opportunities related to education and employment, Sivas can become a point of attraction within its geography.

At this point, it can be ensured that the Railway district, which stands out as the most important industrial heritage of Sivas, is one of the essential representatives of production and science in the country as before. The intellectual context to be established through the architectural, historical, and memory values of the Railway Factory can turn this field into a unique education and research institute. Moreover, considering the functional and economic value, a balance can be established between the social and economic benefits. The creation of a sustainable economy that can be achieved through scientific production will be a more positive development for the city, rather than the one-time rent that will be provided over the economic value of the factory campus land. Also, the sustainability of urban memory will be ensured through production and social cohesion. The fact that this campus is a vital habitat used by the community is one of the best scenarios for preserving the heritage.

In addition, the Railway has great potential to create a research institute campus, because of spatial configuration of the area and architectural characteristics of the structures. Some of the production areas in the Railway should maintain its function after they are upgraded to a more advanced technology related with railway industry. The industrial production can be continue in smaller scale in terms of space. Thus, the places, where production is not maintained at full capacity today, might be re-programmed for research and development programs. Moreover, the apprenticeship

building might be the host educational function again after by restoration process. The cinema hall can also be restored and used as an auditorium for the research campus.

The area where the railway houses are located can be reorganized for accommodation services. Thus, the city of Sivas, which consists of a large part of the emigration of its young population, will be the city directed by a young and productive society. Moreover, the layout and open spaces of the Railway are quite suitable for being a research institute campus. Some buildings can be converted into educational and cultural spaces by re-programming while industrial production continues.

The social practices and societal coherence established through the opportunities offered by the ruling ideology of the foundation period are lost values in Sivas today. While the social profile of the city changes rapidly, cultural transformation takes place. Sivas, once an industrial city, will regain its memory by revitalizing the culture of production. In this process, where past experiences will guide, a new memory building will take place.

In essence, the re-programming of Sivas Railway with education and re-programming industrial opportunities stands out as one of the alternative scenarios that can be implemented in the name of social benefit.

4.5.2 Railway Heritage Park

According to the research report prepared by Central Anatolia Development Agency (2016), the second investment most wanted by the residents in the city was the creation of new social spaces, parks, and entertainment spaces. According to other data in the same study, the second reason affecting the migration in the city after the lack of job opportunities is explained as the insufficient social facilities of the city.

They are often exemplified as public spaces, such as urban recreation areas hosting social activities.

This function of the Railway area, which offers social facilities for Sivas, has lost its function over time. In the next period, it is seen that there is no other public space in the city that offers the opportunities created by the Railway. Since its establishment, Sivas Railway has brought dynamism to the city in economic, social, and cultural contexts. The railway's declining importance, and the industrial complex's lack of productivity as before, resulted in weakening in all these contexts. Utilization of the railway area for regenerate urban life is symbolic as well as economically advantageous in a social context.

The railways have great potential to satisfy the spatial and needs of society because of the fact that it has vast land at the heart of the city. Moreover, Railway area has advantageous features in terms of urban ecology, because of the fact that this land is in close spatial relationship with the streams and the planned green recreational areas of the city (figure, 4.49). Today, green space ration in Sivas is quite low. In a project that will be created for the conservation of the Railway district and revitalization of urban publicness, a scenario can be constructed by evaluating this area as a green space firstly. After that, the suitable themes related with railway culture should be determined. Then various functions can be assigned to the structures of the site according to the values of Railway as an industrial heritage area.



Figure 4.47. Map show the green patter of the city in a relation with the Railway and route of high-speed railroad

At the foundation period of the Railway, the west border of the area was defined through Pünzürük River which locates along the north-south axis from the city center to Kızılırmak River. In 2016, with the Kızılırmak Urban Design Competition opened by Sivas Municipality, it was aimed to obtain functional and innovative design solutions in addition to the ecological and qualified environmental approaches to be created along with the current needs and opportunities along the Kızılırmak River coast. That process for the project is continuing. This situation can be made functional for a green area that will build in Sivas city center. While the Kızılırmak project is in close relationship with new development areas, it does not yet have a spatial relationship with the city center. The Railway District can set the bond between Kızılırmak River and the city through the creation of integration between green areas. Thus, there is an opportunity to revive the ecological values that have disappeared in the city center over time.

As pointed out by Severcan and Barlas (2007), the re-programming of industrial heritage areas with cultural projects is one of the most effective ways to use these areas for public use. In the project in which the Railway district is functionalized as a green space, emphasizing the railway culture would strengthen the symbolic value of this area. The railway area has many possibilities for adaptive reuse projects that will be created to reveal the railway culture. The site can be configured with a wide range of facilities such as, railway museums, galleries, theaters within open-air park because of the spatial arrangement of the Railway settlements and the architectural features of its structures.

In particular, areas such as movie theaters, production areas within the factory can acquire alternative cultural events. Some of the structures, including the industrial types of equipment in the area, might be kept as it is without any intervention related to re-use policy. According to Nora (2006), as a historical act, any mediation media used to organize past experiences and to re-present them to society's memory can be recognized as a place of memory.

In that context, the conservation of those materials *in situ* is essential to re-present the industrial identity of the Railway. Therefore, this space opens the way for society to re-connect with the place. Moreover, designing this area as a cultural heritage park associated with the railway will have educative, inspiring and entertaining effects for the most of people who are far from the railway culture now. For this purpose, such demolished industrial buildings and structures like energy power plant, could be rebuilt. Moreover, preservation of the technical equipment and machinery within the factory might be useful for educational tour in park. (Figure, 4.48)



Figure 4.48. Technical equipment and machinery of the factory might be useful for educational purposes

(Source: TÜDEMSAŞ Archive, 2019)



Figure 4.49 The first Turkish steam-powered locomotive, Bozkurt.

(Retrieved from the Press Office of the TÜDEMSAŞ)

The station built for the High-speed railway will increase the density of this region. Nearby the station area, commercial units can be added for various needs. That ensures a liveliness around the railway. However, the scale of these commercial units is a critical issue for the foreseen life in the Railway District. As argued by Özdemir and Dinç Kalaycı (2019), multifunctional high-speed stations in Turkey are designed as consumption space like a shopping mall. Hence, these spaces cannot be a place where culture and social relations are rebuilt. In this context, the commercial functions within the Sivas railway area must be directly in line with the city, urban culture, and railway culture.

In the scenarios developed for the railway area, projects prepared concerning the context in which this industrial heritage site is located should not conflict with the economic value of the railway land. The balance between the functionalization of social benefit and the economic benefit will ensure the sustainability of the scenario to be created in this area (UNESCO, 2011). Besides, the design of these settlements in a way to ensure economic benefit will also create progress in the urban economy.

The balance, as mentioned above, should not be based on the commercialization of space but economic gains through production.

The railway area has contributed to the cultural development of individuals for many years, with the library, language courses, various educational opportunities. Today, apart from the small courses offered by various local administrations, there is no additional workshop in the city. Considering the impacts of the Railway on the modernization of society, the inclusion of various workshop events while re-functionalizing this area will enable the revival of a tradition. In this context, residential units within the Railway can be considered as venues that allow such activities. Numerous productions can be performed through workshops. Using these areas for small scale production and commercial activities related to Sivas and railways will provide benefits in the economy.

Upon building a high-speed railway system, the Railway district will be the entrance gateway for those who came to the city as before. In other words, this gate will open directly to an environment that shapes the history of the city and reflects its identity. Increasing the visibility of the distinctive character of the city and the renewal of the Railway will enable the rebuilding of the city's image.

Regeneration of the railway area to meet the recreational green space needs of the city is one of the projects feasible for the railway heritage background of the city. In the case of the Sivas Railway revitalization, the site will be an influential instrument for the constitution of a public sphere and the generation of public and private rituals as before. Furthermore, that scenario will affect the urban environment positively through cultural, educational, and commercial facilities.

CHAPTER 5

CONCLUSION

Railway campuses in Turkey are witnesses of the progressive modernity policies of the Early Republican period. Today, while railway technologies and infrastructure are developing rapidly, dynamics of urbanization are also changing. In today's urbanization and architecture debates, many discussions about the future of railway settlements carrying the characteristics of industrial heritage continue. Sivas Railway has also come forward as an example of this discussion.

Sivas Railway District is one of the most important railway heritage sites in Turkey. Recently, the questions have arisen regarding the Sivas Railway District due to the high-speed railway reaching the city and the uncertainty about the future of TÜDEMSAŞ (Turkey Railway Machines Industry Inc.).

In this thesis, it is aimed to provide a conceptual framework for the conservation of the Sivas Railway and for the studies that will proceed to regenerate the spatial and social environment of the city. In this context, studies were carried out to determine the values, threats, and potentials of the railway area in the context of industrial heritage concerning the possible adaptive reuse projects.

Therefore, in order to comprehend the urban context in which this railway heritage site is located, the historical geography of Sivas was investigated. Besides, the effects of the railway in the urbanization of Sivas were studied. Theoretical literature on collective memory and place relations was utilized to understand the role of the Railway District in shaping the social life in the city. Thus, a framework was reached for the spatial and social contexts of the relationship between the railway and Sivas.

In light of the data obtained, it is aimed to create a guideline for the future of the Railway District and it’s role in the future of the city. At this point, academic literature on the conservation of industrial heritage was referred to. The railway

heritage of the city needs to be conserved by re-programming, in order to regenerate the existing spatial and social environment in the city. Some principles are determined for the conservation projects of the site, taking into consideration the potentials of the railway area for adaptive reuse, threats about the area, and the urban context where it is located. The main concerns in the formulation of these principles are strengthening the relationship between the railway and the city of Sivas, preserving the values of the area, and maintaining urban memory.

In line with these principles, two alternative scenarios are developed to revitalize the Railway District and its relationship with Sivas. Sivas railway area is aimed to regain its significance for the city with adaptive reuse. In the first alternative program, ideas about the re-programming of the railway area is formed by taking into consideration one of the most important economic issues on the city's agenda. The first scenario is based on the development of an advanced industry in the city, in parallel with the expectations of the citizens. In the scenario, the railway area is re-programmed with a re-use close to the original function as a research-development institute that will also be education oriented. In addition, production activities will be maintained by upgrading with the high-tech railway industry.

The second scenario is developed as a response to how to evaluate the railway area in case of the closure of the TÜDEMSAŞ due to functional obsolescence. The program developed for the railway area is about creating a recreational green park as ‘industrial heritage park’. In this way, it is also aimed to strengthen urban ecology. According to the scenario, the railway area should be re-programmed with cultural facilities based on railway heritage. The commemorative value of the site will be strengthened by adaptive re-use to maintain the urban memory.

In conclusion, the social and spatial transformations that took place in Sivas after the establishment of the Sivas Railway are directly related with the modernization policies of the Turkish Republic. The railway has led to a modern urbanization practice in the historical city center of Sivas. The city has extended beyond its old boundaries and developed under the influence of the railway. On the other hand, the

spaces of the modern Republic were the stages in which the inhabitants experienced new life practices. In other words, it constitutes the spatial context that enables the individuals to experience the processes of individuation and socialization.

Today, the urban context of Sivas is quite different from the last century. In other words, the transformation caused by the high-speed railway will manifest itself differently from the urbanization of the last century leading by the railway area in the city. During that process, the revitalization of the Railway District with adaptive re-use projects will have a regenerative effect on the city of Sivas. The railway does not only represent a place or function for Sivas, but it represents the enlightenment. Therefore, revitalization of this field, with all its values, will surely create a regenerative influence for the city of Sivas. The railway represents production in each part of life for Sivas. The city that has been in the darkness for centuries has entered into a new age through the developmental investments of the Republic and has become one of the most prominent industrial cities of the country. As the railway was pushed to the background as a result of political policies, the city also began to decay in all fields.

As highlighted by Çağatay Keskinok (2019, p.30):

> "The contradictions and lifestyles created by production and the production processes have an acceptable developer and progressive aspect. Disengagement from production is one of the major reasons for the reactionary process in the cities. While the industrial labor force that breaks out of the city faces the problem of conservatism within itself, the cities, which experience the disengagement from production and organized through consumption, are transformed into the stage for reactionism and reactionary forces. "

The reasons that Keskinok (2019) mentions lie at the basis of the problems Sivas faces today. As the production activities in the city decreased, the population decreased. The immigration of the educated section of the city and the modern opportunities lost have enabled the reaction to find an opportunity to rise over the

years that has turned into a vicious circle. The revitalization of the enlightening effects of the railway for social benefit will break this cycle. The railway will, therefore, be a tool to regenerate Sivas and overcome the recession that the city is currently facing in urban space, economics, and social integration.

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APPENDICES

A. Establishment Period of the Sivas

Mahiroğulları (2003) states that in 2000 BC, the Hittites settled in an area that included Sivas. Sivas was one of the significant settlements of the state until the collapse of the Hittite civilization in 1200 BC. In later periods, it was a part of the Hittite city-states for a long time. Later, after the arrival of the Cimmerians and Scythians to Anatolia after 695 BC, Sivas became the settlement area of these tribes before it was taken over by the Persians in 550 BC (Mahiroğulları, 2003). As stated in the Sivas Provincial Yearbook published by the Sivas Governorship in 2002, the Persians divided Anatolia into three regions while ruling Anatolia; these were Cilicia in the south, Pontus in the north, and Cappadocia in the middle. Sivas is in the central region of Cappadocia. In the Annual Report of Sivas (2002), it was pointed out that in the following years, Persian domination in Anatolia was weakened by the influx of Macedonians, and then Alexander the Great in Macedonia conquered Sivas in 332 BC. Then in 17 BC, the city came under the rule of Tiberius, the Roman King.

According to the data obtained from the travelers' texts (Çelebi, 1982; Cuinet, 1892; Gabriel, 1940), when we look at the activities of the civilizations that govern the region, town planning emerges according to the military, political and social needs of the ages. To meet these needs, local geographical factors such as rivers and topography have been decisive in the selection of the first settlement in the region. Such that, in the early period of the city, it was formed by Kızılırmak River, Mısmılırmak, and Murdar River and Pünzürük River in geographically (Kuban, 1966). Those rivers play a crucial role in the development process of the city.

As indicated by Denizli (1990), the first information about the history of Sivas city was found in Roman and Greek sources. However, according to the data obtained from the excavations initiated in 1927 by the team of American archaeologist Hans

Henning Von Der Osten in Sivas for the first time, it was revealed that the region was first settled in the Neolithic periods.

According to Abarju (1999), the first urbanization activities, which started during the Roman period, is where the Sivas city center is located today. The first fortress called Topraktepe was built on an area of 30 m higher than the average height of the city center. Topraktepe, where the historical stratification began, is very important in the urban system and its transformations. Because it is the starting point of historical layers, it is thought that the city was established in a high plateau area for protection from the floods of Kızılırmak River (Kuban, 1966). The rivers were taken into account by the rivers (Tuztaşı & Koç, 2017). The city has a form formed inside the castle during the Roman period. It is thought that two inner fortresses define the city's macro form. Türkan Kejanlı (2010) defines the fortress cities in Anatolia before the Turkish conquest. According to the data provided by Türkan about the organization of the inner city of Sivas before the Turkish periods, the prominent feature of the castle-cities in Anatolia is that a significant part of these settlements located within the city walls. There is usually an inner fortress with administrative and military functions, and since the zone of occupation is limited, the settlement has an organized trade area. Kejanlı (2010) also explains that many cities in Anatolia were developed from a mound or a Byzantine acropolis with a genuinely ancient nucleus, and these settlements were generally able to express themselves in walled plains, such as the Seljuk city type Sivas and Kayseri.

B. Board Decisions

Decisions on the conservation of Sivas Railway (Sivas Regional Directorate of Conservation Council of Cultural and Natural Property’s Archive, 2019)

T.C.
KÜLTÜR VE TURİZM BAKANLIĞI
Sivas Kültür Ve Tabiat Varlıklarını
Koruma Bölge Kurulu Müdürlüğü

İLAN

Sivas İli, Merkez İlçe, Kadıburhanettin Mahallesi'nde sit alanı dışında bulunan mülkiyeti Sağlık Bakanlığına ait 359 ada 18 parselde yer alan Devlet hastanesi ek binası (eski D.D.Y hastanesi) ve mülkiyeti T.C.D.D. Genel Müdürlüğü'ne ait Gar yerleşkesinde ki ekli listede yer alan binalar Sivas Kültür ve Tabiat Varlıklarını Koruma Bölge Kurulu'nun **05.02.2008** tarih ve **737** sayılı kararı kararı ile "2. Grup Yapı" olarak tescil edilip koruma altına alınmıştır.

İlgililere duyurulur.

Musa TÖRNÜK
Müdür

Adres:Atatürk Kültür Merkezi-58030/ Sivas Tel: 0346 221 88 57 FAX: 0346 221 88 87

2 *

SİVAS DDY YERLEŞKESİNE İLİŞKİN 05.02.2008 TARİHLİ YERİNDE İNCELEME RAPORU

TCDD yerleşkesi 51 pafta 345, 353, 359, 508, 367, 1476 adalarda kayıtlı parseller üzerine yerleşmiş olan yaklaşık 65 dönümlük bir alanı kaplamaktadır. Sivas Demiryolu İstasyonu ile buna ait bina ve lojmanlar, lokomotif ve vagon bakım atölyeleri, TCDDye ait lojmanlar ve sosyal servisler ile sağlık ve eğitim yapılarından oluşmaktadır. İstasyon binaları ve lojmanlar imar planında yapılan bir düzenleme sonucu sonradan oluşturulan İnönü Bulvarı ile birbirinden ayrılmıştır. Sivas Kültür ve Tabiat Varlıklarını Koruma Kurulu 15.11.2006 tarihinde yapılan bir başvuru üzerine Sivas Gar binasını incelemiş ve bu inceleme sonucunda gar binasının büyük bir yerleşkenin bir parçası olduğu anlaşılmış; tarihsel ve mimari değerler açısından bir bütünlük arz eden bu yerleşkenin bütüncül bir yaklaşımla ele alınması gerekliliği konusunda görüş birliğine varılmıştır. Kurulumuz 23.08.2007 tarihli toplantısında yerleşkenin yapıları arasından tescile değer olabilecek 75 adet yapının tescil amacıyla tespitinin yapılması ve tescil fişlerinin hazırlanması üzerine görüş bildirmiştir. Bu aşamada kurul raportörlerinin hazırlamış oldukları 14.01.2008 tarihli rapor doğrultusunda tescillenmesi önerilen yapıların listesinin güncellenmesi gereği ortaya çıkmıştır. Kurul üyeleri 05.02.2008 tarihinde yerinde detaylı bir inceleme yapmış ve kurulumuzun 23.08.2007 tarih ve 574 sayılı kararında yer alan listeye ilişkin olarak aşağıdaki kararları almıştır:

- 508 ada 91 parselde yer alan 231 ve 282 plan numaralı atölye ve ambar müdürlüğü yapıları, 355 ada 1 parselde bulunan PTT binası, 1476 ada 42 parselde bulunan 59 ve 241 plan numaralı lojman binaları, 359 ada 20 parseldeki TCDD 4. Bölge Müdürlüğü binası, yerleşke içinde var olan dokuyu tamamlamaları, mimari açıdan ortak dönem özellikleri göstermeleri, tarihleri açısından Erken Cumhuriyet dönemine ait olmaları gibi nedenlerle tescil edilmelidir.

-508 ada 91 parselde yer alan 1,155, 63 plan numaralı yapılar, 1476 ada 42 parselde yer alan 16 numaralı yapılar artık mevcut olmadıkları için tescile önerilmiş yapılar listesinden çıkarılmalıdır.

-508 ada 91 parselde bulunan 46, 13, 144 numaralı yapılar ile 1476 ada 42 parselde bulunan 150,142, 218, 63, 114 bulunan yapılar ile 1476 ada 26 parselde bulunan 47, 48 numaralı yapılar, 359 ada 20 parselde bulunan 54,55,56 numaralı yapılar yerleşkenin bütünü içinde kayda değer katkıları olmamaları ya da mimari değerleri açısından tescile uygun özellikler taşımamaları nedeni ile tescile önerilmiş yapılar listesinden çıkarılmalıdır.

Sivas TCDD Yerleşkesi'nin Türkiye Cumhuriyeti sanayi hamlesinin boyutlarının ve kapsamının algılanmasında belge niteliğinde olduğu için hem tarihi hem de milli değeri vardır. Yapımı sırasında

Mustafa Kemal Atatürk'ün ziyaret edip görüşlerini belirttiği bilinen yerleşke Cumhuriyetin zorlu ilk dönemlerinde bir sanayi yatırımının, barınma ihtiyacı, sosyal ve sağlık servisler ile eğitim yapılarıyla birlikte ne derece büyük ölçekli ve kapsamlı olarak ele alındığına tanıklık etmektedir. Kentin gelişiminde en önemli etmen olan kuruluş ve yapılarının halkın anılarında önemli bir yer etmiş olması da bu önemi pekiştirmektedir. Bu nedenle bir bütün olarak ele alınması yukarda sözü edilen değerlerin korunması açısından gereklidir.

Sivas TCDD yerleşkesi, içinde bulunan yapıların modern mimarinin Turkiye'deki erken örneklerini sunması açısından önemlidir. Sanayi atılımına ait yapılar modern mimarlığı ve çağdaş yaşamı Anadolu'ya tanıtan yapılar olarak önem kazanmaktadır. 1930-1945 yılları arasına tarihlenen modern mimarlık akımı örnekleri sade, süsten arınmış üslupları ile karakterize edilirler. Prizmatik, basit bloklarla oluşturulan yapı kütleleri işlevlerinin gereğine uygun olarak biçimlenmiştir. Bu sade mimarileri ile uzman olmayan gözler tarafından bir üsluba ve mimari değere sahip değilmiş gibi algılansa da; mimari değerleri, detayları ve strüktürel yapıları ait oldukları dönemin koşulları içinde ele alındığında açığa çıkar. Betonarmenin erken kullanımları ile elde edilen ince taşıyıcılar, hafif kirişler, geniş cephe açıklıkları, konsollar ve desteksiz çıkmalar modern mimarlık örneklerinin strüktürel değerlerini ortaya koyarken, pencere söveleri, sade silmeler, giriş üstü betonarme saçaklar, zarif doğramalar, sade balkon ve merdiven parmaklıkları da detaylardaki özellikleridir. Bu yapıların bir yerleşke içerisinde bütüncül bir şekilde yer almış olması da bu özelliklerin algılanmasını kolaylaştırmakta ve etkilerini pekiştirmektedir. Modern mimarinin bütün özelliklerini barındıran Sivas TCDD yapıları zaman içerisinde bakımsızlık ve kullanım etkileri ile yıpranmış ve bazı örneklerde önemli değişiklikler geçirmiştir. Ancak bu durum bu yapıların mimari ve belge değerlerini azaltmamaktadır. Ekli olarak verilmiş olan tescillenecek yapılar listesinin oluşturulması ve düzenlenmesi sürecinde bu ölçütler gözetilmiştir.

Bu rapor 05.02.2008 tarihinde hazırlanmış olup Kültür ve Tabiat Varlıklarını Koruma Sivas Bölge Müdürlüğü'ne sunulmuştur.

Uzman N. Burhan BİLGET **Av.Yasemin DURGUN**

Yrd. Doç Dr. Suat ÇABUK **Yrd. Doç Dr. Burcu CEYLAN** **Yrd. Doç Dr. Atilla ENGİN**

LİSTE 1:Tescili Kaldırılan Binalar

SIRA NO	BİNANIN			BULUNDUĞU	
	PLAN NO	YAPIM YILI	ADI	ADA	PARSEL
1	155	1956	Lojman	508	91
2	1	1939	Lojman	508	91
3	13	1950	Su deposu	508	91
4	144	1944	Lokal Binası	508	91
5	218	1949	Tarım Şefliği Binası	1476	42
6	142	1944	Sera Binası	1476	42
7	150	1956	Lojman	1476	42
8	63	1944	Lojman	1476	42
9	114	1944	Lojman	1476	42
10	47	1940	Lojman	1476	26
11	48	1940	Lojman	1476	26
12	54	1945	Lojman	359	20
13	55	1945	Lojman	359	20
14	56	1945	Lojman	359	20

Liste 2:Tescil Edilen Binalar

SIRA NO	BİNANIN			BULUNDUĞU	
	PLAN NO	YAPIM YILI	ADI	ADA	PARSEL
1	231		Ambar Müdürlüğü	508	91
2	8	1933	Lojman	508	91
3	9	1933	Lojman	508	91
4	11	1935	Loko. Bakım Atölyesi	508	91
5	282		4. Bölge CTC Merkezi	508	91
6	16	1933	Ambar Binası	508	91
7	19	1934	Gar Binası	508	91
8	20	1933	Dernek Binaları	508	91
9	21	1949	Şube Şefliği Binası	508	91
10	22	1933	Lojman	508	91
11	23	1933	Lojman	508	91
12	24	1933	Lojman	1476	26
13	29	1942	Lojman	1476	26
14	31	1942	Lojman	1476	26
15	32	1942	Lojman	1476	26
16	33	1942	Lojman	1476	26
17	34	1940	Lojman	1476	26
18	35	1942	Lojman	1476	26
19	36	1942	Lojman	1476	26

20	37	1942	Lojman	1476	26
21	38	1940	Lojman	1476	26
22	39	1942	Lojman	1476	26
23	40	1940	Lojman	1476	26
24	41	1942	Lojman	1476	26
25	42	1940	Lojman	1476	26
26	43	1940	Lojman	1476	26
27	44	1940	Lojman	1476	26
28	45	1940	Lojman	1476	26
29	46	1940	Lojman	1476	26
30			PTT Binası	355	1
35	57	1947	Okul	359	20
36	58	1933	Lojman	1476	45
37	60	1936	Tüdemsaş Lokal Binası	1476	42
38	59	1971	Lojman (Ulaşt. Md. Binası)	1476	42
39	241	1971	Lojman	1476	42
40	67	1939	Mağaza Müdürlüğü Binası	367	1
41	81	1939	Mağaza Yemekhanesi	367	1
42	106	1935	Su Deposu	508	91
43	107	1935	Alimantasyon Binası	508	91
44	118	1939	Malzeme Reyon Binası	367	1
45	120	1952	Lojman	359	20
46	121	1952	Lojman	359	20
47	122	1952	Lojman	359	20
48	123	1952	Lojman	359	20
49	124	1952	Lojman	359	20
50	125	1952	Lojman	359	20
51	126	1952	Lojman	359	20
52	222	1960	TCDD 4. Bölge Müd.	359	20
53	127	1952	Lojman	353	23
54	128	1952	Lojman	353	23
55	129	1952	Lojman	1476	45
56	130	1952	Lojman	353	23
57	145	1944	Lojman	508	91
58	146	1955	Lojman	345	1
59	147	1955	Lojman	345	1
60	148	1955	Lojman	345	1
61	149	1935	Atölye Binası	508	91
62	152	1955	Lojman	345	1
63	153	1956	Lojman	344	23
64	154	1956	Lojman	344	23
65	192	1958	Okul	359	20
66	209	1935	Atölye Binası	508	91
67	213	1940	Yemekhane Binası	508	91

68	221	1952	Eğitim Merkezi Binası	359	20
69	231	1933	Elektrik Revizetörlüğü	508	91
70	307	1940	Isı Merkezi Binası	508	91
71	322	1939	Malzeme Reyon Binası	367	1
72	-	1956	D.D.Y. Atölye Camii	1476	45
73	131	-	Eski D.D.Y Hastanesi	359	18

Uzman N.Burhan BİLGET

Avukat Yasemin DURGUN

Yrd. Doç. Dr. Burcu CEYLAN

Yrd. Doç. Dr. Suat ÇABUK

Yrd. Doç. Dr. Atilla ENGİN

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TCDD 4.BÖLGE MÜDÜRLÜĞÜ
SİVAS GAR HAVZASINDA YER ALAN BİNALARA AİT BİLGİLER

SIRA NO	BİNANIN			BULUNDUĞU	
	PLAN NO	YAPIM YILI	ADI	ADA	PARSEL
1	153	1956	Lojman	344	23
2	154	1956	Lojman	344	23
3	146	1955	Lojman	345	1
4	147	1955	Lojman	345	1
5	148	1955	Lojman	345	1
6	152	1955	Lojman	345	1
7	127	1952	Lojman	353	23
8	128	1952	Lojman	353	23
9	130	1952	Lojman	353	23
10	250	1979	Ray 1	359	20
11	285	1979	Ray 2	359	20
12	291	1987	Ray 3	359	20
13	292	1987	Ray 4	359	20
14	293	1987	Ray 5	359	20
15	294	1987	Ray 6	359	20
16	120	1952	Lojman	359	20
17	54	1945	Lojman	359	20
18	55	1945	Lojman	359	20
19	56	1945	Lojman	359	20
20	120	1952	Lojman	359	20
21	121	1952	Lojman	359	20
22	122	1952	Lojman	359	20
23	123	1952	Lojman	359	20
24	124	1952	Lojman	359	20
25	125	1952	Lojman	359	20
26	126	1952	Lojman	359	20
27	221	1952	Eğitim Merkezi Binası	359	20
28	57	1947	Okul	359	20
29	192	1958	Okul	359	20
30	222	1960	Bölge Binası	359	20
31	315	1975	Lojman	359	20
32	67	1939	Mağaza Müdürlüğü Binası	367	1
33	320	1970	Mağaza Garajı	367	1
34	81	1939	Mağaza Yemekhanesi	367	1
35	191	1970	Karpit Deposu	367	1
36	118	1939	Malzeme Reyon Binası	367	1
37	322	1939	Malzeme Reyon Binası	367	1
38	323	1987	Mekanik Sinyal Şefliği	367	1
39	155	1956	Lojman	508	91
40	1	1939	Lojman	508	91
41	8	1933	Lojman	508	91
42	9	1933	Lojman	508	91
43	307	1940	Isı Merkezi Binası	508	91
44	325	1993	Malzeme Deposu	508	91
45	308	1978	Soyunma-Yıkanma Binası	508	91
46	213	1940	Yemekhane Binası	508	91
47	149	1935	Atölye Binası	508	91
48	209	1935	Atölye Binası	508	91
49	287	1985	Yol Makinaları Garajı	508	91

TCDD 4.BÖLGE MÜDÜRLÜĞÜ
SİVAS GAR HAVZASINDA YER ALAN BİNALARA AİT BİLGİLER

SIRA NO	BİNANIN			BULUNDUĞU	
	PLAN NO	YAPIM YILI	ADI	ADA	PARSEL
50	304	1978	Soyunma-Yıkanma Binası	508	91
51	315	1984	Loko Bakım Atölyesi	508	91
52	11	1935	Loko Bakım Atölyesi	508	91
53	283	1969	Revizörlük Binası	508	91
54	13	1950	Su Deposu	508	91
55	151	1965	Akaryakıt İstasyonu	508	91
56	106	1935	Su Deposu	508	91
57	107	1935	Alimantasyon Binası	508	91
58	313	1987	Misafirhane	508	91
59	16	1933	Ambar Binası	508	91
60	231	1933	Elektrik Revizörlüğü	508	91
61	282	1982	CTC Binası	508	91
62	19	1934	Gar Binası	508	91
63	144	1944	Lokal Binası	508	91
64	20	1933	Dernek Binaları	508	91
65	21	1949	Şube Şefliği Binası	508	91
66	22	1933	Lojman	508	91
67	242	1969	Lojman	508	91
68	23	1933	Lojman	508	91
69	24	1933	Lojman	508	91
70	145	1944	Lojman	508	91
71	314	1983	Drezin Garajı	508	91
72	316	1983	İşçi Binası	508	91
73	44	1940	Lojman	1476	26
74	43	1940	Lojman	1476	26
75	42	1940	Lojman	1476	26
76	41	1942	Lojman	1476	26
77	40	1940	Lojman	1476	26
78	29	1942	Lojman	1476	26
79	35	1942	Lojman	1476	26
80	32	1942	Lojman	1476	26
81	39	1942	Lojman	1476	26
82	38	1940	Lojman	1476	26
83	31	1942	Lojman	1476	26
84	37	1942	Lojman	1476	26
85	36	1942	Lojman	1476	26
86	33	1942	Lojman	1476	26
87	45	1940	Lojman	1476	26
88	46	1940	Lojman	1476	26
89	47	1940	Lojman	1476	26
90	48	1940	Lojman	1476	26
91	34	1940	Lojman	1476	26
92	129	1952	Lojman	1476	45
93	58	1933	Lojman	1476	45
94	142	1944	Sera Binası	1476	42
95	114	1944	Lojman	1476	42
96	60	1936	Tüdemsaş Lokal Binası	1476	42
97	63	1944	Lojman	1476	42
98	218	1949	Tarım Şefliği Binası	1476	42

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TCDD 4.BÖLGE MÜDÜRLÜĞÜ
SİVAS GAR HAVZASINDA YER ALAN BİNALARA AİT BİLGİLER

SIRA NO	BİNANIN			BULUNDUĞU	
	PLAN NO	YAPIM YILI	ADI	ADA	PARSEL
99	59	1971	Ulaştırma Bölge Müdürlüğü	1476	42
100	241	1971	Lojman	1476	42
101	150	1956	Lojman	1476	42
102	310	1977	Yemekhane Binası	1476	42

C. Views from the Sivas Railway District

TÜDEMSAŞ Campus



Figure 0.1 TÜDEMSAŞ Campus aerial views



Figure 0.2 TÜDEMSAŞ Campus

(Source: TÜDEMSAŞ Archive, 2019)

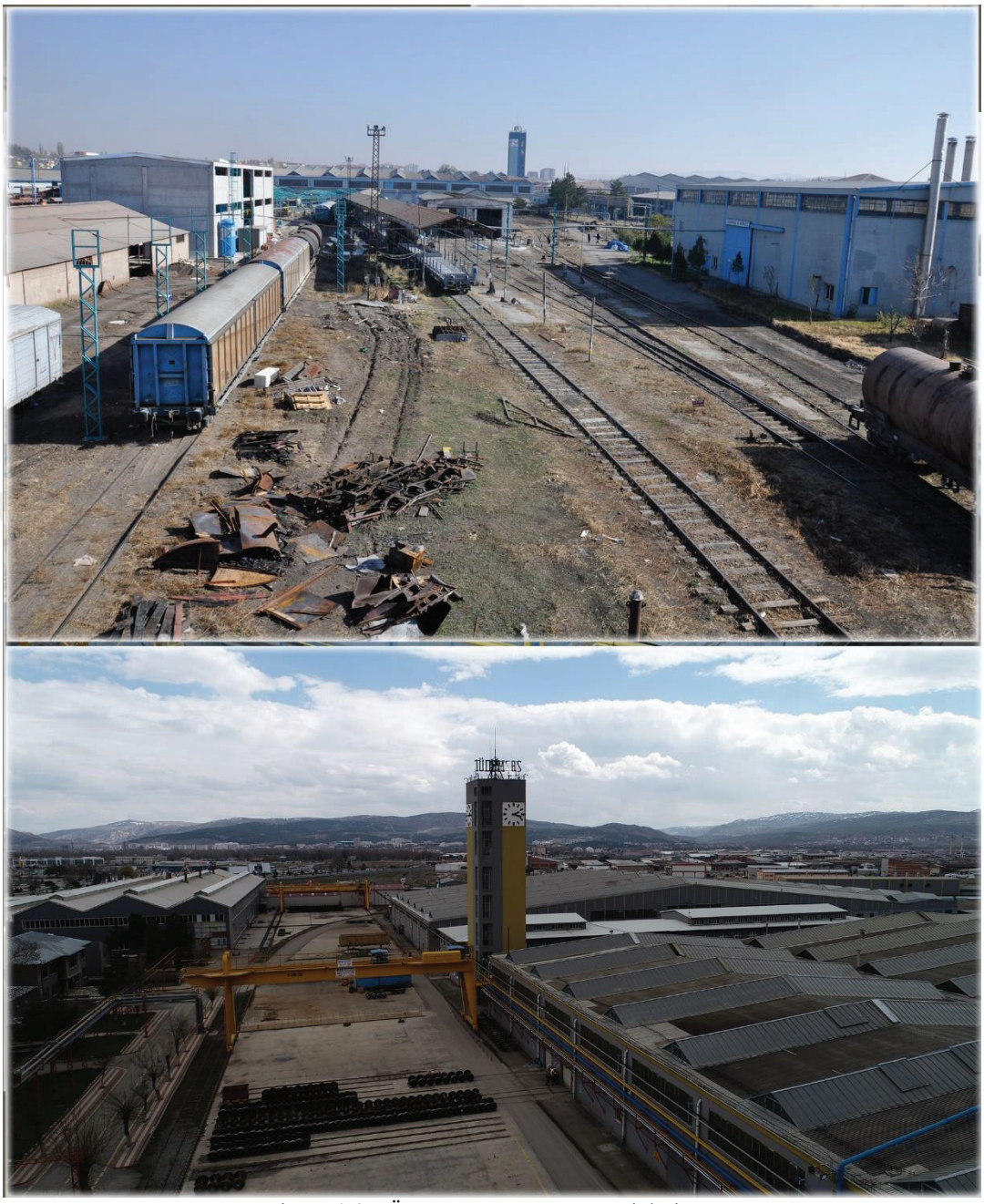


Figure 0.3 TÜDEMSAŞ Campus Aerial views

(Source: TÜDEMSAŞ Archive, 2019)

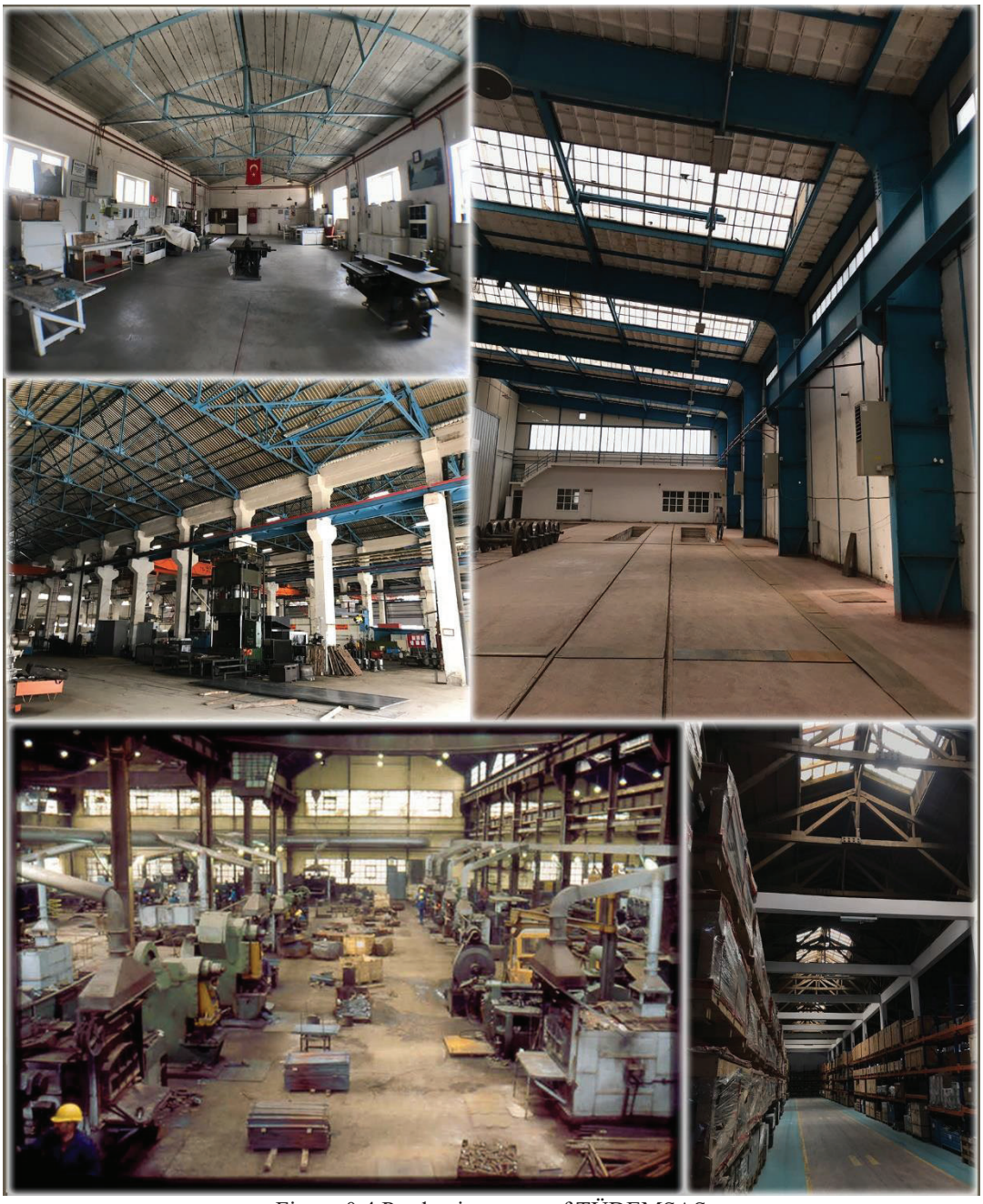


Figure 0.4 Production areas of TÜDEMSAŞ

(Source: TÜDEMSAŞ Archive, 2019)

Station Area



Figure 0.5 Structures from Station Area



Figure 0.6 Views of Water-Station Structure, TMO Building from station area



Figure 0.7 Loco Maintenance and Repair Shop and other structure from Station area.