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**CHANGING URBAN FORMS, SPATIAL
PERCEPTIONS, AND RELATIONS:
A SPACE READING ON SIHHIYE, ANKARA**

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CHANGING URBAN FORMS, SPATIAL PERCEPTIONS, AND RELATIONS:
A SPATIAL URBAN READING OF SIHHIYE, ANKARA

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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.

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ABSTRACT

CHANGING URBAN FORMS, SPATIAL PERCEPTIONS, AND RELATIONS

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People subconsciously communicate with their environment. When interruptions concerning the reflection of citizens, culture, and daily routines on an urban place which can also be called a social product have begun to surface, the establishment of communication between the place and its users can be asserted to have become a failure. Consequently, the place's users do not clearly perceive the urban place; accordingly, the urban place loses its semantic value over time. The aim of the thesis research is reading a place spatially to understand how urban forms change and pose effects on human behaviors. Sihhiye, Ankara, which is both stratified as an urban form and in terms of its sociological structure, and has a historical value in urban memory, was decided to be analyzed as the case area. Both conventional methods;

photographic analysis and map reading which help to analyze and understand historical developments, interventions, and to make sense of spatial peculiarities of a hundred-year period, and a modern method, space syntax, a computer-based approach to analyze today, were employed to spatially read the site; Sıhhiye, Ankara. These methods helped to perceive the site from different perspectives to draw objective conclusions signifying the process through which the space has lost or preserved its semantic value via the process of spatial reading. Through the implementation of these methods, the spatial perception and transformation of the site was analyzed, and urban potential for the city was revealed. The findings drawn from the analyses set forth that Sıhhiye Square and its surrounding environment have lost their historical spatial value, and that although it once served as a gate to Yenışehir where the square had strong communication with people, the thesis shows that the site started to lose its characteristics as a “gate” and evolved to become an ordinary part of the city due to the spatial arrangements made to speed up traffic owing to the effect of increasing population and technology during the years that followed. According to the space syntax results, the area still has the potential to become pedestrian friendly and in terms of transportation, it can be considered not only as a hub, but also as a place where the city and citizens can have a breathing space. Consequently, Sıhhiye Square, which constantly reproduces, can be re-planned in a way that it will both preserve its heritage and respond to citizen’s needs, retaining; and even increasing its easily perceived spatial identity.

Keywords: spatial perception, legibility of place, urban morphology, social space

ÖZET

DEĞİŞEN KENT FORMLARI, MEKANSAL ALGILAR VE İLİŞKİLER:

SIHHİYE ANKARA ÜZERİNE BİR OKUMA

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Bireyler her zaman çevreleri ile iletişim ve etkileşim içerisindedir. Kentlilerin, kültürün ve gündelik rutinlerin sosyal bir ürün olan kente yansımalarına ilişkin kopukluklar ortaya çıkmaya başladığında, kullanıcı ile mekân arasındaki iletişimin kesintiye uğradığı söylenebilir. Bunun sonucunda, bireyler kentsel mekânı net olarak algılamazlar; buna bağlı olarak ise kentsel mekân zaman içinde anlamsal değerini kaybeder. Bu tezin amacı, kentsel formların nasıl değiştiğini ve bu değişikliğin insan davranışları üzerinde nasıl etkileri olduğunu ortaya çıkarmak için Ankara Sıhhiye Meydanı örneği üzerinden bir kentsel, mekânsal okuma yapmaktır. Ankara Sıhhiye Meydanı (Yenişehir Kapısı), gerek mekânsal ve sosyolojik anlamda çok katmanlı bir yapıya sahip olması, gerekse sahip olduğu tarihi değer nedeni ile çalışmada örnek alan olarak seçilmiştir. Mekânın anlamsal değerini yitirdiğine veya koruduğuna

ilişkin nesnel sonuçlara erişebilmek için tezde kullanılan yöntemler, kentsel mekân geriye dönük olarak okumaya olanak sağlayan; harita okuma ve fotoğraflık analiz ile güncel mekânsal kullanımları analiz etmeye yardımcı olan mekân dizim analizi olarak belirlenmiştir. Bu belirlenen yöntemler ile örneklem alanın yaklaşık yüzyıllık bir periyot içerisindeki mekânsal, algısal değişimine dair bir fikir edinmek mümkün olmaktadır. Yenişehir'in giriş kapısı olarak planlanmış olan Sıhhiye Meydanı ve çevresinin bir zamanlar insanlarla güçlü ilişkiler kurmasına karşın tarihsel semantik değerini kaybettiği, "kapı" karakterini yitirdiği, artan trafiği hızlandırmak ve kalabalıklaşan nüfusa çözüm üretmek için yapılan bölgesel yenilikler sonucu kentin sıradan bir parçası haline geldiği gözlemlenmiştir. Mekân dizim analizi sonuçlarına göre, bölge hala yaya dostu olma potansiyeline sahiptir ve ulaşılabilirliği bakımından sadece bir merkez olarak değil, aynı zamanda insanların ferah bir nefes alabileceği kentsel bir mekân olarak da değerlendirilebilir. Sonuç olarak, sürekli yenilenen Sıhhiye Meydanı kimliğini kaybetmeden, mekânsal algılanabilirliği artırılarak hem kültürel mirasını koruyacak hem de kentlilerin ihtiyaçlarına cevap verecek şekilde yeniden tasarlanabilir.

Anahtar Kelimeler: mekânsal algı, okunaklılık, kent morfolojisi, sosyal mekân

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

People live in urban spaces planned to be legible and easily perceivable by users. Space has various properties with regard to scale, population, location, entrances, directions, placement of buildings, cultural elements, transformation routes, open areas and all the components defined during the process of planning. However, an urban place used by society, called a public space, improves; thus, changes under the effect of the administrative decisions and utilization of people. At this point, it can be asserted that the changes are not physical only, but also mental considering citizens. As the mindset of the citizens evolves in time, so may the perception of a place. The perception of a space develops and triggers the concept of social space to become broader. The concept of production is infiltrated by the perception of space, which gradually makes the space a part probably the primary part of its content (Lefebvre, 1991)

People are in incessant communication with space subconsciously. Daily life places are constructed as outcomes of life-long subjective and psychological processes; perceptions and experiences turn into consciousness, personality, and memories, and are shaped by the different identities that people impose on the space (Solak, 2017). This results from the fact that space is an expression tool of people to represent their life via their environment. While the representation process comes into existence, relationships, connections, and disconnections can be established (directly or indirectly) between space and people (Yağcı, 2013). While some interventions on space provide strong interaction, others lead to cut-offs in this communication built

between user and place. When fractions appear concerning the projection process of people, culture, and daily routines on place, it can be said that the establishment of communication between user and place is a failure. Consequently, users do not clearly perceive the place, and accordingly, the place loses its semantic value over time. The places where disconnections exist are easily realized by citizens, and people have difficulty in comprehending and defining the region even if it is a place, they use every single day. Sıhhiye Square, which is a part of the main boulevard of the capital city of Turkey, Ankara is one of the regions where this situation causes confusion.

Spatial reading may be defined as a multivariate method to analyze the surface structure designs of a place focusses on. When this method is applied on a certain place at different times, the comparison made regarding distinct periods submits to distinctive results regarding the surface explanation of the place, which might bear clues regarding why the surface of the place changed during the periods. In other words, the story of the place is reflected when the changes are interpreted; or read. The interpretation of the differences occurring during different time intervals unveil what the place meant to its users during the given periods.

To spatially read the site, an attempt has so far been made to discover how the space is perceived by residents of the city analyzing both recent and its historical developmental processes. The historical significance and the effects of the plan interventions, changes in the site were searched out. Although Sıhhiye Square is one of the key areas for Ankara, it is a place that has scarcely been studied. Working on this region has been an effort to both contribute to the region and to contribute to urban studies due to combining various methods such as photograph reading, map-reading, and space syntax analysis. The study can be considered as a sub-analysis for future studies and plans. The case area boundary was determined as Opera Building and Zafer Square in larger scale, and more specifically, the Sıhhiye Square was focused on.

The fundamental aim of this research is to compare the differences and common aspects of reading the case area through three respective methods; spatial photograph reading, urbanistic map and space syntax analysis methods to discover how the transformations the site has been exposed to has turned the site into an unidentifiable space which has lost its spatial identity. The thesis intends to reach a comprehensive outcome regarding the space cognition of the case area. The thesis also aims to find out whether the three respective methods may reach original conclusions that other(s) may miss.

Various methods in the subject of reading a place which are explained in the literature chapter were applied respectively, and the results obtained from them were discussed. The employment of three respective methods; photographic analysis, map-reading, and space syntax analysis, is an attempt to discover if one or more of the methods could discover facts that other(s) could not. The series of methods were employed to read the form, character, and the current use of a space on a historical axis. The reading method applied in an urban space embeds a high extent of significance regarding historical and current usage value but has changed over time. By combining these methods, the data concerning the space and its usage were collected. This set of data sheds light on the future of the Sıhhiye district, which was planned as the gate of the city. Analyzing the data relating to a hundred-year of period and the present circumstance of the site, prospective potentials of the site are revealed.

The thesis focuses on three concepts: changing forms, spatial perception, and relations. The historical field requires dwelling into the present as well as investigating the past condition of a site. Therefore, the study begins with reading maps and photographs. While reading today, the space syntax is facilitated to understand the current situation, relationships, and connections. The thesis aims to analyze and understand a hundred-year period process of an urban area with high

spatial value and its impacts on society. To achieve the goal, this conventional and modern method was employed on the case.

1.2 The Context of The Thesis

Spatial perception comes into existence through historical, communal, conceptual, cognitive, and biological processes (Doğan, 2009). Therefore, spatial perception is considered to be a multidisciplinary field which involves architecture, urban planning, and sociology. To analyze a multilayered place, employing different methods including both conventional and modern ones has become a requisite.

Researchers from different fields have so far studied understanding, reading, or perceiving urban spaces from different fields. From this perspective, the thesis refers mostly to renowned and agreed upon approaches from Lefebvre, Soja, Lynch and Hillier. To briefly describe the nature of these approaches; Lefebvre follows a sociological perspective; Soja is an urban theorist; and Lynch is renowned for his perceptual studies; and Hillier handles the topic through a computer-based approach. Thanks to these studies, the analysis methods of the thesis were determined and evaluated. Their various ideas have changed the perspectives on the subject which are argued in chapter of theoretical framework: urban space as a place of relationships.

For the thesis, an area which can be defined as an amorphous place was chosen. To understand the space, the thesis focuses on evolution of the public space in time and compares it with its present situation. The study combines people's ideas which are argued in chapter 1, with conventional and modern methods for an objective space perception.

The chosen area is Sıhhiye, Ankara, Turkey located almost in the middle of Ataturk Boulevard (main boulevard of Ankara). Sıhhiye, which has been serving as a transition area between the historical and the newer centers of Ankara, was once planned as the entrance to the city center of Ankara (in 1920s, when Turkey was a young republic). Therefore, time interval of research in the thesis for Sıhhiye was defined as 1924 and 2022, which equals to almost a hundred-year period.

In order to read a space which has been transformed in time, the conventional methods are photo-reading and map-reading and these help professionals to understand the history, historical interventions, values, and soul of the utilized space. On the other hand, a computational method, space syntax, is employed to read its current condition. In Chapter 6, the results of the different methods are compared. As an expected consequence of combining multidisciplinary methods, a place that has lost its legibility will be more clearly readable.

CHAPTER 2

THEORITICAL FRAMEWORK:

URBAN SPACE AS A PLACE OF RELATIONSHIPS

2.1 Space as an Interface of People, Culture, Habits, and Function

Space is a built or an unbuilt environment where people communicate, establish relationships, have shared and experienced memories. Planned spaces are configured, shaped, formatted by architects or urban planners in accordance with their program. However, the planning only becomes meaningful with the people using the space.

Lefebvre separates the space semantically as conceived, perceived and lived; and the relations between them are noticed not to be constant. The living space is a product of social practices. Space exhibits features and substances that have been defined in time (Lefebvre, 1991). From this point of view, it can be said that public space is a social product. Since it is inhabitants who reflect their own way of life on the space, daily practices taking place in the region make social space meaningful and the requirements of the residents determine the function and usage of the place.

While space is a social product produced by the society, urban planners who take spatial decisions on urban space also consider the manner of life of the society occupying the space during their process of contemplation. The city planners to develop and shape urban environment must be equipped with the ability to form groups of structures that will constitute the environment coherently, in a way that conveys the 'sense of belonging together as a whole body or unity' (Günay, 2007). In

order to gain a place, the sense of unity, the common features the society inhabiting there, and their historical and social ties should be determined via social analysis and an appropriate interface should be created accordingly. In like manner, the place may reflect the society living there utilizing it.

When planning the space, not its spatial form, but rather the spatial effect of all components is considered (Zevi, 1959). For this reason, instead of perceiving a place solely in terms of plan, material, or aesthetics, he emphasized the importance of history of the space and the necessity to comprehend what was intended to be done during planning process. The place is a whole with all its functions, properties, and history. In this context, users interact with their environment in line with their needs and expectations, and this interaction can vary depending on cultural, physical, and perceptual variables (Rapoport, 1987). Their effects on people depend on many arguments that create spatial perception.

On the other hand, perception is related with communication. Generally, communication is considered to occur between people; nevertheless, there is a continuous communication between space and people as well. It cannot be asserted that communication is the same in every place; some are more qualified for a strong communication. There are several urban spaces that are open to contact with different functions that allow people to come together. Every place in a city is a communication point. According to Moughtin (2003) the spaces needed in a city are briefly as follows; the settings for a civic building, meeting places, places for ceremonial occasions, spaces for entertainment, shopping streets, arcades and markets, business zone, spaces of semi-public nature around which residential accommodation is arranged and the spaces associated with urban traffic junctions. In this thesis, public spaces such as boulevards, squares and parks were examined due to being covered by the realm of it.

A public space is defined as an open place that is allowed to be utilized by all citizens; some of these public spaces include streets, parks and recreation areas, plazas, and other publicly owned and managed outdoor spaces (Tonnelat, 2008). According to sociological perspective, daily interactions of the citizenry in the space are at least as important as the physical qualities of public spaces. For that reason, accessibility of a public place (both physical and psychological) is a scale factor about its publicity (Joseph, 1998).

The basic feature of a public space is the fact that the members of the public are obliged to fulfill no criteria in order to be able to get access to it. The first public places that would spring to one's mind except from streets, avenues and parks include various mobility areas such as transportation facilities and shopping areas. Moreover, public spaces constitute the places where the images of a city are produced and collective representations, memory and culture emerge (Tonnelat, 2008). Well-designed boulevards have a strong and wide "pedestrian space" separated from the highway by row tree and a combination of design factors, functions and activities that allow pedestrians to internalize it as their space (Jacobs, Rofe, & Macdonald, 1995).

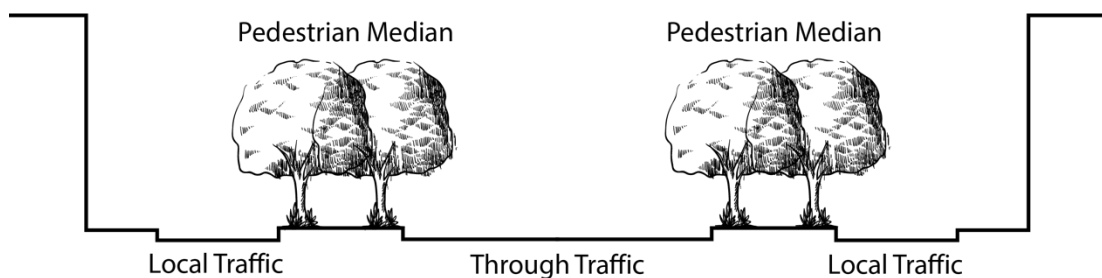


Figure 1. Multiple Roadway Boulevard (Jacobs, Rofe, & Macdonald, 1995)

In this thesis, public spaces such as boulevards, squares and parks are examined due to taking part in study area.

Basically, a boulevard is defined as a wide urban street with tree-lined sidewalks and often multiple lanes of both fast- and slow-moving traffic which are usually pleasant promenades, and supporting a variety of street uses (Velasco, 2002). They are often “monumental links between important destinations.” (Jacobs, Macdonald, & Rofo, 2002)



Figure 2. Monument Avenue in Richmond, US (Whitacre, n.d.)

Squares are located on the boulevards in the city centers in general. Squares which have a unique relationship between the open area and surrounding act as a center point for social and cultural life in the city.

Activity in a square is important for its vitality and for its visual attraction. The physical and psychological function of the square does not depend on size or scale. However, squares create a gathering place for people and provide mutual contact. Also, squares provide users with a shelter against the haphazard traffic and freeing them from the tension of rushing through the web of the streets (Watson, Plattus, & Shibley, 2003).

Public place and society have a strong bond; therefore, it is impossible to consider these two independently of each other. Physical environment has a determinative effect on humans; it directs movement behaviors and social influences because places limit what social acts people are able to do in public (Carmona, Heath, Oc, & Tiesdell, 2003).

Human beings value every space they live in, both on a small and large scale (from home to urban), in line with the meaning they attribute to them. People always attribute a meaning to a space not only due to its form or its visuality but also owing to their own experiences and cognitive processes (Pløger, 2001). A place may exist to the extent that it can be interpreted, perceived, and even described physically.

An image, a smell or a sound that has been encountered is recreated as an image in mind through being associated with a memory; recognition is the reflection of multitude instinctual reactions hidden in the human subconsciousness. Therefore, while people experience spaces through perceptions, there is a kind of exchange between the space and the person. While the place projects its own aura on the person, in exchange, the person who is experiencing it reflects his own feelings and perceptions onto the space (Pallasmaa, 2005). Users act physically and physiologically according to the shape of space, and the space recreates itself in relation to the reactions of the users. In this sense, when users interact with

environment, the interaction can diversify depending on cultural, physical and perceptions (Rapoport, 1987). Peculiar user behaviors create peculiar space notions (Harvey, 2009).

Places are identified by people (Gierny, 2000); the meaning of space emerges as a product of urban sociality and gives identity to the place (Soja, 2011). Soja mentions that space is in a social reality and that social reality does not have a coincidental spatiality (Aitken & Soja, 1998). In other words, he argues that space is both a tool and a result of social life.

2.2 Approaches to Spatial Reading

Perception is a process that occurs through both sensible and mental reading of environmental information (Özen, 2006). While the people's background involving elements such as knowledge, needs, culture, lifestyle, and experiences play a crucial role in the process of perception, architectural-designing and planning quality also constitute a strong parameter which affects the way a place is perceived (İnceoğlu, 2010) because, almost eighty percent of environmental impressions are created through seeing (Berger & Richon, 1989). An image of an event or place is obtained through visual sense. Visual perception is affected by many factors such as color, texture, and form in the space as well as cognitive processes. Senses and cognitive processes form a whole, not only through superficial images; but also, through the simultaneity of all bodily senses do they constitute the essence of spatial consciousness (Merleau-Ponty, 2004).

Spatial perception has a significant role in the evaluation of space. Because the behavior of people is shaped by the spatial perception they have acquired, and it is this perception that shapes the space and controls and affects people's behavior in a

place. The perception is related with experience, memory of a place. For this reason, Merleau-Ponty clarifies that “our irreducible relation to the world by showing that bodily motility, the spatiality of one’s body, and habit acquisition inform our spatial experiences, as well as the syntheses of our perceptions and the unity of the world “ (Viljoen, 2010). These relations are constant in everyday world.

Urban morphology is defined as the study of formation, the transformation of spatial patterns, physical characteristics via interventions and developments of an urban form (Chen, 2014). Morphological process cannot be considered independently from the transformation of spatial perception. The examination of this relation and process has been carried out within the framework of many studies in the scope of various fields such as urban theory, sociology, space perception and visual studies.

To Lefebvre, each and every societal element creates their specific urban forms; in other words, a space is the result of a societal production. Within the process of this production, factors influencing perception come out. He explains that absolute space is not just a representation of space designed on paper. There is a diversification regarding the way a socially created space may be referred to; it can be called a “lived”, “perceived” and “conceived” space and each category may be analyzed within distinct perspectives (Lefebvre, 1991). During the process of self-creation, a space constitutes its own elements of conception, which correspond to physical, cognitive, and societal spaces. A public space cannot exist only with its architectural - structural design or open spaces. Its integration with users is more important than its physical properties. Perceived space refers to the spatial practices (spatial praxis), and they are constantly reproduced, and reflected in the practice of life. Conceived space are the representations of space that architects and planners create by degrading the space to representations and abstractions. Whereas, lived space is organized upon a complicated set of symbols and attributed meanings and memories (Avar, 2009).

About the interaction between human and place, Pallasmaa mentions “I lend my emotions and associations to the space and the space lends me its aura, which entices and emancipates my perceptions and thoughts.” (Pallasmaa, 2009). Rethinking and trying to observe people’s experience in a place are multidimensional analysis to define architectural or urban spaces.

As touched on by Lefebvre as well, Norberg-Schulz is interested in space in terms of the way it is perceived. He analyzes space under 5 categories; pragmatic space, created by physical movement; perceptual space, created through direct influence; existential space, constituting the stable image of people regarding their surroundings; cognitive space, created by physical world; and logical space, where spatial and rational relations are set (Schulz, 1971). He emphasized on the significance of spatial elements on the experiences on human mind, thereby endeavoring to account for the elements ensuring the spatial organization that creates the balance between the dynamic and passive powers of urban space and constitutes spatial perception.

Spatial perception is created by various inputs acquired through historical, social, conceptual, cognitive, and biological processes. Perception does not depend on a single component because it is a multi-faceted phenomenon that cannot be disassembled into smaller segments. There are various approaches relating with the analysis of spatial perception which is created by various inputs such as structural system, image, movement, landscape, usage, accessibility, cognitive effects and qualifying features like color, shape, and smell.

One of the most eminent urban planners who has done research on perceptual form of urban environments is Kevin Lynch. The study carried out by Kevin Lynch can be regarded as the first study in which the definition of legibility was mentioned in the literature (Köseoğlu, 2012). Lynch defined legibility as the ability of an environment

to be organized in a recognizable and coherent pattern. Lynch aimed to reveal which urban elements people used when describing an environment on a horizontal plane. He asked people various questions about "images" of cities such as Jersey City, Boston, and Los Angeles.

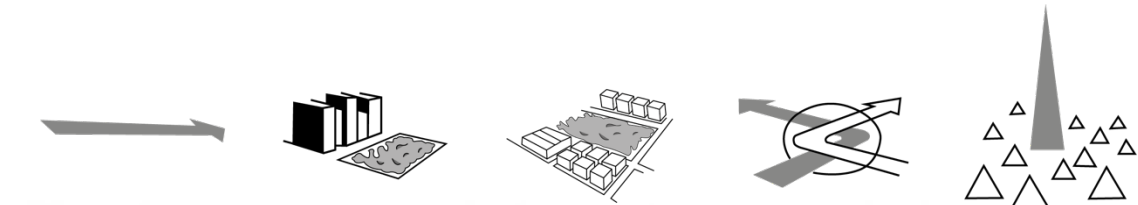


Figure 3. Five Elements of City Imageable City (Lynch,1960)

Lynch argued that a strong imageability could facilitate people's movement in the city. He concluded from his study that people used five main components when constructing a mental image of a city: roads, edges, districts, nodes, and landmarks. They affect the spatial cognition of a place on people's mind. The main components can be defined shortly as;

-Paths have the role of visual dominance. People know places thanks to the help of the networks which are linked by paths.

-Edges define the directions of a place. They help to know about the limits of a space.

-Districts have unseen borders between two dimensions. People are aware of the borders subconsciously.

-Nodes or joint points are the centers of districts. They can be called cores.

-Landmarks are the reference points.

Legibility is an important notion related with reading a place. While Lynch argues that he can analyze the imageability of a place via these components, there are

different approaches as well. According to Herzog and Leverich, legibility seems clear in theory, but it is difficult to measure it empirically. Legibility has two aspects: descriptive and memory-related. A legible space which is a well-structured space with distinguishable components is easy to understand and remember (Herzog & Leverich, 2003). It can be said that as the legibility increases, the perception of the space will be familiar to and easier for everyone. Therefore, legibility affects a place with regard to its internal potential to be spatially read.

Gordon Cullen employed the method of serial-vision so as to comprehend the constructed conception in urban spaces. The method inspires to make sense of an urban environment via kinesthetic experience (Cullen, 1971). Utilizing the evolving perspective belonging to a pedestrian, he drew townscapes. In the drawings, to contrast and depth, he produced consecutive black and white series also regarded as a cinematic technique reflecting the complexity urban life imposed (Engler, 2018).

Jan Gehl argues that even when there are constraints such as location and climate, it is still within prospects to influence the way and the frequency people use space, the activities they take up in this space and the longevity of their utilization of the space; thus, he proposes the observation method through systematic measurement (Westlund, 2018).

Stroecker (1999), in her hypothetical study regarding the developability of urban spaces through visual, spatial, and mathematical judgements, examined specific image and identity elements of urban spaces, thereby evaluating the features of these constituents in terms of the image and major components of the urban spaces within the framework of a mathematical pattern and put forward that the overall image of an urban space could be perceived wholly.

From a different viewpoint, people cannot experience urban space from a fixed point. In order to experience the place, one needs to move through in the system (Hillier, 2003). Hillier put forward an outstanding concept regarding the relationships between space and behavior arguing that the effect of places on people was at the same level as the system between interrelated spaces. In order to make spatial analyses of spaces, people's relations with spaces and their way of using spaces should be taken into consideration. Furthermore, they realized that urban movement networks that attracted pedestrians had a great impact as urban functions on pedestrian movement (Hillier, Penn, Banister, & Xu, 1998). For this reason, the space syntax method has been developed to help spatial reading by analyzing the circulation in place. Like Hillier, Lang (1987) investigated conceptual maps and spatial behavior patterns in his study with regard to physical space and human behavior. He advocated that the concept of conceptual maps constituted a process in which people coded and retained the physical features of a space and moment they were in and retrieved it when they needed to; and that spatial behavior occurred within the boundaries surrounding peoples' conceptual ideas. Lang has proven that people use their head, eyes, and whole body to experience the environment and to sense all the details (Lang, 1987).

Some theory-makers approach towards the sense of space in a phenomenological perspective, thereby advocating the fact that it is impossible to make definitive sense of space owing to the abstract and indefinite nature of this concept (Najafi & Shariff, 2011). One of these theorists, Relph, suggested that we could explain our opinions regarding the concept; nevertheless, we would not be able to define it as spatial perception was a blurry concept (Relph, 1976).

CHAPTER 3

RESEARCH METHODOLOGY

In this section, the methods which were employed within the realm of this study are discussed. How the methods were selected, their suitability for purpose, their limits and the scope are accounted for within this part.

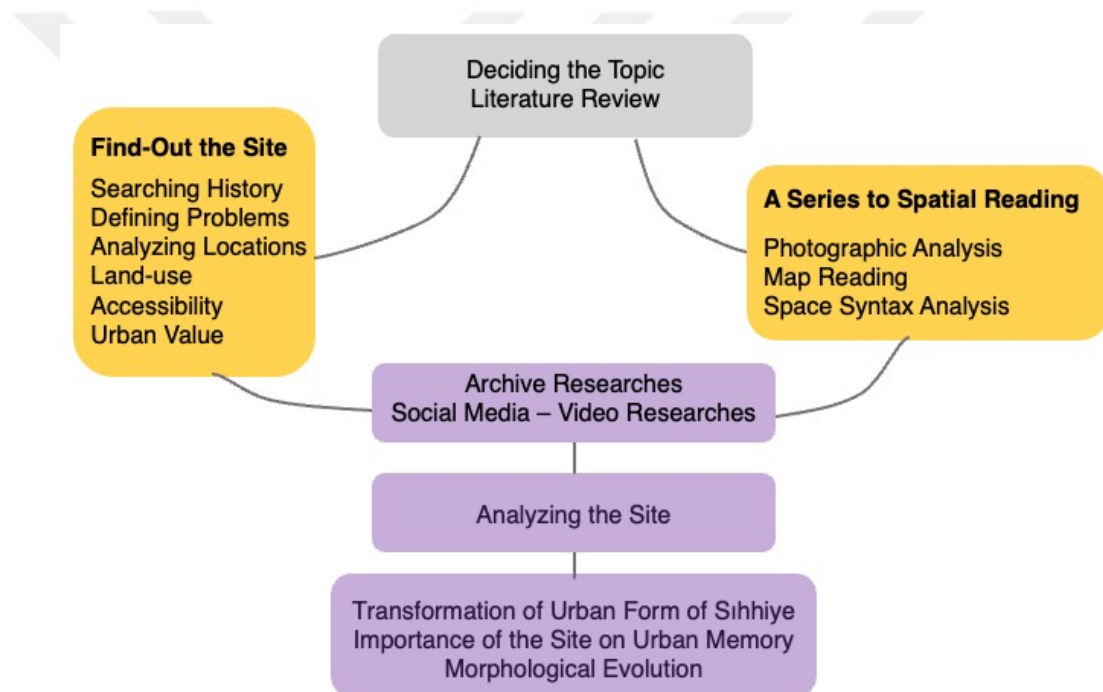


Figure 4. Flow Chart of Research Methodology (The Author)

3.1 Methodological Framework of the Thesis

Space is not just a physical place; it is a whole with its meaning, feeling, plans, mathematical aspect, climate, history, and many other elements. These respective

elements are sometimes meaningful on their own or sometimes within the whole. Moreover, these meanings could be changed depending on the perspective.

Spatial reading is a method of looking at the city, investigating the relationships in the city, making invisible things visible, reading the patterns, and making sense of the space. It is the first step in comprehending the value of that place, making predictions about its future, and taking any action related to it.

According to the implications deduced from theoretical approaches, analyzing an existing situation does not provide sufficient data while reading a place. Taking advantage of the multiplicity of experience requires different perspectives and methods. Thus, the main purpose of this research is to combine both conventional and modern methods to draw as objective conclusions as possible during the process of spatial reading. In other words, reading the same place from different perspectives is the core aim of the present study. The conventional methods made use of in this study are photography and map reading. They help to analyze and understand historical developments, plan interventions, and make sense of spatial peculiarities of the period. This step of the method is vital in terms of why an area has been defined as the case site. Because the area selected has a historical value, it is improbable to read and interpret it owing to the fact that its utilization, intensity and utilizer profile has changed over years. So, handling historical process both in a synchronic and in a diachronic fashion is crucial. Therefore, the modern method is space syntax method, which is a computer-based method; it helps to perceive space more objectively. At the end of the case study, the data obtained will be discussed.

3.2 Spatial Photograph Reading

As we analyze urban space, the contribution made by the four senses that affect our perception was determined as follows: 70% sight, 25% touch and 5% hearing and smelling combined (Szczot, 1972). We can only recognize the place from its photographs if we have not experienced it. Photograph is defined as a picture produced with a camera (Photograph, n.d.). It can be noted that a photograph is a crucial tool for both history and art owing to the fact that it captures the image of the moment through the perspective of the person who took it.

Another reason why spatial photo reading is important is that the photographs embed clues with respect to the profile and sociology of the people utilizing the space. When making a spatial analysis of a city or a building, it is in vain to analyze pure spatial form, since its sociological function has an indivisible integrity (Harvey, 2009). Therefore, it is not only the form that changes analyzed in the thesis; space, reproduction of place and how society lives in these reproduced spaces and how it is affected by transformation are going to be argued.

Each photograph will be evaluated considering the conditions of the period in which it was captured, because there are many factors that affect the use of a place. A Famous mathematician, Hermann Minkowski, stated that “Henceforth space by itself, and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality” to explain the integrity of the space-time relationship (Lorentz, Einstein, Minkowski, Weyl, & Sommerfeld, 1952).

The photographs in the article "Use of Space in Ara Güler Photographs: Istanbul between 1950-1995", written by using the spatial photo reading method, involves the

interpretation of images and the sociological structure of the period. The aim of this study is to examine the concept and perception of space through photography in changing Istanbul (Ürtekin & Özker, 2019). There is an example from the article:



Figure 5. Vefa (Güler, A., 1968)

It is a photo frame where civil and religious architectural structures are seen together, wooden houses with their period-specific masonry structure and basement, and cobblestone. The use of wooden materials in residences is also related to the society's perspective on life. Civil and religious buildings need to be permanent, so structures are made of stone and brick. Significant changes took place in the

historical peninsula and main road system of Istanbul between the years 1955-60. In the photo frame, the disappearance of architectural elements bearing traces of the past with different architectural elements over time and the reflection of social daily life are observed (Ürtekin & Özker, 2019).

Spatial reading of photographs is going to be employed so as to analyze the meanings of images over time, spatial transformations and to discover the identity of the place. For this reason, over two hundred photos of the place were found as a result of long and elaborate research. Since the region is not a place where much research had been done before, visual data were collected by the inclusion of written sources and research regarding its surroundings (especially for Kızılay Square), some videos on the internet (mostly from YouTube) covering the periods scrutinized, personal archives and city archives. By comparing the periods over the written sources, the photographs that are thought to reflect the best images were selected and analyzed. The photos reflecting the synchronic utilization of a space projecting on the periodical spirit and socio-cultural structure of the site were preferred to be chosen.

In the case chapter (see 5.1.), the photographs were arranged chronologically to better understand both the spatial change and the transformation of the meanings of the images. In this way, the photographs of the periods were interpreted not only in their own moment, but also in relation to each other.

3.3 Urbanistic Map - Reading

Sıhhiye was built upon the first master plan of Ankara by Carl Christoph Lörcher. The resolutions made within the framework of the first master construction plan determined definitively how the space was to be construed and organized, thus, it is to be referred to during the process of determining appropriate future action to be taken through a sequence of choices (Davidoff & Reiner, 1962). Within this

framework, the first plan and all interventions have an essential significance in order to read the current use of space, planning and the factors that affect spatial perception of the area.

For Ankara, four different master plans were applied throughout its history since it became the capital city. These plans are:

- Carl Christoph Lörcher (1924-1925)
- Herman Jansen (1932)
- Nihat Yücel - Raşit Uybadin (1955)
- Ankara Planning Office (Nazım İmar Bürosu) (1995).

The maps / or plans used in the thesis study to analyze Sıhhiye region have been gathered from the books and personal archives. The current city plan of Ankara (2020) has been obtained from Ankara Metropolitan Municipality, although these documents all have different resolution and image quality, they are used in the thesis at the same scale to rise their extent of intelligibility and consequently to make a more valid comparison between them.

In the thesis, all the plans (Lörcher, Hansen, Uybadin, Plan of 1995 and the recent plan of 2020) mentioned above were used for analysis. The master plans which focus on Sıhhiye Square, and its surroundings were studied in minor scale in Chapter 5 (see 5.2). In this chapter, the change in the square and the transformation in perception are discussed.

Urban plans and their transformations were analyzed and compared to each other. Interventions on the plans were reviewed considering socio-cultural changes, political events, and historical background as well.

3.4 A Method to Analyze Spatial Configurations: Space Syntax Analysis

Spatial cognition is affected by spatial configuration which could be measured via space syntax. Space syntax analysis method is the set of techniques supported by theoretical approaches that are used for describing and examining interaction through the social structure of describing spatial models of regions, cities, built environments, groups of buildings at different scales (Gündoğdu, 2014).

The space syntax analysis, which was created based on the claim that there is a direct relationship between space organization and social structure, investigates the potential of people to come together, especially in urban open spaces, by overlapping the fields of movement and vision. It helps to understand the social logic that creates the spatial configuration behind the form.

Space syntax is a digital technique that can provide concrete expression and analysis of the abstract characteristics of space. The book “The Social Logic of Space”, which describes the space syntax techniques, was written in 1984 by Bill Hillier and Julienne Hanson. And then the method has been employed by many researchers, firstly in the USA and England. With the beginning of the 1990s, studies started to be carried out especially in the fields of architecture and urban design in Turkey.

Important architects and urban designers such as Norman Foster, Richard Rogers, Terry Farrell and Zaha Hadid have applied the Space Syntax method in some of their projects. The Space Syntax method was used in the master plan studies of Trafalgar Square, Princes Circus, Parliament Square and King's Cross Square, which are visited by a great number of tourists every year in London; and the spaces surrounding them that could be utilized more efficiently were obtained by rearranging the pedestrian platforms.

The public space between Trafalgar Square and Parliament Square in central London was an unpleasant, unsafe, and traffic-dominated public space despite its historical significance. Norman Foster and his team applied the space syntax method to redesign the square. According to the result of spatial accessibility analysis, Trafalgar Square was not spatially integrated into its surroundings. According to observational studies, Londoners avoided the center of Trafalgar Square and tourists failed to make the journey between Trafalgar Square and Parliament Square (Urban Applications, n.d.).

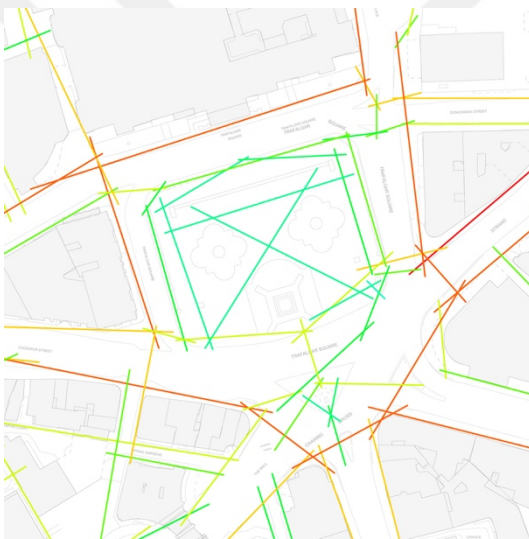


Figure 6. Accessibility Analysis

Before the Central Staircase

(Stonor, 1996-1998)

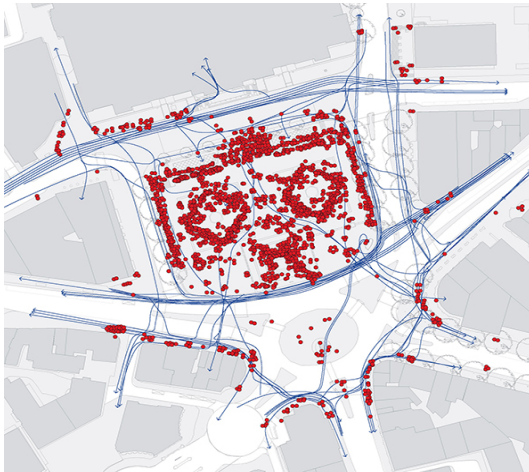


Figure 7. Accessibility Analysis

Proposed

(Stonor, 1996-1998)

Then, design recommendations opting for the selective pedestrianization of the public realm and the re-connection of Parliament Square to the wider area were made. The recommendations were tested via the interpretive model of space and movement.



*Figure 8. Activity in the Square,
from Observation Study*
(Stonor, 1996-1998)



*Figure 9. Photo of New Central
Staircase in Use*
(Stonor, 1996-1998)

The problems were identified with Space Syntax, and the solutions were tested. The results came out successful when the design was applied. Today, the area is visited by tourists and Londoners throughout the day.



*Figure 10. Existing spatial
accessibility pattern of Changchun*
(Parham, 2011)



*Figure 11. Spatial Strategy for
Changchun*
(Parham, 2011)

Another example is urban space strategy of Changchun. HYHW Architects created a new urban space development strategy for Changchun City in the north-east of China. Space Syntax was used for case study analysis, detailed spatial analysis, and creating strategic recommendations for the integrated development of the city.



*Figure 12. Proposed Spatial
Accessibility Pattern of Changchun*

(Parham, 2011)

Space Syntax analysis encouraged the municipality of Changchun to develop a growth plan that was better integrated into both regional and neighborhood scales (Space Syntax Limited, n.d.).

As can be seen from the examples, digitally measuring space configuration is an objective strategy to see current potential of a place. The purpose of using space syntax in this study is to model how the place is perceived and to make an evaluation by comparing the results obtained via other methods. In the future, a new design strategy and improvement studies can be made for the identified situation with the data created in case chapter (Chapter 5.3).

There are many different programs such as Spatialist, Axeman, Syntax 2D, Mindwalk, Confeego, Depthmap, which are facilitated so as to implement the method. In this study, analyses were made regarding Sıhhiye Square using DepthmapX v.28 software. In this study, axial map, connectivity, and integration analysis were made with the help of the software, after the current master plan which was received from Ankara Municipality was arranged.



CHAPTER 4

CASE AREA:

SIHHIYE, ANKARA

Sıhhiye is located almost at the center of Ankara, which is the capital city of Turkey. Ankara became the capital city on 13 October 1923. From this date on, a new city plan was needed. In the new plan, which was planned by Lörcher, the center of the city was determined as Kızılay instead of Ulus. Sıhhiye is located between the old and new city centers of the city.

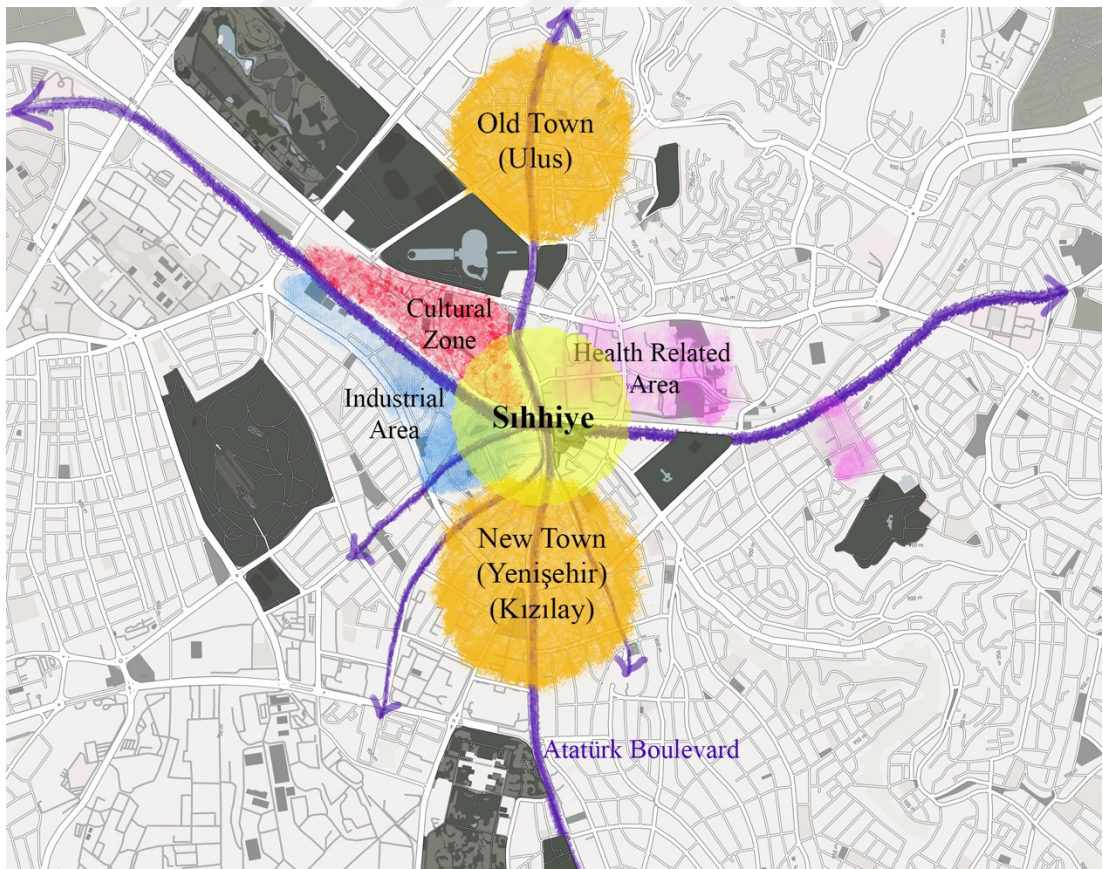


Figure 13. Location of Sıhhiye (The Author)

Sıhhiye, has another unique feature in terms of its location. It is at the midpoint both for south-north and east-west sides of Ankara. It can be called as a node for the city at both micro and macro scales.



Figure 14. Intersection of East-West Axis and South-North Axis of Ankara

(The Author)

Harboring a place to constitute the node is an important element for a city as it is this node which gives the city a strong image through which the whole city can be pictured because it is conceptual anchor point which provides a city recognizability and comprehensiveness by the people (Lynch, 1964). For this reason, it is of utmost cruciality for many residents who live in various regions of the city; for instance, Sıhhiye, the node of Ankara, is host to a great number of trans-passing residents residing in Ankara when they wish to travel within the city as it is at the heart, main

junction of the city and everyone needs to visit it as they transfer from one means of transportation to another. In short, everyone who lives in Ankara, knows Sıhhiye in some way due to its location.

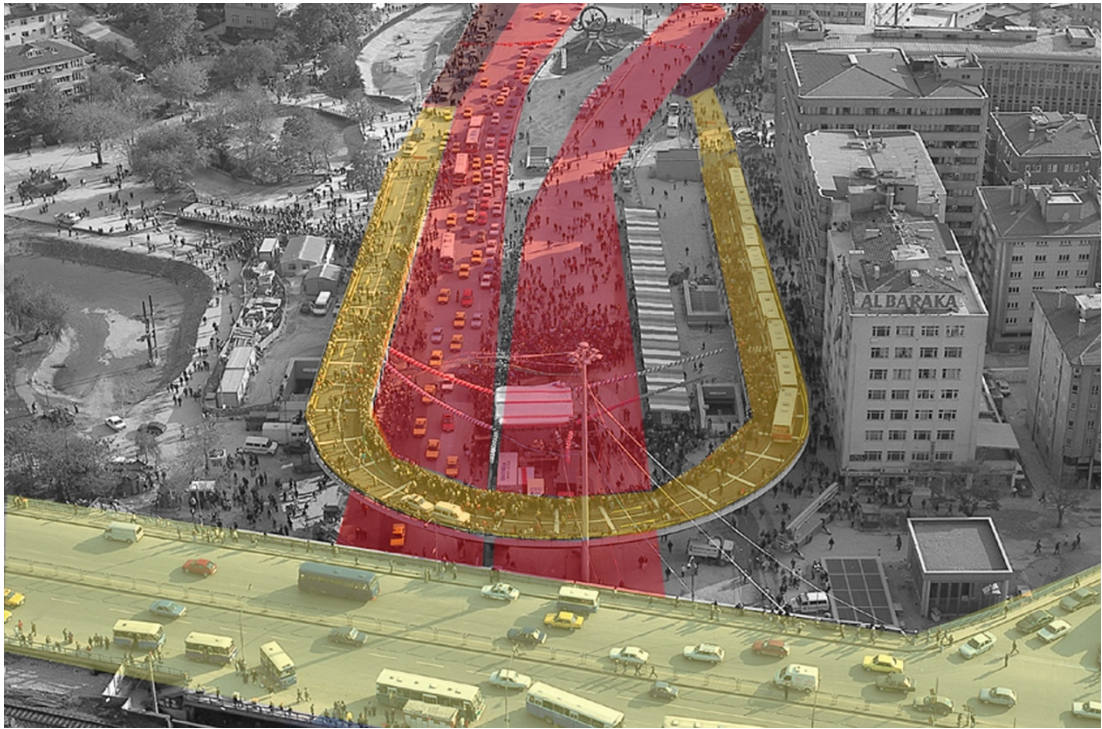


Figure 15. Multi-layered place both physically and intellectually

(Adapted from Topçu, 2021)

The area gets diversified regarding the land use, user profile and utilization with opportunities of the location. There are not only residence, workplace, open space, or public building in the site. People use the place for different purposes as well. It creates a nonroutine movement which can be considered both positive and negative. However, it distinguishes the square from other ones. The emphasized nonroutine movement and historical background are important reasons to define the place as the site to research.

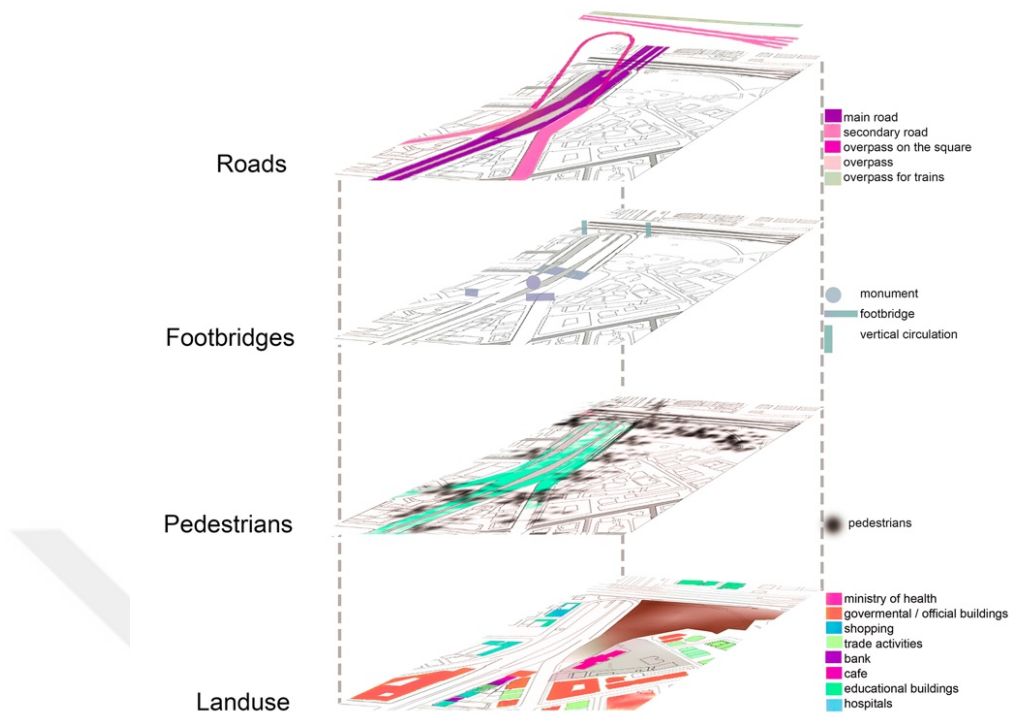


Figure 16. Land-Use Patterns of the Site (The Author)

It is constantly changing, as the territory is actively used and has various functions. It can be said that there is a different urban rhythm of space due to variety of user profile, transportation and built environment.

4.1 Gate to Yenişehir

It has been pre-mentioned the city center has changed after Ankara became the capital. Sıhhiye is an area between centers. The square could be called as a transition area or a minor center between old and new centers.

The first master plan of Ankara was drawn by Lörcher, who created first traces of the area. Lörcher planned that, instead of entering Yenişehir directly, people would enter

through a prologue and a gate spatially. The gate (city entrance notion) is determined to cover the area from Gençlik Park to the Train Bridge of Sıhhiye. While people are getting ready to enter the center from prologue, they find themselves at the entrance of the new center after crossing the bridge. It can be stated that the train bridge has been functioning as a threshold. Sıhhiye Train Station actually constitutes the starting point of the administrative city of Lörcher. He also drew a perspective for this place and made it Station Square (İstasyon Meydanı) (Cengizkan, 2018).

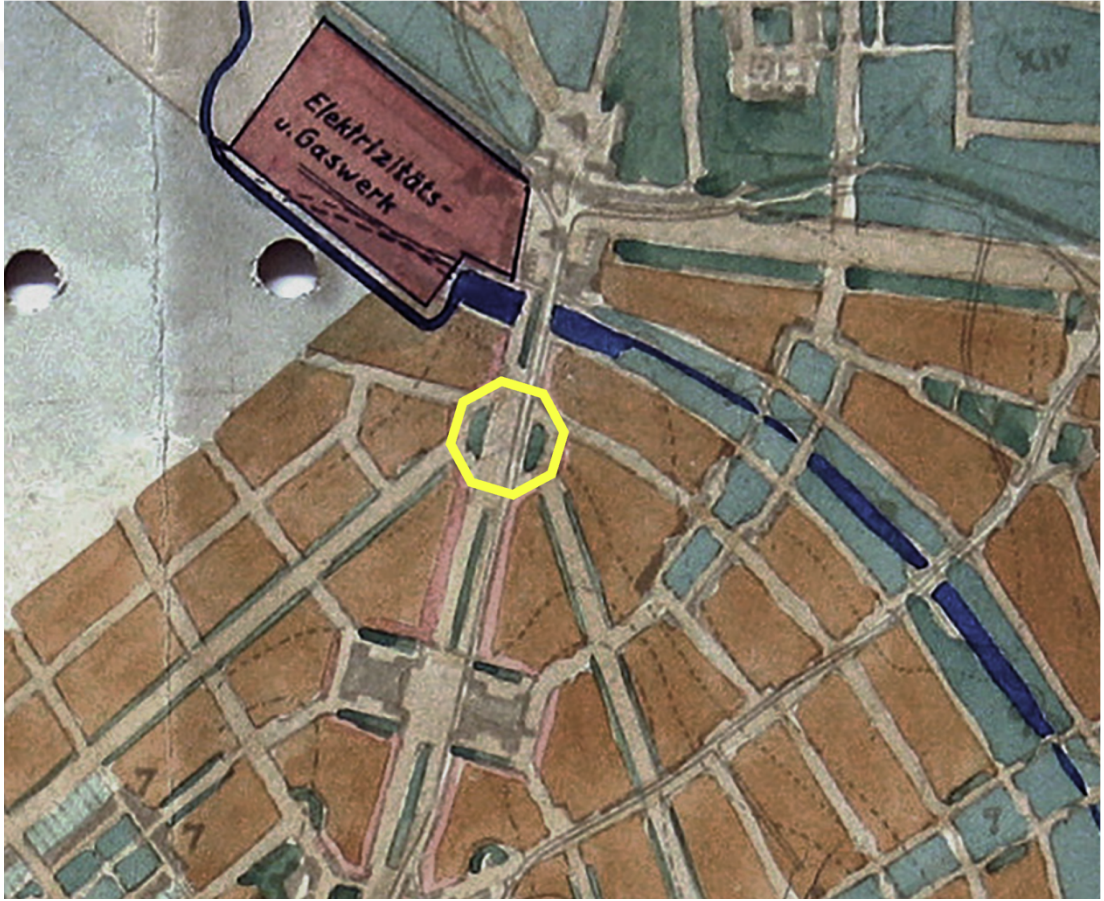


Figure 17. Octagonal Square

(Adapted from personal archive of Prof. Dr. Baykan Günay)

Constituting a mental gate to Ankara, Sıhhiye square both physically and spatially collects, welcomes people to the city, also considering it as a main junction where

people get on or off their means of transportation. Located at the crossroads one of which leads to the administrative area of the country where ministries take place, it directs people to the governmental heart of the country. When many factors such as the peculiarity of building blocks in terms of their design and dispersal in the area, the varieties in the square type, increasing number of public buildings, and the uniqueness of the user profile are considered together, this place can be considered not only as the entrance to the new center, but also as a gate to the innovations brought by the republic.

4.2 Accessibility to Sıhhiye

Sıhhiye is physically a multilayered area which has an underground, a multi-lane road at the ground, a U-turn bridge, a pedestrian overpass, a vehicle bridge and a train bridge. Since the region is very active and crowded in terms of transportation, a single layer was insufficient. The main reason for this crowd is its location.

In fact, while the region was being planned, pedestrian and animal power were mostly involved in transportation. In time, urban mobility increased with the city's gaining new functions and increasing population. As different parts of the city started to be used, the distances between them got longer and the need for motor vehicles increased. With the availability of technological opportunities, the number of vehicles increased rapidly. This has affected the use of the area. As it is equidistant from many parts of the city, it has become a node in urban transportation and almost evolved into an urban transportation hub, resulting from the site constituting a natural junction.

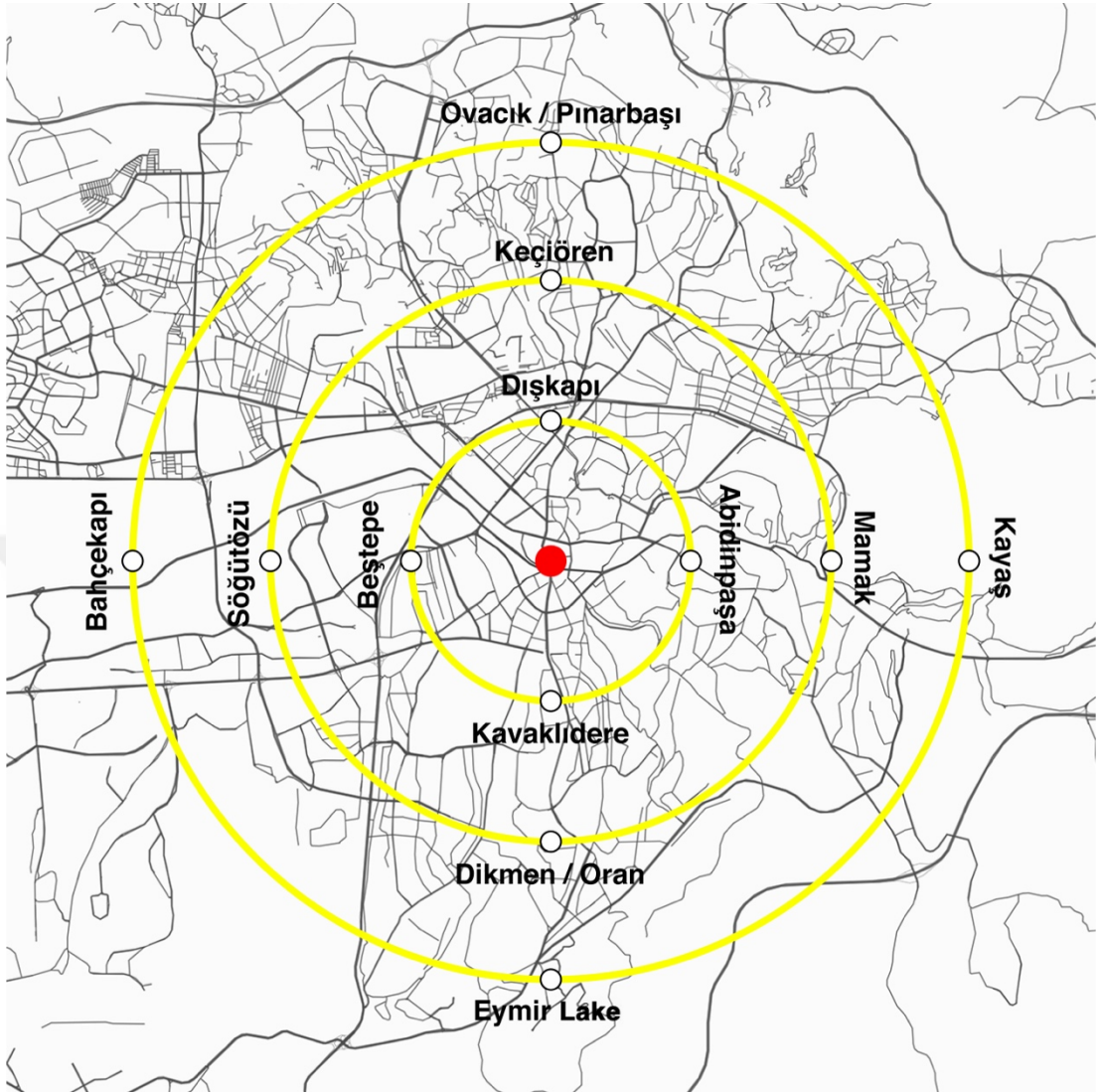


Figure 18. Districts Located Far Away from the Site (3-6-9 km)

(The Author)

To find a solution to this increasing mobility due to easy and preferred accessibility of the region, many attempts have been made over the years such as roundabouts, overpasses, and underpasses.

Today, the region is not only a place where public transportation is available vehicles pass, but also a stop for almost all of them because it is an ideal area for transferring people coming from and going to different parts of the city. For example, someone

coming from the north-south direction can change vehicles here and take another transportation vehicle over the bridge to move on the east-west axis of the city.

Table 1
Public Transportation

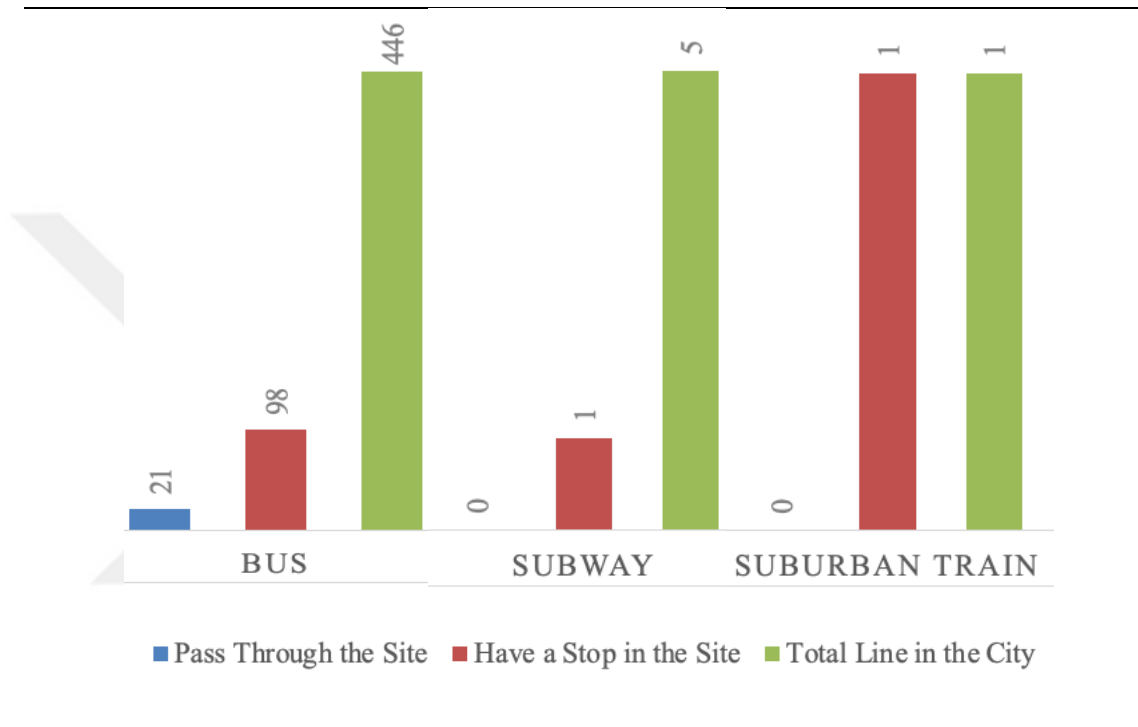


Table 1

There are bus, metro, minibus, and suburban services in the region. There are stops for the subway and train in the area. However, the interesting thing is the number of bus stops. When checking the route-stop numbers of buses on the Ankara metropolitan municipality website, one may realize that the square is a node (or hub) for transportation. There are almost 446 different bus lines in Ankara (Şehiriçi Ulaşım Bilgi Sistemi, 2020).. While 98 of them have a stop in Sıhhiye Area, 21 buses pass through it. In other words, almost 25% of all city bus lines in Ankara, which is a huge rate, come to the region and stop there.

4.3. Unseen Values in Sıhhiye Region

Sıhhiye area seems like an ordinary part of the city. However, when examined in detail instead of just passing through, it is noticed that it hosts a great heritage.

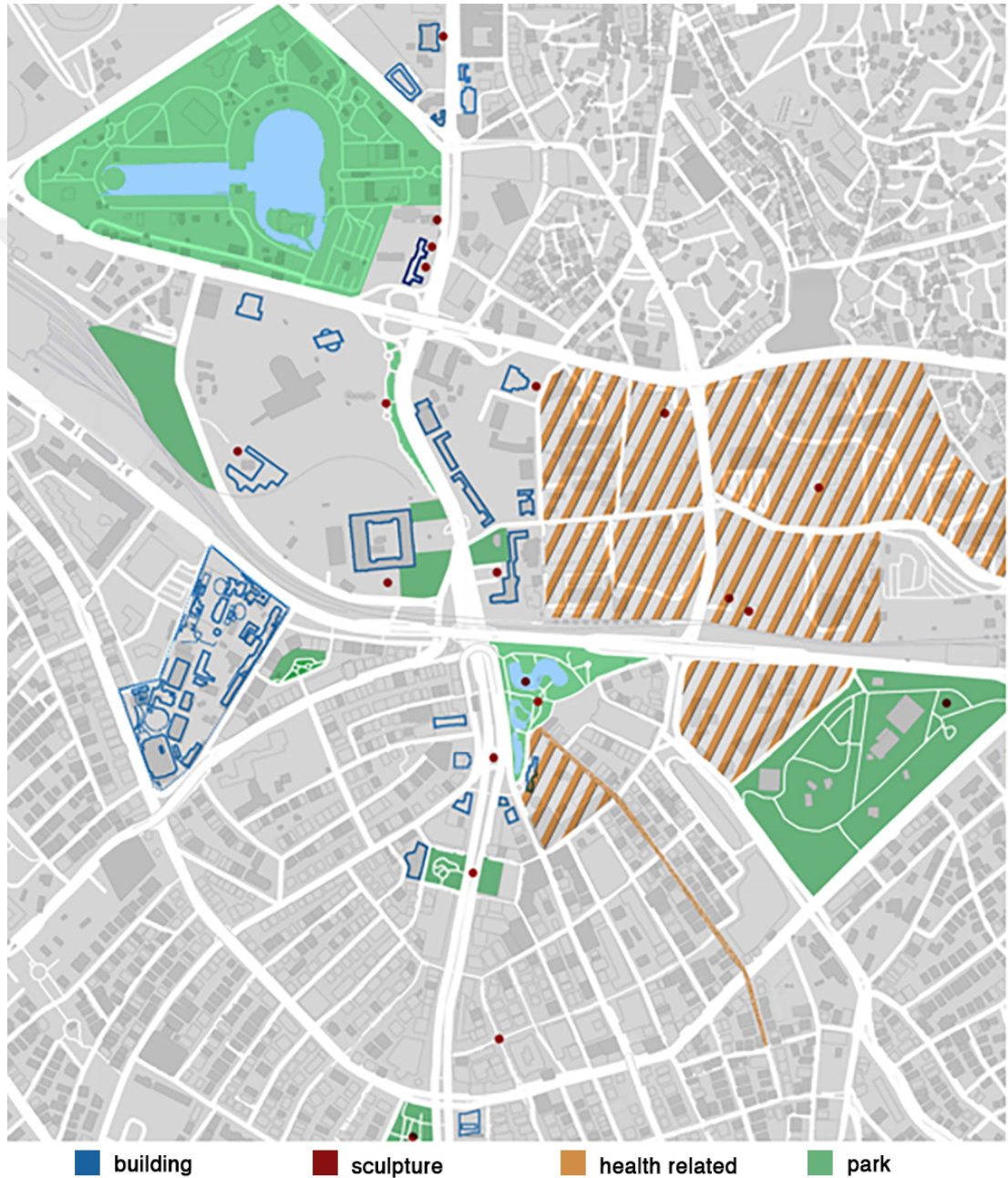


Figure 19. Map of Unseen Values of the Site (The Author)

It has values that have left their mark in many different fields such as art, architecture, green space, industry, and health. Therefore, it can be thought of as an open-air museum.

4.3.1 Buildings

Since the proclamation of the republic, there have been well-known buildings that have remained in Sihhiye Square and around its surroundings, and they are important in terms of architecture or function.

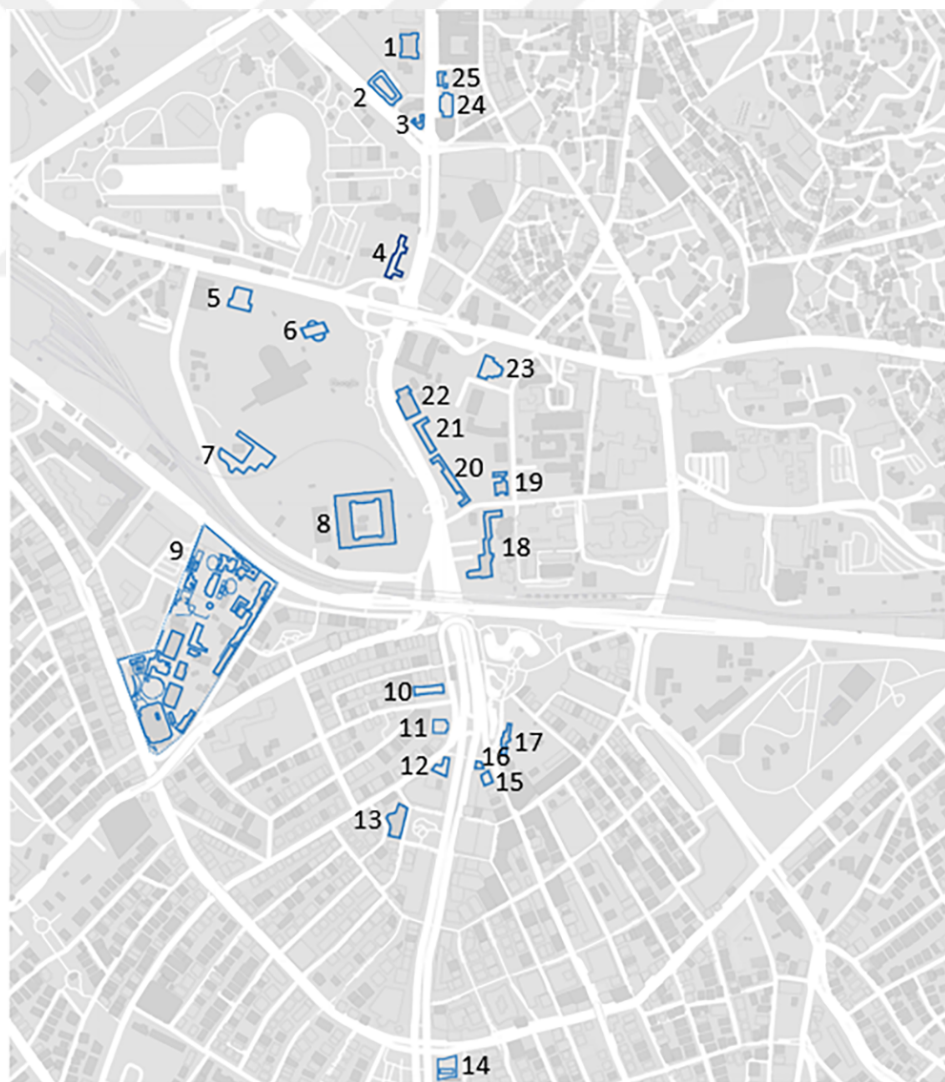


Figure 20. Map of Unseen Values of the Site: Buildings (The Author)

While buildings such as theaters, cinemas, and museums attach cultural value to the region, banks, courthouses, army houses, and ministries show the influence of the governmental center in the site. On the other hand, while the gas factory and railway repair atelier symbolize the region's unity with industry, the university and school buildings add a different value in terms of education. These structures with different functions and architectural styles enrich the region.















- | | | | | | |
|----|---|--|-----|--|--|
| 1. |  | Ziraat Bank Administration Building
Architect(s): Giulio Mongeri
Year(s) of construction: 1926-29 | 8. |  | Ankara Courthouse
Architect(s): Werner Issel
Year(s) of construction: 1978 |
| 2. |  | II. Vakıf (Evkaf) Apartment
Architect(s): Mimar Kemaleddin
Year(s) of construction: 1926-30 | 9. |  | Coal Gas Factory
Architect(s): Werner Issel
Year(s) of construction: 1928-33
Demolition year(s): 2006-2016 |
| 3. |  | Osmanlı Bank
Architect(s): Giulio Mongeri
Year(s) of construction: 1926 | 10. |  | Etibank
Architect(s): Vedat Özsan,
Toğrul Devres, Yılmaz Tuncer
Year(s) of construction: 1960
Demolition year(s): 2013 |
| 4. |  | Ziraat Bank Administration Building
Architect(s): Şevki Balmuncu / Paul Bonatz
Year(s) of construction: 1931 / 1947-48 | 11. |  | Ankara Cinema
Architect(s):
Year(s) of construction: |
| 5. |  | Presidential Symphony Orchestra Building
Architect(s): - / Ertuğrul Özakdemir,
Feridun Helvacıoğlu
Year(s) of construction: 1958 / 1961-62 | 12. |  | Sihhiye Army House
Architect(s): Clemens Holzmeister
Year(s) of construction: 1930-31 |
| 6. |  | Presidential Symphony Orchestra Building
Architect(s): Uygur Mimarlık
Year(s) of construction: 1992-? | 13. |  | Ministry of Public Works and Settlement
Architect(s): Clemens Holzmeister
Year(s) of construction: 1933-34
Demolition year(s): |
| 7. |  | Cermodern
Architect(s): - / Uygur Mimarlık
Year(s) of construction: 1926-27 / 2010 | 14. |  | Emek Office building
Architect(s): Enver Tokyay
Year(s) of construction: 1959-65 |

Figure 21. Unseen Values of the Site: Buildings (The Author)

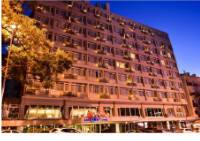










15.  **Kent Hotel**
Architect(s):
Year of commissioning: 1964
16.  **Yüksel Palas**
Architect(s):
Year of commissioning: 1949
17.  **Ministry of Health**
Architect(s): Theodor Jost
Year(s) of construction: 1926-27
18.  **Faculty of Language and History-Geography**
Architect(s): Bruno Taut
Year(s) of construction: 1937-38
19.  **Turkish Historical Society**
Architect(s): Turgut Cansever, Ertur Yener
Year(s) of construction: 1951-67
20.  **Zübeyde Hanım High School**
Architect(s): Ernst A. Egli
Year(s) of construction: 1925-28
21.  **Ankara Institute of Maturation**
Architect(s): Ernst A. Egli
Year(s) of construction: 1927 / 1962
22.  **TRT Ankara Radio**
Architect(s):
Year(s) of construction: 1938
23.  **Painting and Sculpture Museum**
Architect(s): Arif Hikmet Koyunoğlu(?)
Year(s) of construction: 1927 / 1980
24.  **PTT Stamp Museum**
Architect(s): Clemans Holzmeister
Year(s) of construction: 1933-34
25.  **Tekel Head Office**
Architect(s): Giulio Mongeri
Year(s) of construction: 1928

Figure 21. continues

The most renown buildings standing precisely in the square are Ministry of Health (It was converted into the governor's office while the work was in progress.), Etibank, Ankara Cinema, Sıhhiye Military Officers' Club and Yüksel Palas (Hotel).



Figure 22. Ministry of Health Building

(Sihhiye ve Muavenet-i İctimaiye Vekaleti Binası, n.d.)

Ministry of Health building, where the name of the square comes from and which is used as governor's office today, was designed by Theodor Jost between the years 1927-1929 and constructed in early 1930s. The building, which is one of the representatives of art deco movement in Ankara, was planned in a symmetrical order like other public buildings built in the years it was built (Yazman, 2013). It is the most significant structure in the square because it works in harmony with octagonal form of the place.



Figure 23. Etibank Building (1960's) (Modern Mimari Miras, 2022)

Etibank building, which was designed by Vedat Özsan, Tođrul Devres and Yılmaz Tuncer in 1960, was demolished in 2013, and positioned as a large mass with a simple and modern design approach in harmony with the baroque structure of the square. The building could be called a secret art museum in the middle of the city because it was home to important ceramic, mosaic artworks and sculptures both on its interior and exterior walls (Eskici & Şener, 2013).



Figure 24. Sıhhiye Officer's Club Building (Ankara - Eski Fotođraflar, 2007)

Sıhhiye officer's club was designed by an Austrian architect Clemens Holzmeister and constructed in 1930-1931. He designed many public buildings and army structures for Ankara. Like the other designed buildings by him, this building also reflects the formal architectural approach to public buildings of the city with its design. The building is still used and protected with the same function.

4.3.2 Sculptures

Sculptures that allow art to intersect with the city are positioned in this region in places such as parks, building gardens and at crossroads. Many of the sculptures are the postures of well-known people. In addition, there are fountains and imaginative artworks. One of them, Hittite Sun Course Monument became a landmark for the place.



Figure 25. Map of Unseen Values of the Site: Sculptures (The Author)

- | | | | | | |
|----|---|---|-----|--|--|
| 1. |  | Mithat Paşa Statue
Sculpturer: Hüseyin Anka Özkan
Production year: 1966 | 8. |  | Hitit Güneş Kursu Statue
Sculpturer: Nusret Suman
Production year: 1978 |
| 2. |  | Nursultan Nazarbayev Statue
Sculpturer:
Production year: 2010 | 9. |  | Mareşal Atatürk Statue
Sculpturer: Pietro Canonica
Production year: 1927 |
| 3. |  | Leyla Gencer Statue
Sculpturer:
Production year: | 10. |  | Security Statue
Sculpturer: Anton Hanak,
Joseph Thorak
Production year: 1935 |
| 4. |  | Cüneyt Gökçer Statue
Sculpturer:
Production year | 11. |  | Taşankara Statue
Sculpturer: Jorgen Haugen Sørensen
Production year: 1992 |
| 5. |  | Muzaffer Sarısözen Statue
Sculpturer: Metin Yürdanur
Production year: 1993 | 12. |  | Hands Statue
Sculpturer: Metin Yürdanur
Production year: 1980 |
| 6. |  | Abidin Dino Statue
Sculpturer: Tankut Öktem
Production year: | 13. |  | Pool Fountain
Sculpturer: Remzi Savaş
Production year: 1980 |
| 6. |  | Water Fairies Statue
Sculpturer:
Production year: 1925 | 14. |  | Yellow Girl Statue
Sculpturer: Selim Turan
Production year: 1993 |
| 7. |  | Atatürk and Law Statue
Sculpturer: Metin Yürdanur
Production year: 1995 | 15. |  | Child Statue
Sculpturer: Nusret Suman
Production year: |

Figure 26. Unseen Values of the Site: Sculptures (The Author)

16.

Child and Mother Statue
Sculpturer: Hüseyin Gezer
Production year:



17.

Mimar Sinan Statue
Sculpturer: Hüseyin Anka Özkan
Production year: 1966

18.



Atatürk Statue
Sculpturer: Hüseyin Gezer
Production year: 1933

19.



İbn-i Sina Statue
Sculpturer:
Production year:

20.



İbrahim Çallı Statue
Sculpturer:
Production year:

Figure 26. continues



Figure 27. Hittite Sun Course Monument (I) , City Symbol (II), City Symbol (III)

Hittite Sun Course Monument was used as the symbol of the capital, Ankara (between 1973 and 1995) (Yılmaz, 2016). The monument was sculpted in 1978 while the mayor was Vedat Dalokay and built by Nusret Suman and is located at the roundabout in the square of the Sıhhiye (Duyan, 2011). Although the form of the

intersection has changed over time, the statue has always remained in the middle of square.



Figure 28. Eller Sculpture in Abdi İpekçi Park (The Author)

In 1979, Ankara Mayor Ali Dinçer (1977-80) ordered the sculptures Remzi Savaş, Burhan Alkar and Metin Yurdanur as a part of a project 'to equip the city with plastic elements'. Metin Yurdanur's "Hands" sculpture was placed in Abdi İpekçi Park within this scope. The sculptor thought that the hands are the part of the brain and the eyes. He said that the hands in the statue symbolized labor, production and creating hands. Now, the statue has become the symbol of the park.

4.3.3 Parks

While Ankara was beginning to be planned, green areas and water resources were preserved, and an effort was made to ensure integrity with the city. For this reason, there are green axes in Ankara's first plans. Çubuk, İncesu, Ankara and Hatip brooks were important for the city. İncesu River was a component of the urban area, passing through the city (especially in Sıhhiye region) and feeding the green areas around it.

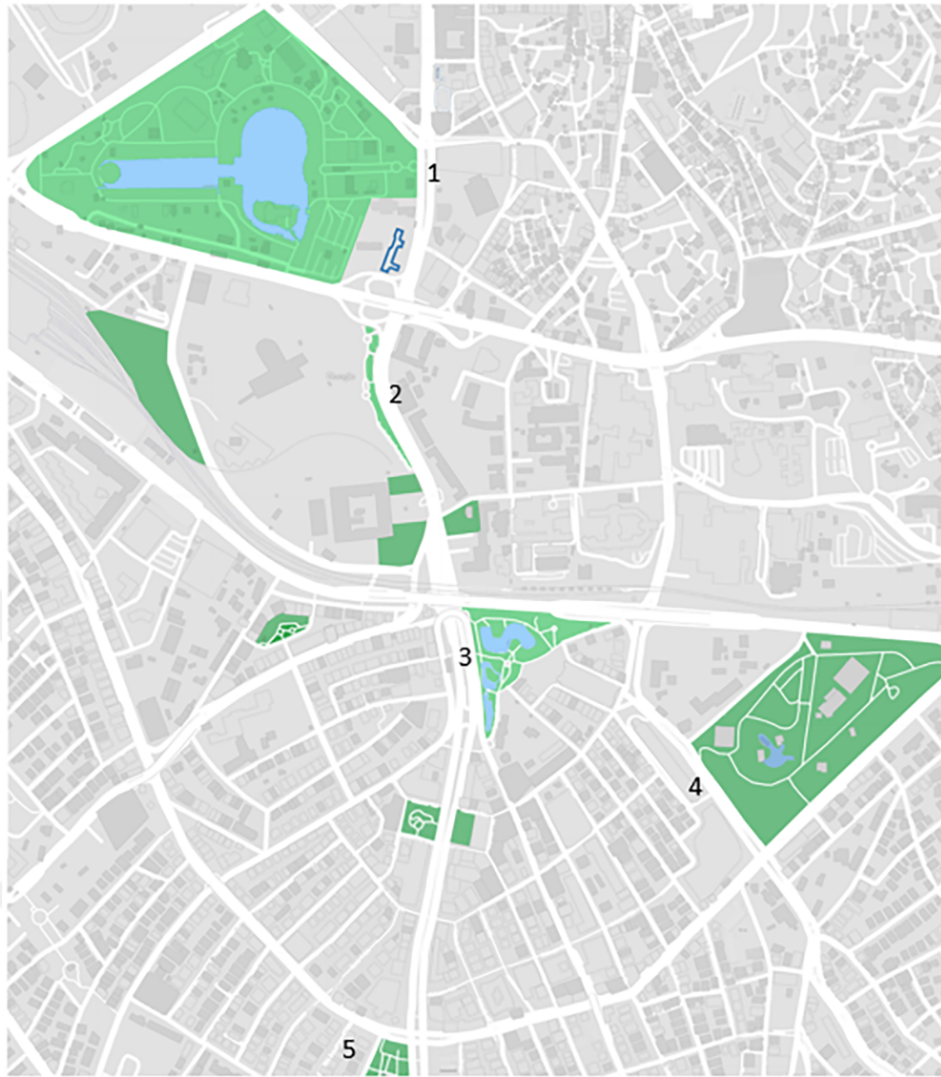


Figure 29. Map of Unseen Values of the Site: Parks (The Author)

The main axis of Ankara is Atatürk Boulevard. When the park / green areas on the right and left of this axis are compared, it is noticed that there is a disproportionate distribution of green areas in the city. However, one can realize that parks are almost proportionally available when focusing on the surroundings of the square. The open and green spaces in the city center are independent and disconnected from each other.



Gençlik Park
Opening year: 1943 / 2008-09

Pool: 44.296 m²
Grass: 70.422 m²
Playground: 1.029 m²
Amusement park: 25.000 m²
Opera house: 10.000 m²
Theater hall: 8.000 m²
Total: 275.000 m²



Cumhuriyet Park
Opening year: 2002

Pool: 398 m²
Grass: 4.209 m²
Total: 8.032 m²



Abdi İpekçi Park
Opening year: 1981 / 2000

Pool: 6.376 m²
Grass: 8.295 m²
Playground: 250 m²
Total: 33.120 m²



Kurtuluş Park
Opening year: 1980 / 2000

Pool: 2.000 m²
Grass: 49.000 m²
Playground: 3.000 m²
Picnic: 10.000 m²
Sport: 200 m²
Total: 86.200 m²

Figure 30. Unseen Values of the Site: Parks (The Author)

Abdi İpekçi Park, which is one of the biggest city center parks of the Ankara, is located on one side of the Sıhhiye Square. The Park is not a place where people choose to visit intentionally, but it is used as a way to get rid of the crowd of the city for a short time and a shortcut to access the bus, minibus and metro stops (an inference made as a result of observation).

However, it is an inevitable element that provides solid and void balance of this square, which is dominated by buildings and large masses. On the other hand, the

park, which is an important part of the green axis created during the first urban plans of capital city, can be interpreted as the green trace of the republic.

4.3.4 Health and Service Areas

Sihhiye literally means medical related matters. As can be understood from the name of the region, there are many health-related structures here.

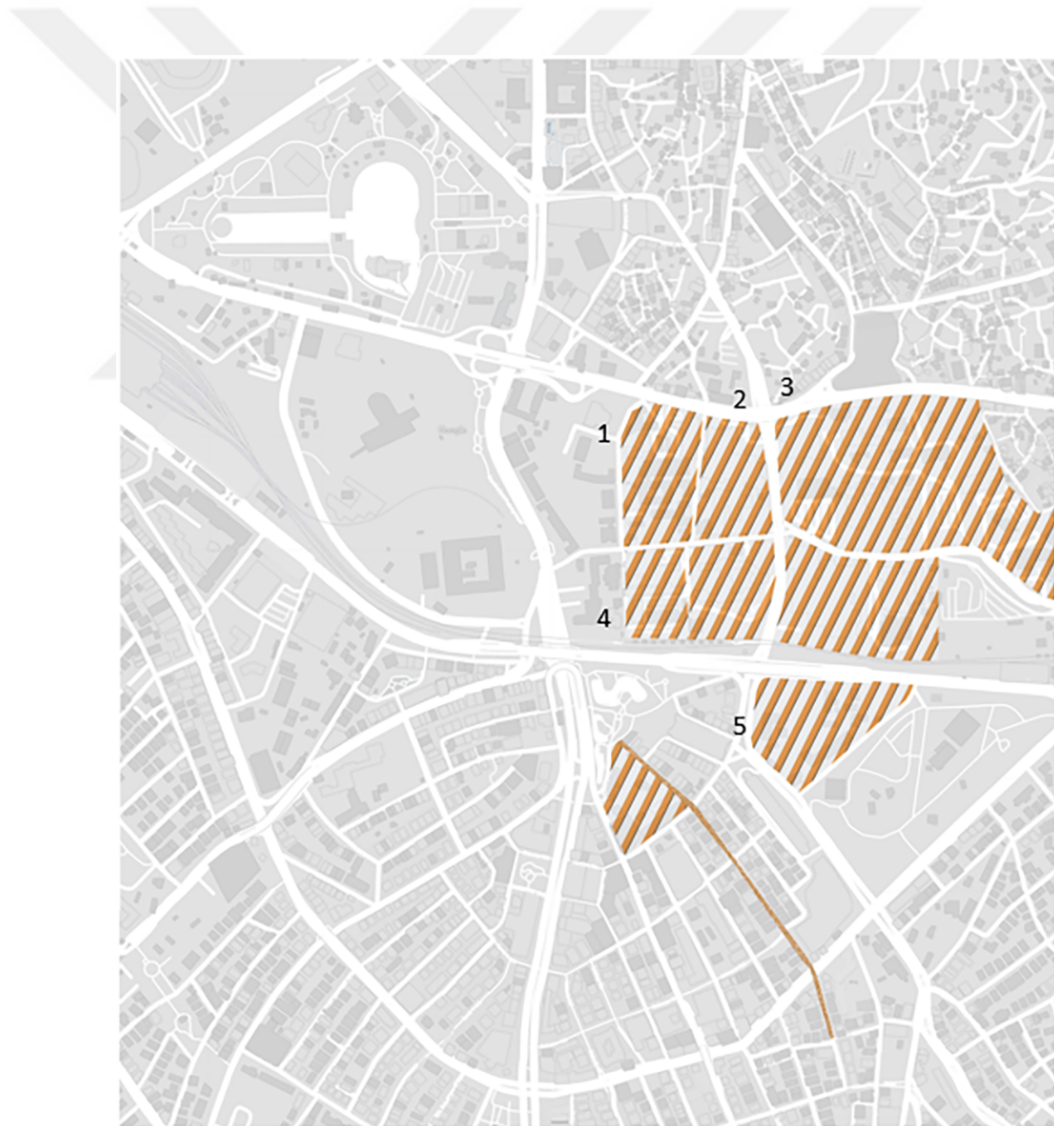


Figure 31. Map of Unseen Values of the Site: Health Zone (The Author)



Numune Hospital
Opening year: 1881
Average number of patients:
Number of beds: 997



Ankara Hospital (İbn-i Sina)
Opening year: 1985
Average number of patients: 425.000
Number of beds: 2000 / 902



Hacettepe Hospital
Opening year: 1966
Average number of patients: 1.000.000 + 50.000
Number of beds: 1.040



Yüksek İhtisas Hospital
Opening year: 1964
Average number of patients: 300.000 + 16.000
Number of beds: 500

Figure 32. Unseen Values of the Site: Health Zone (The Author)

The buildings are not only the prominent hospitals of the city, but also, they are the institutions where the country's most important research in the field of health is carried out. Also, health-related medical decisions are made in health ministry building and Institute of Public Health. Since everything related to health in the country proceeds here, the region is called Sıhhiye. However, Sanitary Institute was closed, the ministry and many hospitals have moved from the region. Consequently, it can be claimed that the area has lost its importance in terms of health today.

4.4 Evaluation

The case area is physically different from other squares in that it is a multi-layered place in the city center. It is also a place that many citizens pass through or are familiar with because of its location. It is renowned for its easy accessibility and ease of access to other parts of the city. Moreover, apart from its physical structure and plan, the place has also born a historical meaning for the capital. It is a city gate that is covered with the traces of the Republic. From another point of view, when examined in detail, it embodies many values such as art, architecture, health, green spaces that make up the city. The multi-layered structure mentioned at the beginning is valid not only in physical terms but also in many other aspects. This region, which has historical value, where many different inputs come together, is a place with plenty of spatial diversity to examine how different layers have affected each other over time.

CHAPTER 5

CASE STUDY:

Reading a Region Through Its History,

Planning Experience and Morphology

The aim of this chapter is to put the methods which are utilized for the thesis into practice. Within the framework of this chapter, spatial photographic analysis, map reading, and space syntax analysis are applied respectively on the selected case area; Sihhiye, Ankara.

5.1 Photographic Analysis of Sihhiye: From 1920s to 2000s

As it is explained in methodological framework, in the thesis, conventional and modern methods are combined to thoroughly comprehend how to extensively read a historical and central urban place like Sihhiye. Photo-reading is, therefore, the initially stated method of the study. As already mentioned, it is a conventional and qualitative method of analyzing an urban place.

As it has been explained in the Methodology section before, photography is the instant recording of a moment. In other words “photography isolates, preserves and presents a moment.” (Berger, 2013). It is an effective way to demonstrate the soul of place, ceremony, nature, or anything. For a space reading study where one needs to analyze social morphological and even cultural and historical characteristics of an urban place, maps, oral and written history are not enough to understand social and

spatial configurations of that place. However, photography helps us to find out not only the historical memories of an urban place but also the changing perceptions and cognitions. Photographs reflect the ideologies, tendencies or affiliations with respect to political, economic and social status a society bears because such statuses pose impact on architecture and city planning. (Ürtekin & Özker, 2019). Relatively, reflections can be observed regarding both the atmosphere of the periods and people's perception of the city in photographs. In this part of the study, photographic analysis is defined as one of research methods of the thesis which helps to find out the transformations regarding the perception of space in Sıhhiye region.

The photographic analysis is, without a question, a subjective way of analyzing an urban place in its nature. It is because a photograph expresses the photographer's view at first sight. However, photography is the only way to have a visual idea about an urban place's past as well. Photographs are, therefore, utilized so as to determine the spatial cognitions of a site in signified periods.

In the analysis made, the aim was to understand the rhythm of the site, and flow of the daily life was examined from a general frame. In addition, the objects, population, buildings, or other elements in some photographs were examined in detail, and inferences were made about the user profile and its probable purpose. In the photographic analysis of Sıhhiye in the thesis, historical photographs were first listed in chronological order. Then, the parts that have important information about the site were examined.

5.1.1 1920-1940 period: Sıhhiye in Early Republic Period

The bridge is the most characteristic feature of Sıhhiye region. Bridge has two meanings, first one is "a structure that is built over a river, road, etc. so that people or

vehicles can go across it”, the other one is “something that connects two groups, organizations, etc. and improves the relationship between them.” (cambridge dictionary, n.d.).

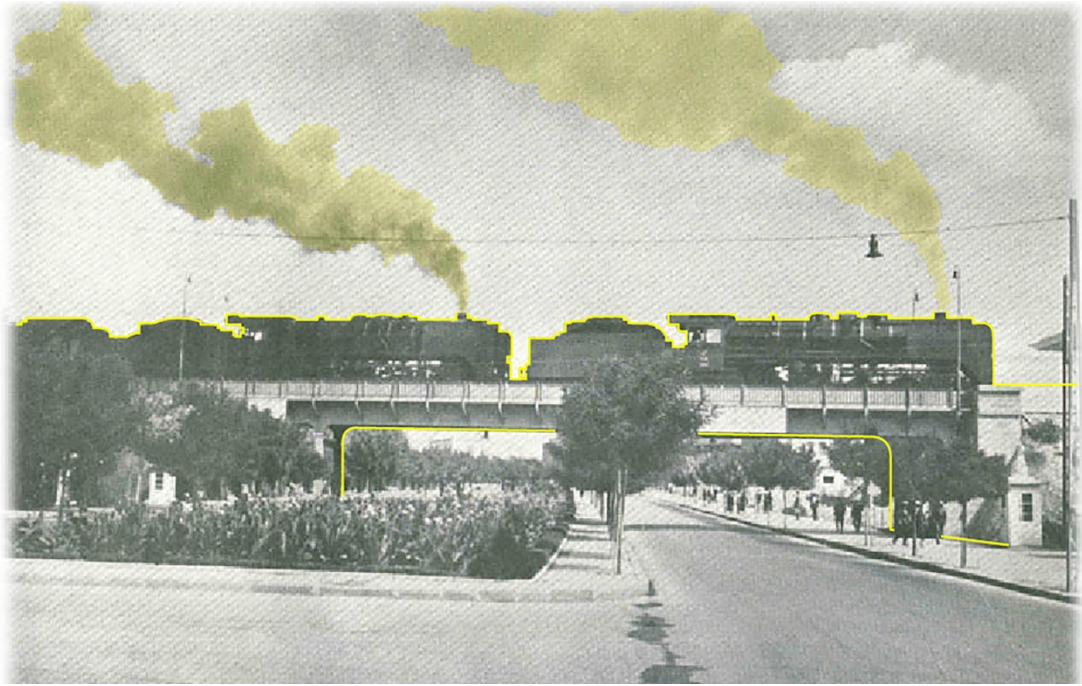


Figure 33. Train Bridge, view from square to Opera (1930’s) (Sariaslan, 2013)

The photo was taken in the early 1930s, almost 10 years after Ankara became the capital city of Turkey. Train was the centerpiece of transportation of Turkey earlier; therefore, railways were built in the fast lane across all over the country in the early years of the republic period of 1923-1960 (TMH, 2006). The train bridge, which was completed in 1926, connects the east-west axis of the city from Mamak to Kayaş (Cengizkan, 2021). In railway transportation, it was mainly the steam locomotive used during those years which lacked the power to climb the slope of Elmadağ, Ankara. That was the reason why two locomotives were in use. With the effect of technological developments, electric trains replaced locomotives. The change in the working system of trains caused incompatibility with the railway. As a result of this, the railway bridge was demolished in 2016. A more advanced railway bridge began to be built and its construction was completed in 2018 (Republic of Turkey Ministry

of Transport and Infrastructure, 2020). This situation has led to a change in the position of the bridge, which is the first element, and thus, a change regarding the sense of the site has been inevitable.

While the bridge connects the west and the east sides of the city physically, on the other hand, it socially separates the poor from the rich who are located at the different sides of the city. The high-income group lives in the west side although the low-income group lives in east side of the bridge. This distinction can be easily observed when the resident population profile and built environment are examined. Since the bridge was built, the border effect has been noticeable. Consequently, the train bridge has become a strong border. On the other hand, the boulevard (Atatürk Boulevard), which goes through from Ulus (old city center) to Yenışehir, creates a perceptual change while one passes under the bridge. The bridge and the square have played an essential role as a gate to Yenışehir. In other words, the place was a welcoming space to the republic. The idea comes from Lörcher's Plan (1924). It is supported by the boulevard form, environmental elements, and landscape.



Figure 34. A Watcher, in front of the Ministry of Health (1932)

(Sihhiye-1932, n.d.)

In that period, there were guards at three different points of the boulevard; in front of Opera building, Sıhhiye Square and Kızılay Square (Cengizkan, 2021). The guards controlled the passage from Ulus to Kızılay. Since it is a road leading to ministries, guards can be considered as a symbol of the power and control of a new state.

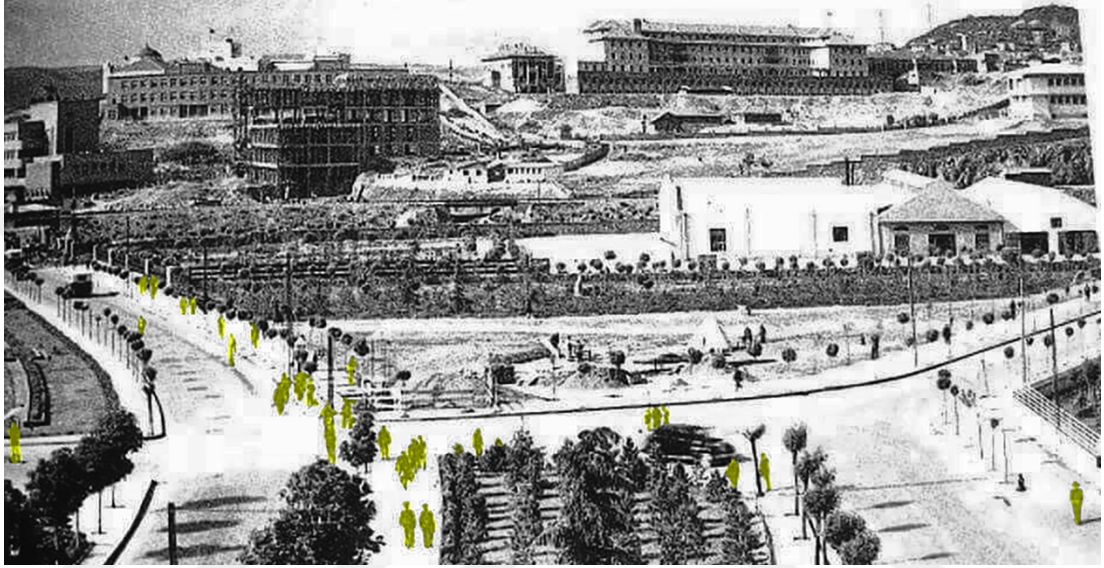


Figure 35. People Walk in the Square (1935)
(personal archive of Prof. Dr. Ali Cengizkan)

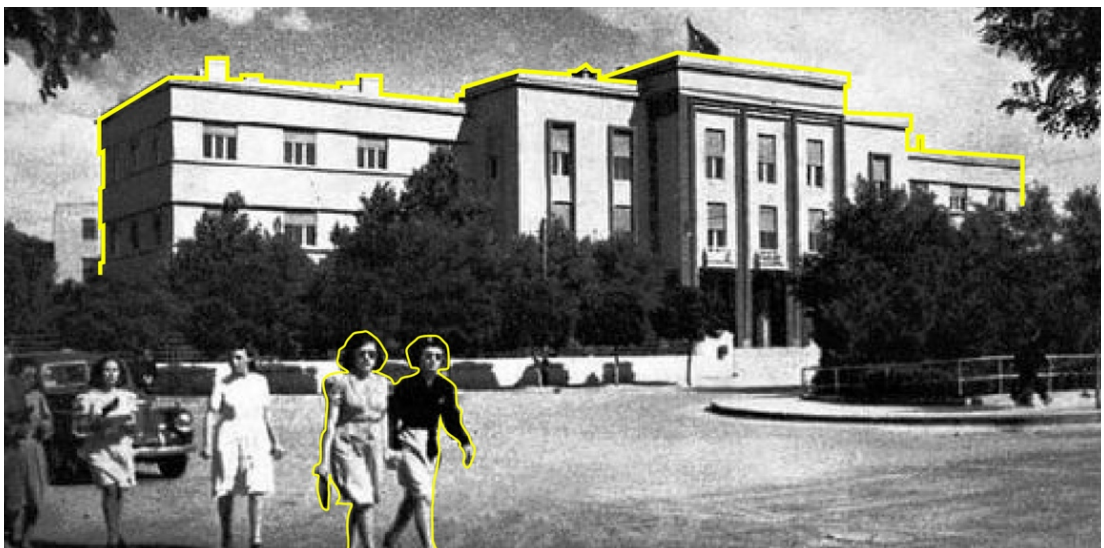


Figure 36. Well-Dressed Women in front of the Ministry of Health
(Sağlık Bakanlığı, n.d.)

The people seen in the photographs were probably officers of the time, which can be best understood from the place where the photograph was taken (in front of the ministry of health building) and their dressing style. With the effect of the hat and clothing reform made in 1925, it is seen here that people's clothing styles became modern (Ataturk Cultural Language and History Higher Institution, n.d.). In the early years of the republic, Ankara was the core of modernization. Since the ministry building seen at the back and other public buildings were located on the boulevard, most of the population using this place consisted of officers. The working hours of the public buildings were close to each other, so this created rush hours.

5.1.2 1940-1960 period: Sıhhiye as the “modern” face of Ankara

This period is considered as a period when the boulevard, which was well defined, was emphasized with landscape. New structures and artwork are signs of modernization in the city.

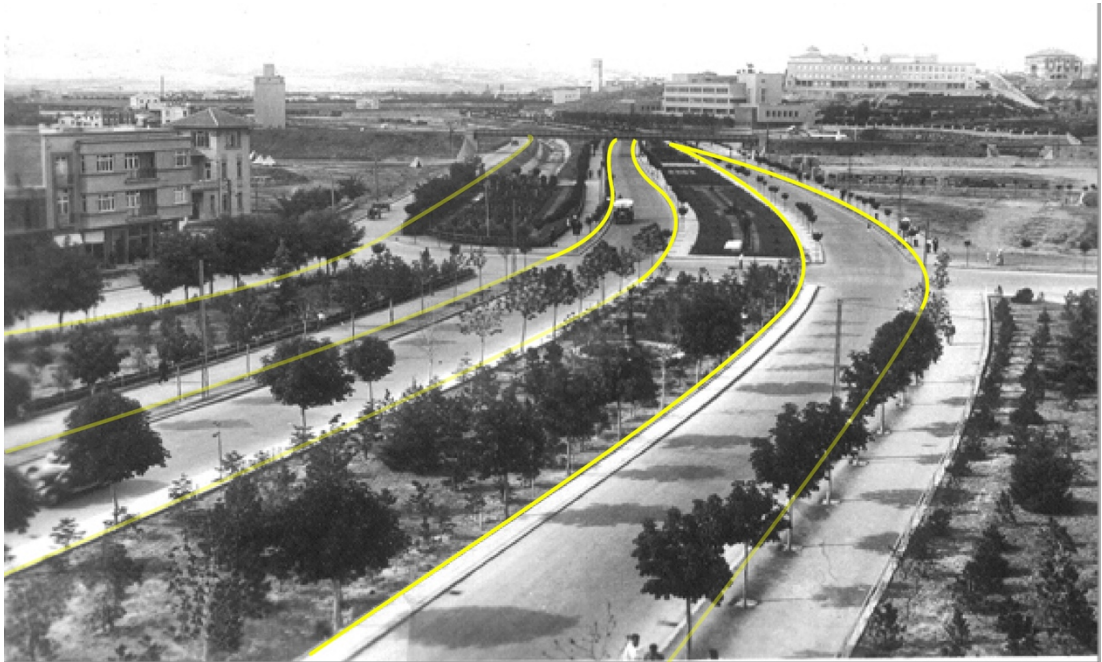


Figure 37. A View from Ministry of Health to Train Bridge (1940s)

(personal archive of Prof. Dr. Baykan Gnay)

In the photo, the first thing to notice is the well-defined boulevard design with the integration of green areas and the proportion of vehicular paths to pedestrian paths. One can predict from the photograph 38 that the width of roads were approximately 7 meters (2 lanes) and width of pavements are 3-4 meters. This clearly indicates that pedestrian and vehicle circulation were attributed almost equal importance in the day.

In the photograph, the first function of the trees was isolating pedestrians from traffic chaos, noise, exhaust gas and making the route a safer way for walking. In other words, sidewalks were identified with rows of trees. They had another role which was to specify the entrance to Yenişehir. It seems that the road which was emphasized with rows of trees created a ceremonial atmosphere for the people who entered to the site.



Figure 38. A view from the Faculty of Languages, History and Geography to Train Bridge (early 1940's)

(Personal archive of Prof. Dr. Baykan Günay)

The idea of the gate was foregrounded in the figure 38 with roads, green areas, and bridge. The bridge created a great hegemony in its environment.

In the figure 38 the marked building shows the Faculty of Languages, History and Geography, which is still standing in Sıhhiye. It was designed by J.F. Taut (DTFC, n.d.) and constructed between 1938-1939. It was established in 1935 with the mission and vision of a carefully administered higher education. Faculty building emits the idea of being a gate for Yenişehir with its conceptual meaning and its location. It was an entrance to the “modern” Sıhhiye not only as being a university campus but also as a representative of modernization and enlightenment, representing the path the young republic also aimed to follow.



Figure 39. Train Fountain in Front of the Ministry of Health (~1940)

(Türkyılmaz, 2015)

Nereid Sculpture (fountain) was located in front of Ministry of Health in 1927. It was a bronze fountain which was decorated with baby nereid and eros figures. It was sculptured with the intention of creating a modern capital city. In those days, poolside celebrations were very popular in Europe, so in the photo, it can be easily seen the fountains were also used as a tool to engrain different cultural codes. After many years of being located in garden of the ministry, it was moved to the center of Sıhhiye (Lozan Square), where the Hittite Sun Course Monument has been standing since 1978 (approximately) (Duyan, 2011). Other than this one, six nereid sculptures were located in different focal points of Ankara such as in between Uybadin Mansion and Kızılay Central Office.



Figure 40. Nereid Sculpture (fountain) in 2020 (The Author)

Unfortunately, some of them were lost, others are still standing in the garden of Cermodern /Ankara and İzmir Street / Ankara in a condition that no one can be aware of how precious they are regarding the urban history of Ankara. (Duyan, 2011)

The Ministry of Health building seen in the figure 39 was constructed in 1926-1927. It is the building which gave its name to square 'Sıhhiye'. It was one of the first

massive structures on the square and it became a landmark of the site. Although the function of the building was changed afterwards (specifically in 2017), the square is still called the same name; Sıhhiye.



Figure 41. Sıhhiye Square in Scenes from Five Fingers Movie (1952)

Five fingers is a spy movie that was released in 1952. The scenes extracted from the movie signify the site as a gate to new city center with its modern face reflecting the new republican era; with rows of tree newly planted and newly built cafes. Figure 41

shows the spy sipping his cold beer in the café of Yüksel Palace Hotel, looking towards the old city center, Ulus. It clearly exhibits role of the site as a well-designed part of the boulevard. During the period, the site is foregrounded as a juncture through which trolleybuses as well as other mass-transportation vehicles pass.



Figure 42. Gasworks Factory (1940's) (Şipka, 2019)

In figure 42 Gasworks fabric is seen in 1940s. As a reminder, 1940-1960 era was the industrialization period for Ankara and the Gasworks building, in that sense, provides vital clues about the industrial developments of the city for these years. The Electricity and Gas Factory included a power plant structure, chimneys and gas furnaces designed by Werner Issel between 1928 and 1933. There was a flour factory and small-scale industrial enterprises in the surroundings of the Airgas factory, which means that the area was a part of a greater industrial district which had a strong connection to the railway. (Goethe-Institut Ankara, 2010b)

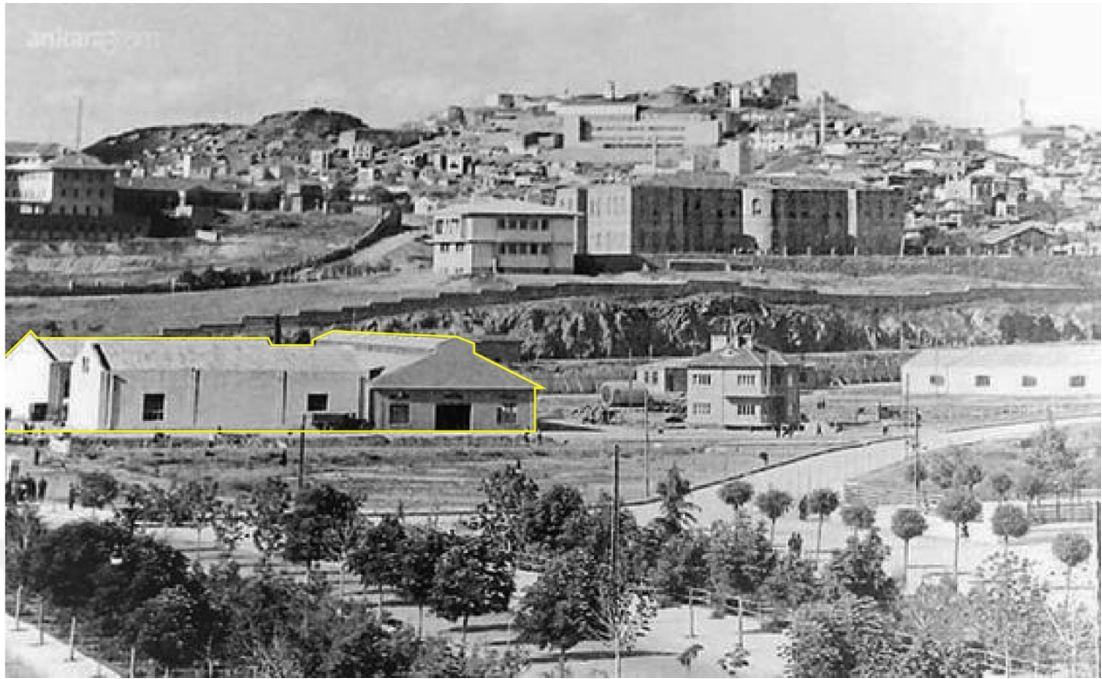


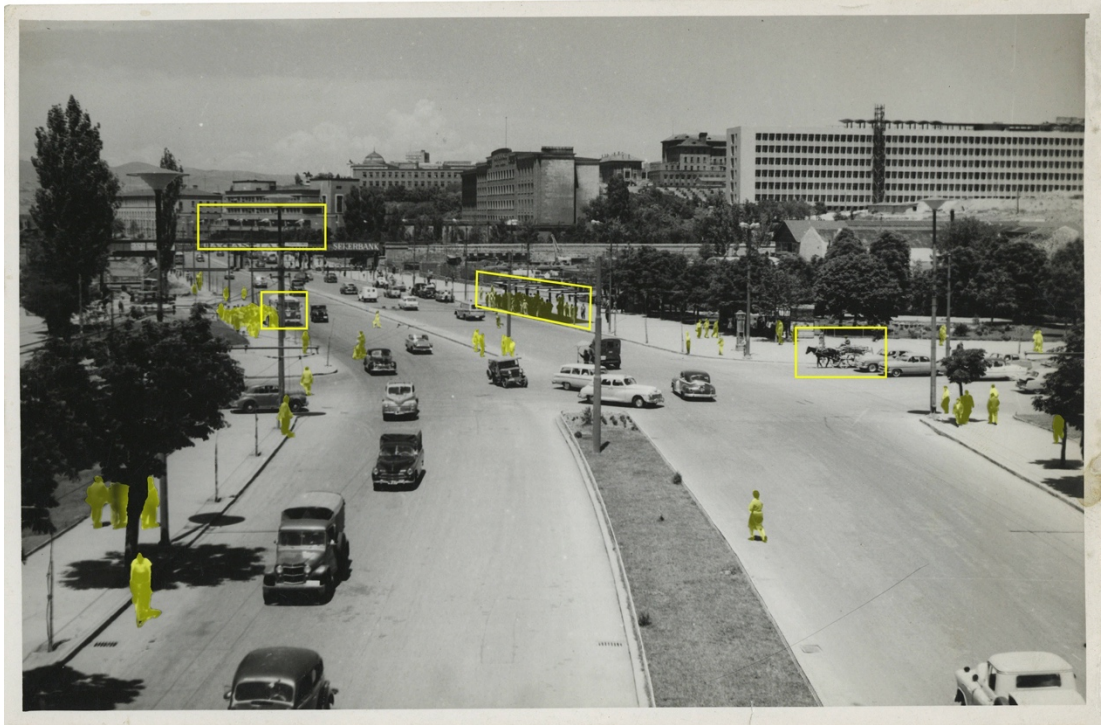
Figure 43. Bus Depot of Municipality
(personal archive of Prof. Dr. Ali Cengizkan)



Figure 44. A 'Zis' Brand Bus (EGO General Directorate, n.d.)

There was a municipality bus depot in the marked part of Sıhhiye in the years of 1930s-1950s as can also be observed in figures 43 and 44 (Özalp, 2016). To the best of someone's recollection:

“Zis brand buses were used. ‘Uray Otobüsleri’ (municipality bus) was written on them. Uray means municipality, but it was forgotten, because the public did not adopt the word. The garage of the buses was located where today's Abdi İpekçi Park is in Sıhhiye. This garage was completely burnt in 1946. On the roads, there were different types of phaetons (one or two horse) and two-seater carriage, as well as horn-equipped vehicles such as Dodges, Fords and Chevrolets. Horn was forbidden on the roads.” (Ergir, 2004)



*Figure 45. A View from the Middle of the Square to the Bridge
(personal archive of Prof. Dr. Baykan Günay)*

So, trains, buses, cars, and horse-drawn vehicles could be seen at the same time in the years of late 1950s in Sıhhiye. This is an indication of the fact that the site was a crowded place in terms of transportation as well. It was a transportation hub for the city which played an important role in this regard.

5.1.3. 1960-1980 period: Sıhhiye became a junction

In 1960's, one of the most remarkable components of Sıhhiye was the İncesu Stream. It was unique to Ankara, because there was no natural water element in the boulevard other than the İncesu Stream. Besides, it became more visible and noticeable due to a large-scale loss in green areas (especially the row of trees). Although it had a substantial visual and ecological value for the place, it was alienated from green areas compared to 1940s.



Figure 46. A View from Etibank Overlooking the Bridge (1960s)

(personal archive of Prof. Dr. Baykan Günay)

The design of the boulevard was changed in line with a pedestrian-friendly approach because of the increasing population. Many governmental offices and modern apartments were built in Sıhhiye in the period beginning with 1960. The number of workplaces such as Ministry of Health, Gasworks, Turkish Radio and Television Association, Turkish Historical Society, a courthouse, hospitals, and residential building increased in number. More people started to utilize Sıhhiye for reasons of work, education (e.g. DTFC, Hacettepe, Zübeyde Hanım High School) or residence. This rise in settlements affected the density and modes of transportation as well. The effects of both technological developments (increase in the number of motor vehicles) and increase in the number of people who use public transportation gave way to the requirement for wider roads. For wider roads, pavements and green spaces were minimized and the greater concern was attributed to vehicular circulation.

The function of the bridge gained more significance in 1960s. It made Sıhhiye more accessible both from the east and west sides of the city. However, the gate effect of Sıhhiye shrank. The area began to lose its initial plan structure and its previously constructed environmental features. Therefore, a new atmosphere/ambiance/mood started.



Figure 47. Etibank Building (1960) (personal archive of Prof. Dr. Baykan Günay)

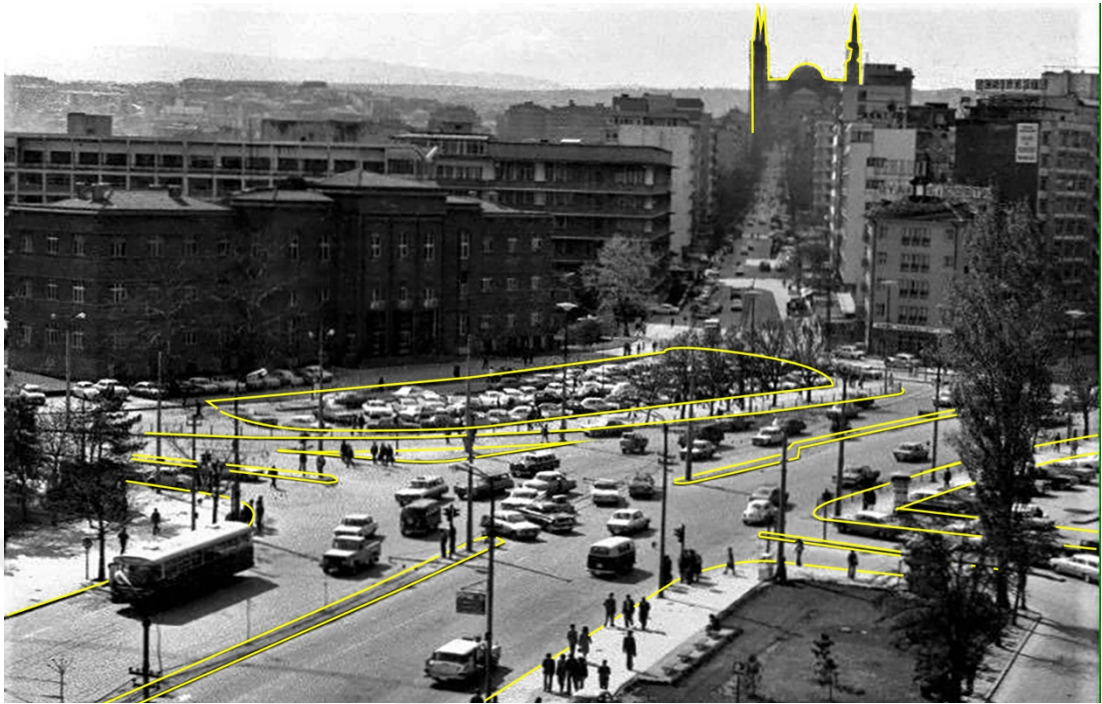


Figure 48. From Etibank to Kocatepe Mosque (1979) (Özgül, n.d.)

Despite increasing vehicle traffic density, pedestrians could move around freely. There was not any obstacle for them. There was even an openness that enabled people to cross the street easily. There was not a well-planned traffic system with signboards, pedestrian overpasses, or traffic lights.

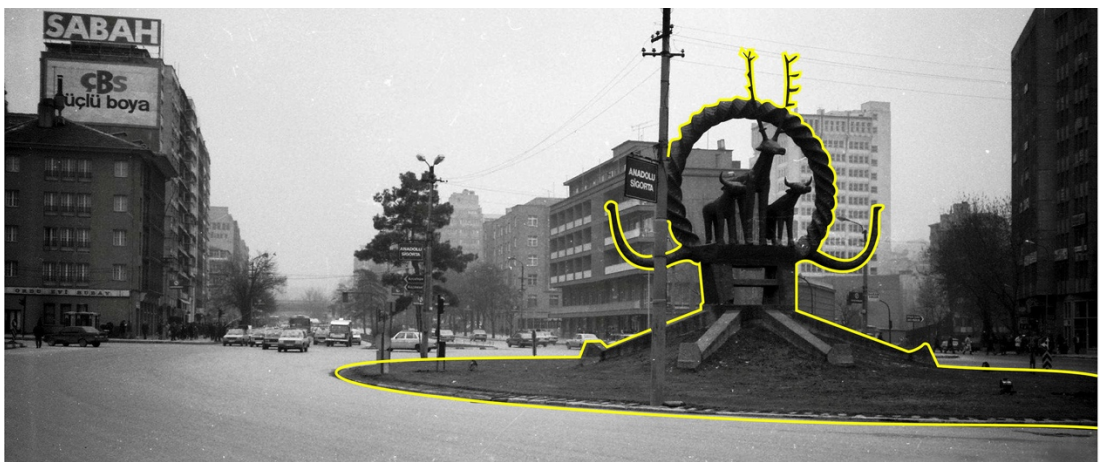


Figure 49. Hittite Sun Course Monument (1978) (personal archive of Prof. Dr. Ali Cengizkan)

In the period, a roundabout was a convenient solution. The main junction of the roads turned into a landmark with Hittite Sun Course Monument. Before the monument was located there, Nereid Fountain had been placed at the place for a short time (Duyan, 2011).

5.1.4. 1980-2000 period: Sıhhiye as a landmark

While the region lost its octagonal form, it was seen that many of its components changed at the same time. As it is also observable in the figure 50 vehicle traffic was more intense in the 1980s. A main road which was connected to Celal Bayar Boulevard and some other connection roads were closed on those days. There was only a dual carriageway with three lines and a roundabout. Pedestrian priority had been lost and pavements almost disappeared. Crosswalks provided a necessary connection from traces of closed road (Abdi İpekçi Park) to the other side. People walked longer distances to reach the crosswalk, and it seems that Sıhhiye was no longer an accessible place for pedestrians as it used to be in 1920s and 1960s.

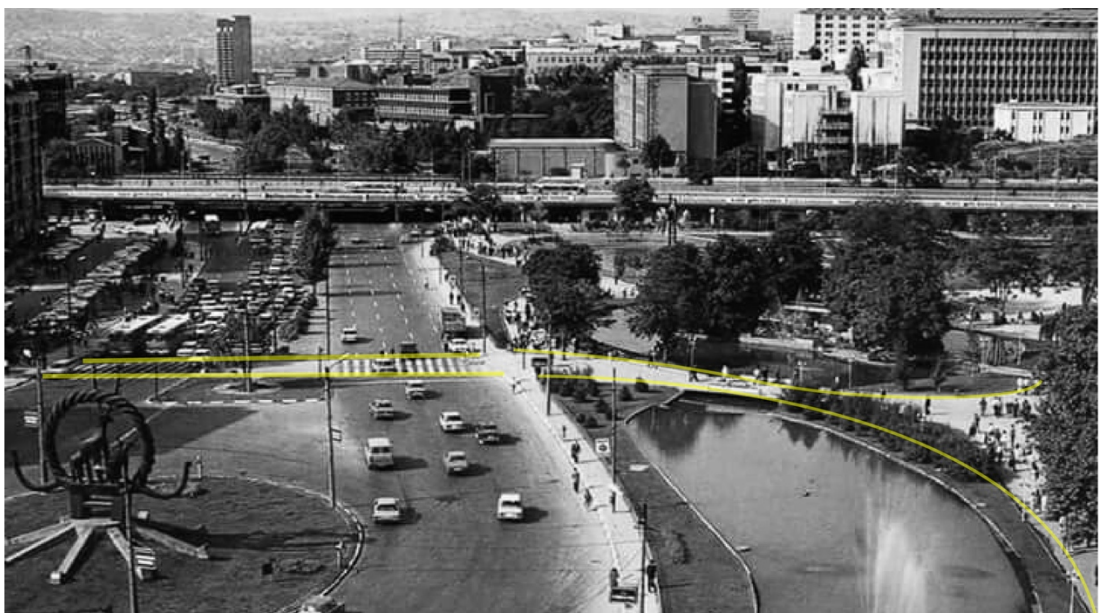


Figure 50. A View from Ministry Towards to Ulus (1980's) (Karatekin, 2014)

The square was surrounded by daily used buildings, which provided a clue for the high population density of the area. The rush hours probably depended on working hours even in the 1980s. There was a high number of busses available in the square at the same iatime during those years. The reason for this was probably not the population of the region but its location, because it was still at the intersection for both pedestrians and vehicle transportation.



Figure 51. Abdi İpekçi Park (1980s)

(Personal archive of Prof. Dr. Ali Cengizkan)

Abdi İpekçi Park was established in 1981. Firstly, huge pools drew attention. As can be estimated, it became even more difficult to move around the park due to the size of the pool. Additionally, the water component evoked İncesu Stream because there was a green axis which completed the stream. Although the stream was covered and the natural water source became invisible, there was an attempt to restore the existing green axis via green areas and artificial pools. It acted like an oasis in the middle of the concrete city.



Figure 52. Hands (Eller) Monument in Abdi İpekçi Park (1980's)

(Antoloji Ankara, 2021)

There were also some artistic touches at different parts of the square. The Hands (Eller) Sculpture is one of them, and it was made in 1979 by Metin Yurdanur (Sıhhiye'deki Abdi İpekçi Parkı'nda Bulunan Eller Heykeli, n.d.). A street vendor and an officer seen in the photograph confirms that the place was the meeting point of people from different socio-cultural backgrounds.



Figure 53. A View from Kent Hotel
(personal archive of Prof. Dr. Baykan Günay)

In general view, there is not balanced solid void relation between the east and the west side, which results from the unbalanced structuring between enclosing multistorey buildings and urban void (park) which share the square opposing one another. It is this unbalanced structuring that causes the perception of square to vanish. In addition to that, the axis of roads was changed to being curled to some extent, bending a little bit and this made the road look like an ordinary urban road, contributing to the lost sense that might suggest that it is a square.

5.1.5. 2000s: Sıhhiye as a hub

In the 2000s, it was only the roads and bridges which were still standing. There is now no such an understanding of “boulevard” of the old times. This is because of the fact that

boulevard is now mostly defined as a wide road in a city, a broad, often landscaped thoroughfare (Boulevard, n.d.). The square became a place for the transportation of the vehicles only. Any planned landscape elements and suitable spaces for pedestrians are not observable now. Likewise, vehicles cannot access anywhere in the square as well. They have to pass through the site directly. It is regarded as a place facilitating the flow of traffic without enabling communication with the environment.

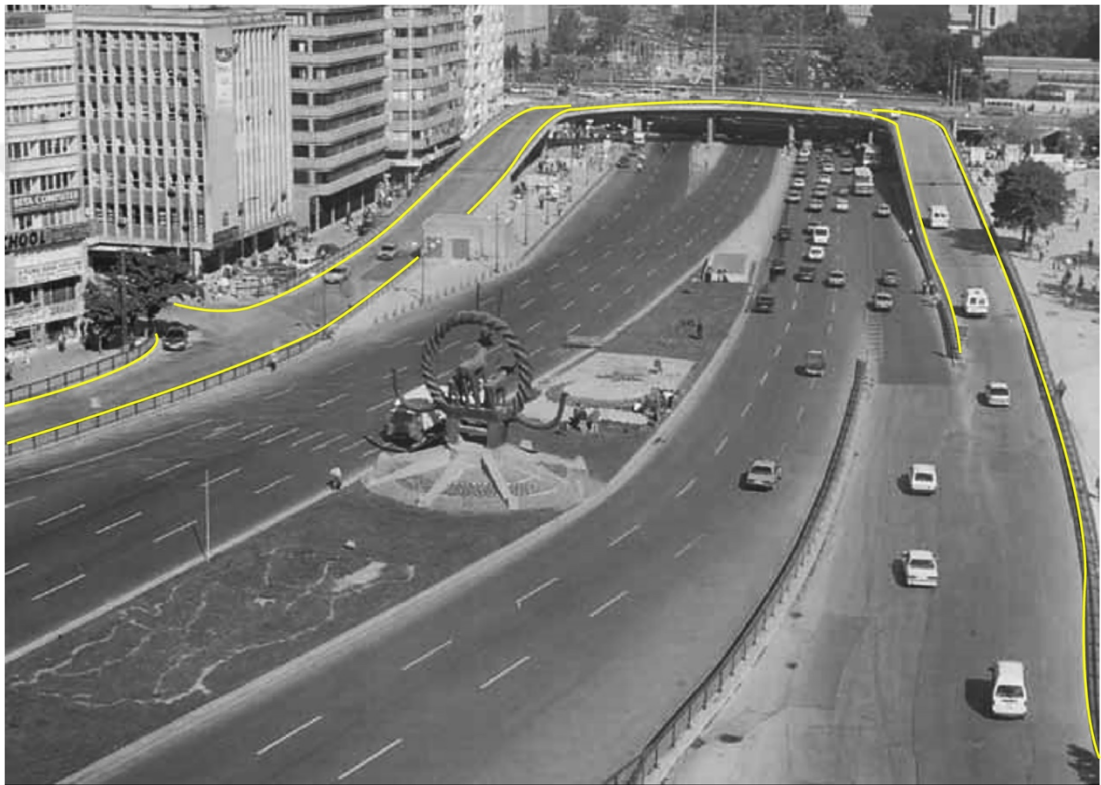


Figure 54. U-Turn Bridge (2002) (Arcayürek, 2005)

The most obvious element that is the same with the past is Hittite Sun Course Monument (landmark), even if it has lost its influence to a degree. The physical reason underlying this is the eradication of the roundabout and the dispersal of the focus of the square due to the effect of the U-turn bridge built. From another perspective, this loss of effect can be accounted for likewise: by reason of the fact that Hittite Sun Course was a religious symbol significant for another religion, the sociological value of the monument was aimed to be diminished (Işık, 2005).



Figure 55. Becoming a Multi-Layered Square (Topçu, 2021)

The square became a multi-layered place both physically and intellectually. To begin with, physically, there was only a ground floor and a train bridge. In the photo, there is a direct bridge, a U-turn bridge, a ground floor, a metro tunnel, and a train way bridge (unseen in figure 55). They created a multilayered circulation at different levels and through different directions.



Figure 56. Demonstration at the Site (2003) (Yurdakul, 2022)



Figure 57. Demonstration in the Site (2015) (NTV News, 2015)

The multilayered place included different types of users and applications. Since its function was to connect various points of the city, people come from different districts for different purposes. Its accessibility drew people from every walk of life. Even though people came from different walks of life, the place was sometimes used for creating a common voice through organizations like open-air concerts and meetings held. Such organizations constituted a chance for the atmosphere of a square to be revived for a limited time. Nowadays, gathering in the square is banned.



Figure 58. Aerial Photograph of the Square Before U-Turn Bridge
(Ankara Metropolitan Municipality)



Figure 59. Aerial Photograph of the Square After U-turn Bridge
(Ankara Metropolitan Municipality)

The border (physically) which was created by the bridge had gotten strong, because there was more than one bridge in these years. However, its city gate position remained in the background. Urban form, roads, green places, noise disappeared after crossing the bridge. In a word, there still were traces of entrance but not dominantly.

5.1.6. Evaluation

The square, which was originally planned with as a city gate, have gone through a metamorphosis during the historical processes as shown in figure 60 in terms of urban design, structures, land use, density, and the natural components it was home to. Each factor emerging during the processes has affected the way the place has been perceived; some of these aspects have made it more legible, while others have confused people's cognition of the place. It is not possible to define a constantly changing place visually the same way in everyone's mind; to have it retain how it looks forever. However, there is something that can be stated clearly that the site has landmarks that everyone knows and remain constant, and it is a node which owns many elements that completes the city.

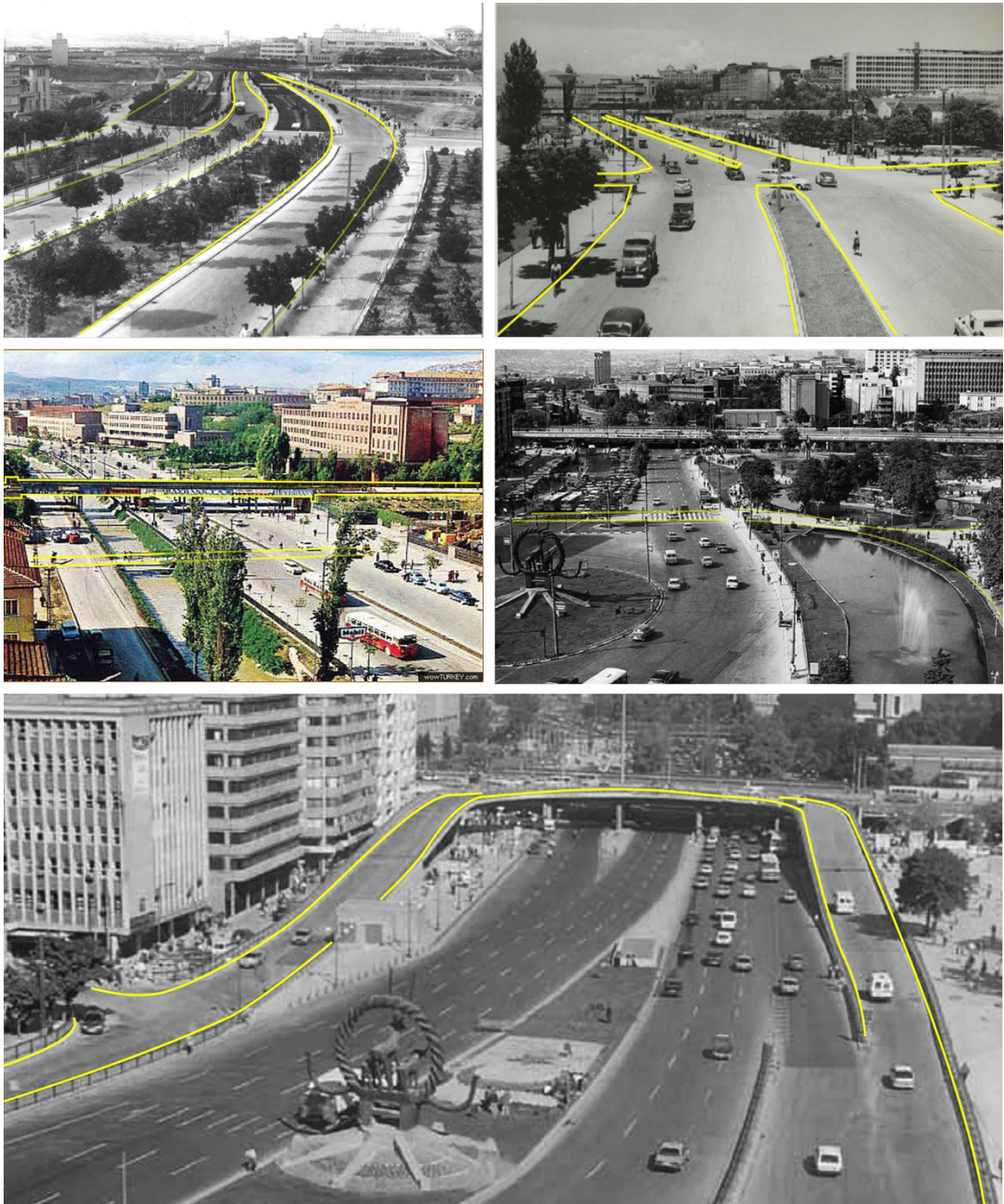


Figure 60. View of the Site from Almost the Same Perspective in Different Years

Examining a period of over a century via photographs, one could note that during the period covering 1940's, 1950's and 1960's, while the surroundings of the urban site was not of high density, it was a simpler and legible area. The effects of "transforming into a republic" is highly sensed in the square due to Ankara being the capital city; the sense may be attributed to the wearing style of the people, the

existence of watchers controlling the flow of vehicles and people, and the renewal of the square planning.

During the years when the open areas of the city like boulevards, crossroads, pedestrian roads, and junctions were clearly visible (till 1980's), the movement behavior in the city was more organized. Urban space and its utilization were specified. Nevertheless, following 2000's, many factors including the layering of the area, the transformation of buildings, the morphological transformation the restriction regarding roaming can be stated to have restricted the square for individuals both physically and psychologically. This restriction has limited the perception of square for the individuals, for which reason, the significance of the square was diminished in terms of the people. The site has transformed into a dynamic space regarding transportation vehicles, ceasing to be a social gathering space facilitating people to interact.

Examining the photos from the given periods, except from the train bridge, Hittite Monument, the building of the Ministry of Health (today facilitated as governor's office) and Abdi İpekçi Park stand out as the stable components of the site. The other components can be observed to have been changing in time. Even the rows of tree and Incesu River have disappeared in time. The changes they have undergone do not only relate to architectural style or infrastructure, but also the utilization. And the architectural transformations can be asserted to also bring about changes in user profile. The reflections regarding the photos indicate that the site has constantly been in a process of evolution.

5.2 Map Reading: Sıhhiye in Ankara Plans

The urban plan of the site has changed over time due to the development of the city, political reasons, and transportation problems. To understand the urban interventions having been carried out in the site up to today, the area in the Ankara plans was examined in four different periods. The plans were examined through being focused on the region, not on the city scale.

5.2.1. Sıhhiye in Lörcher Plan

Carl Ch. Lörcher, who was a German architect, planned many urban places for different districts of Germany. As a person closely involved in politics, he was appointed by the new Turkish government in 1925 to draw the first master plan of Ankara, the heart of Turkish politics, in 1924-1925 (Goethe-Institut Ankara, 2010a). “He proposed a compact city, whereby a new centre was proposed around the central station, and the foundations of New City (Yeni Şehir) were laid” (Günay, 2012). In the plan, Ankara is considered separately as the new and old city, the site is the intersection of old and new (Cengizkan, 2004).



Figure 61. Lörcher Plan of Ankara (1924)
(personal archive of Prof. Dr. Baykan Günay)

Lörcher created a spatial relation with linear planning between the old city center and the new one. In both the new and the old parts, 2 focal points and boulevards can be seen. However, linear planning increased the legibility of the city in general plan.

The new urban form of the city had a focal point which had straight connections to both administrative area and other parts of the city (Cengizkan, 2019). The straight connection of Sıhhiye to administrative area symbolized the transparent, covert structuring of the republic. The linearity was strengthened with radial lines which started from the train station. A new train station was planned for Sıhhiye as a means of transportation. The starting point (source) of the road merged with Cumhuriyet Square (Kızılay Square), stretching to the parliament building. The planning style was highly symbolic. Sıhhiye was contemplated as the perceived gate to Ankara, and it was inferred to be the entrance to the city due to the newly built modern transportation method there, symbolizing the new, reformed Turkish government as well as the power of the government coming from the nation's roots; its rich, traditional culture reflected on urban space (Cengizkan, 2019).



Figure 62. Squares in Close Environment of the Site in Lörcher Plan of Ankara (1924)

(personal archive of Prof. Dr. Baykan Günay)

In this case, Sıhhiye was assumed as a gate (entrance) to Yenişehir. The gate offered four more options besides the direct line to administrative center. The East one of two diagonal roads were connected to the Public Park where Kocatepe Mosque is today. The other one that was planned was connected to Dikmen Area.

According to master plan exhibited in figure 62., the place had a legible octagonal form unlike other squares like Ulus, Kızılay, Zafer etc. The form indicates the transition from a disordered place to a well-planned or designed area where the different diagonal paths were designed to meet at a node. The octagonal node which has four roads with wide green areas offered an equal opportunity to vehicles and pedestrians. The planned area of the boulevard in this period was balanced in terms of solid void relations. Ankara was an up-and-coming city given the relevancy of open places, natural water and built environment. Large parks in different parts of the city and sequential (rhythmically planned) squares on the two main boulevards were planned as defined open places and existing stream beds were preserved.

Sıhhiye Square, Zafer Park, Millet Square (Kızılay), Cumhuriyet Square were layouts for open places for Atatürk Boulevard. There are also traces of the Camillio Sitte, such as thinking in terms of aesthetics and health, the necessity of leaving the city squares empty, the squares being closed and defined, and sequential squares planned (Cengizkan, 2018). In addition, going over the plan, a circular planning with centering Sıhhiye Square can be observed. This circle was divided into regions by diagonal lines and smaller circles like in Paris. Moreover, baroque pattern is noticeable in the plan. Radial roads, triangular divisions, wide boulevard parts were effects of baroque style (Erdoğan, 2006).

5.2.2. Sıhhiye in Jansen Plan

Herman Jansen, who was German like Lörcher, came first in the competition where Ankara's new master plan was voted.

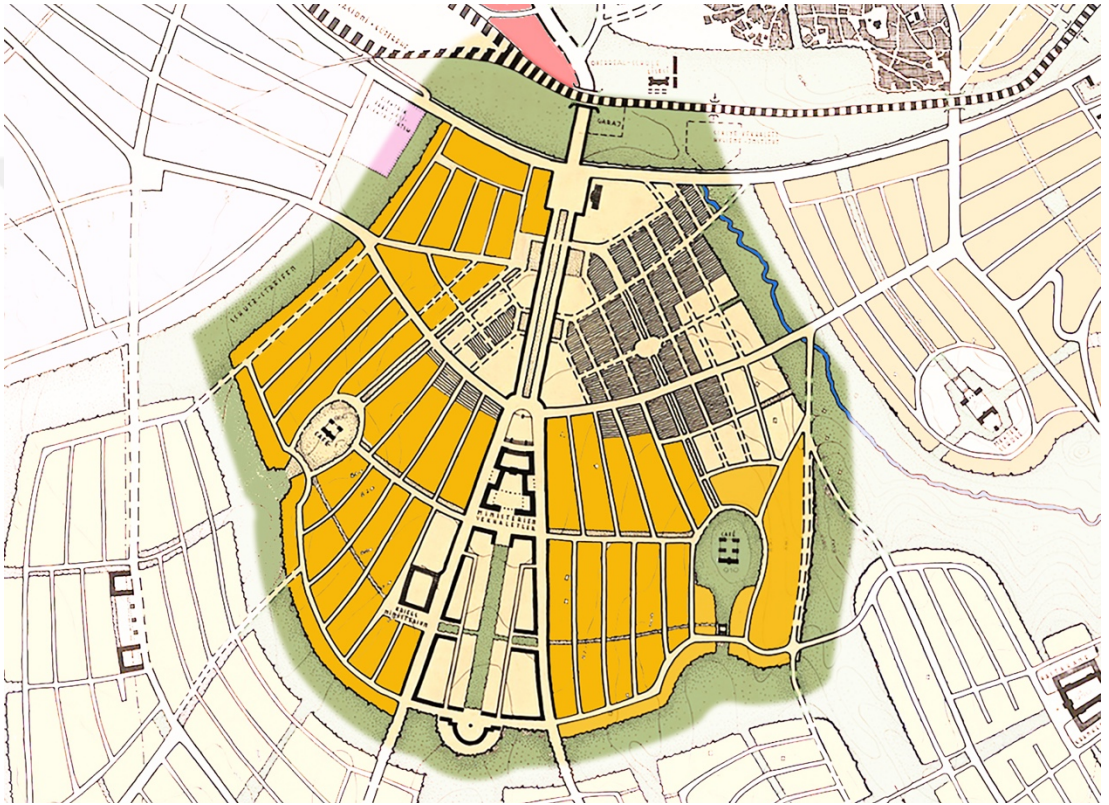


Figure 63. Jansen's Ankara Plan for the Competition

(personal archive of Prof. Dr. Baykan Günay)

The competition plan looks as if it is blocking the radial axis. Although the entrance still starts with train bridge, the form of the place is completely changed. The form became a square instead of an octagon. The main axis separates two sublines, which causes the radial plan to lose its powerful effect. However, some decisions were changed when the plan was to be applied.

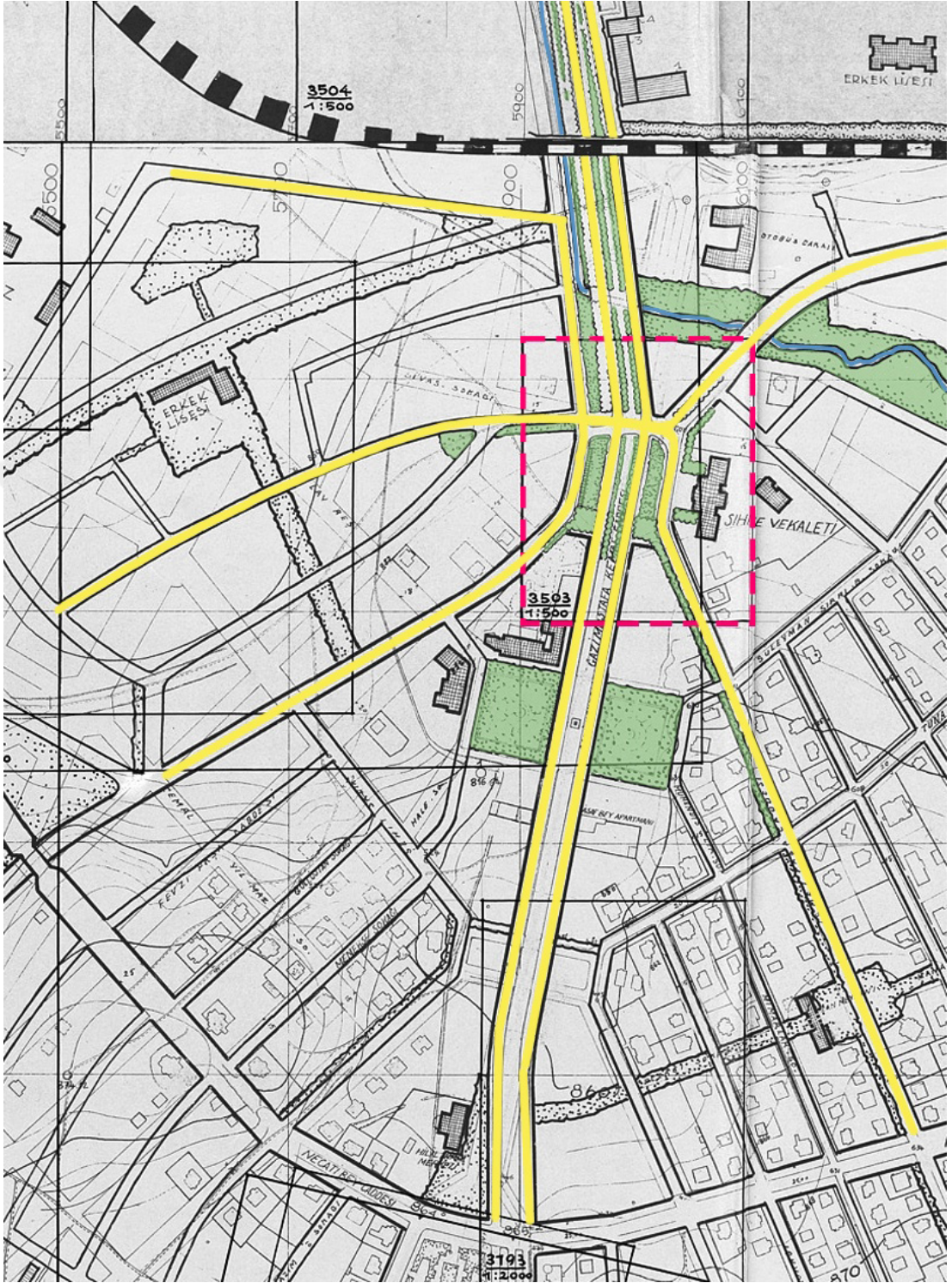


Figure 64. Final Version of Jansen's Ankara Plan

(personal archive of Prof. Dr. Baykan Günay)

Traces from Lörcher’s plan were completely changed on Sıhhiye Square because of the presumption of authorship (Cengizkan, 2019). The legible octagonal urban square with its entrance perception was demolished. In the finalized master plan, the square became an intersection area of the roads with green areas. The “gate perception” was also affected from shifted main axis, because the viewpoint of the people as they were approaching and moving away from the place was changed.

The other change was the symmetrical design of the square. Lörcher divided almost equal blocks to both sides. Jansen gradually distorted the symmetry by relocating roads (goes to east and west) and joining blocks on the side of the Ministry of Health Building.



Figure 65. Aerial photograph of Ankara (1939)

(Cengizkan, 2021).

Green axis had been preserved and even strengthened. İncesu stream was one of the most important components of the axis. However, the decrease in the size of the green space ratio around it in the square reduced its effect.

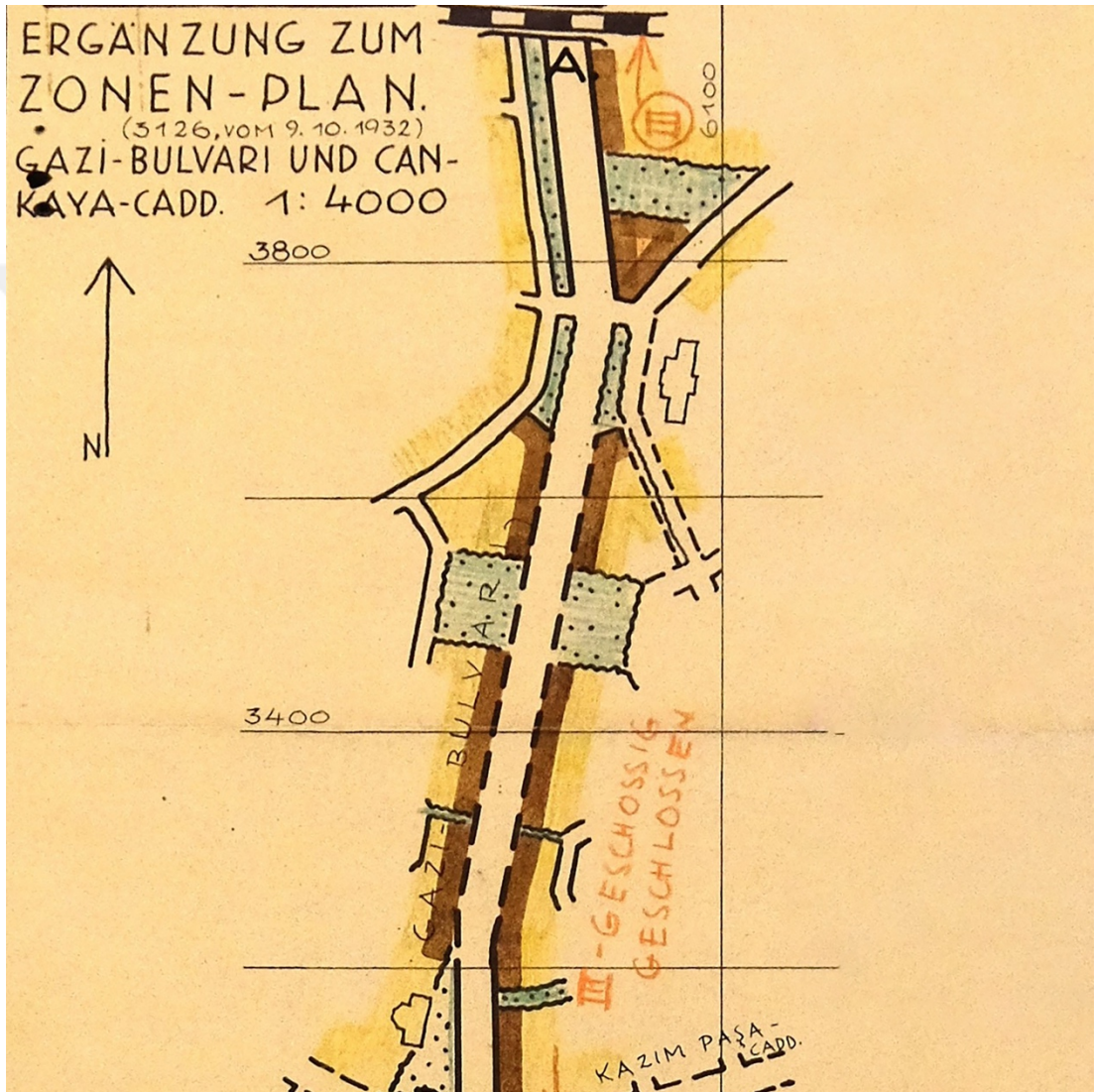


Figure 66. Detailed Drawing of the Road Between Kızılay and Sıhhiye

(personal archive of Prof. Dr. Baykan Günay)

There was a sequential open area (void) to support the boulevard. Planned solid-void relations helped the Sıhhiye Square to become prominent as an entrance point.

5.2.3. Sıhhiye in Uybadin Yücel Plan

Uybadin – Yücel master plan was made in 1955 by Raşit Uybadin and Nihat Yücel.

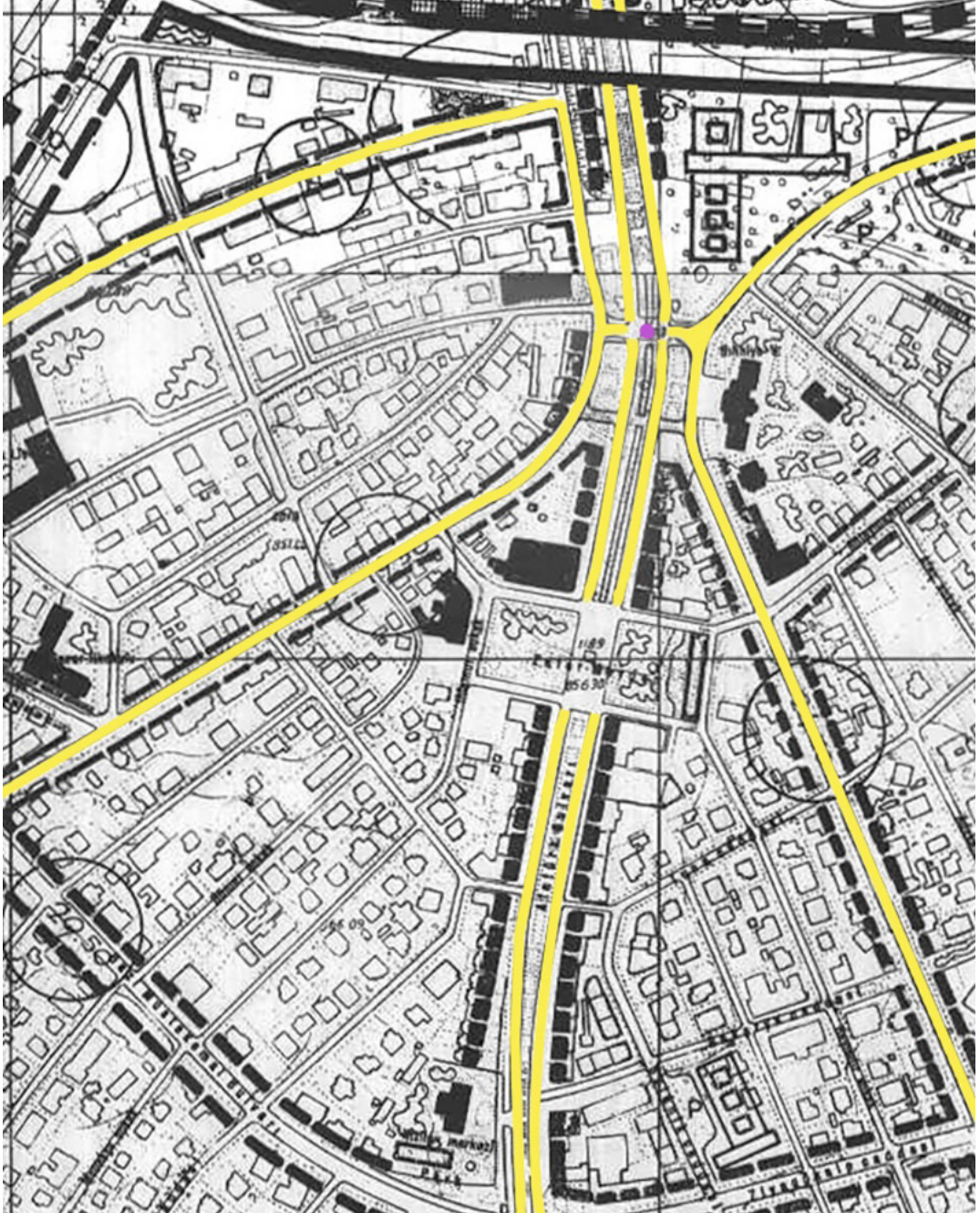


Figure 67. Sıhhiye-Kızılay Region on Uybadin - Yücel Plan
(personal archive of Prof. Dr. Baykan Günay)

Axis shift was accepted to be a normal feature of the region (Cengizkan, 2018). The Sıhhiye square evolved into a form that was difficult to define (not octagon, square or a common form). It started to lose its borders. Besides axis shift, disrupted joint points of roads started to cause a disorder in the square. The area was a well-defined gate and welcoming place. Another reason for losing its legibility is allowing multi-storey construction with this plan led eventually to a total replacement of the urban fabric, where the model contemporary city lost its values in favor of a more chaotic order (Günay, 2012). Its main character could not be seen then.

According to Ankara Master Development Plan report prepared by Raşit Yücel and Nihat Uybadin, the railway should not be thought as a divider between south and north sides of the city. They suggested increasing the number of train lines and lying heavy on transportation by train. The report supported the idea that at the time, the north-south crossings along the railway were sufficient, but in the future the line might be tunneled underground or elevated as a bridge. (Baş Bütüner, F., Alanyalı Aral, E., Çavdar, 2017)

5.2.4. Sıhhiye in 1995 Master Plan

Previous plans did not succeed to reach their aims as they could not be reflected on the site owing to the fact that they could not estimate the rate at which population would grow. 1995 master plan was prepared by The Metropolitan Area Master Plan Bureau (AMAMPB) under the authority of Ministry of Public Works. As a result of long research and studies, a new developmental plan was prepared in 1990.

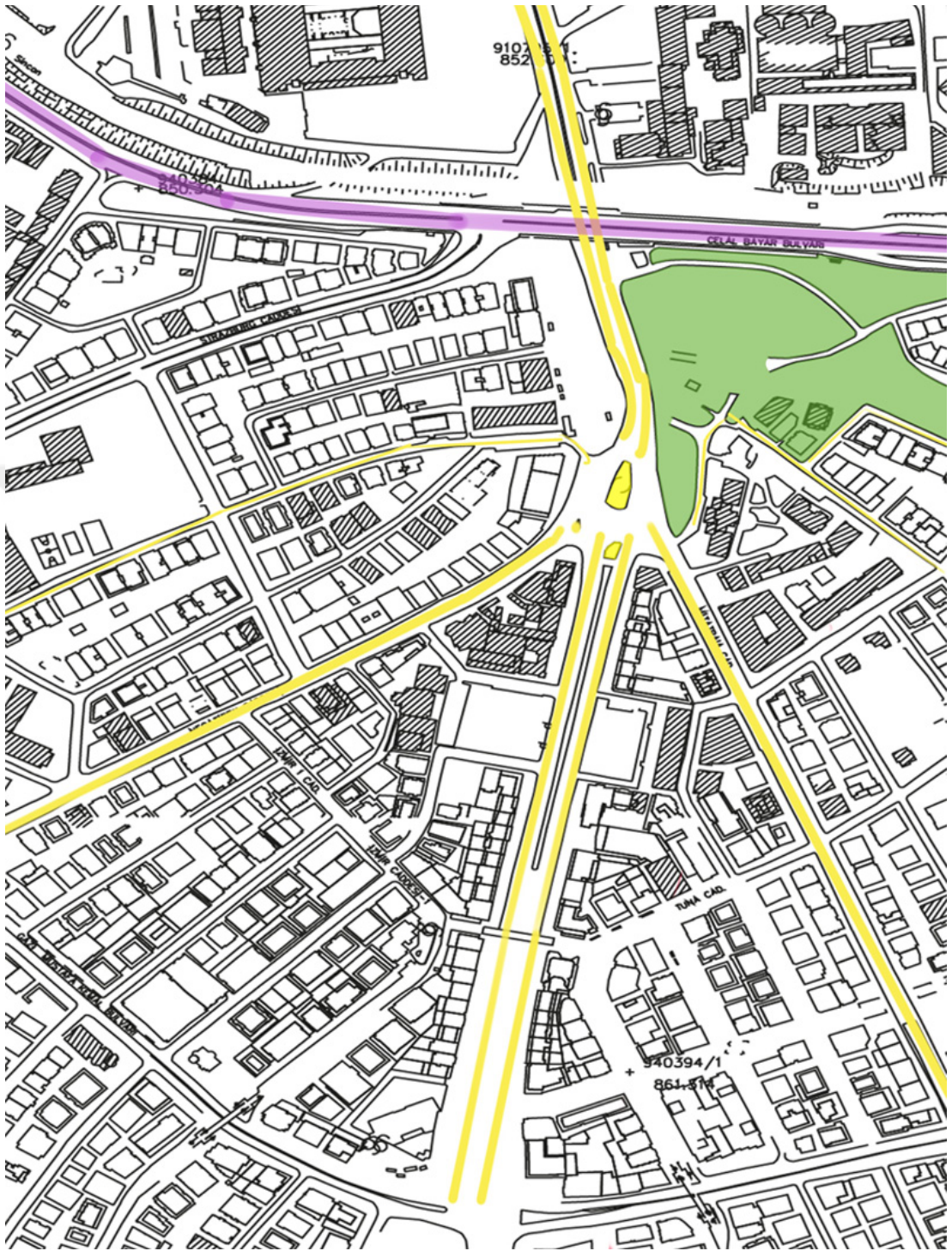


Figure 68. Sıhhiye-Kızılay Region on 1995 Master Plan

(personal archive of Asst Prof Dr. Cansu Canaran)

The square was replanned with a rotary intersection. It was considered to make the area more accessible for increased vehicle traffic. The area which is on right side of the Ministry of Health was defined as a park (Abdi İpekçi Park). The extending part of the park separates the building from the road, acting as a natural separator.

5.2.5. Evaluation

From the first plan to the last one, different approaches were considered and applied on the site. The inconsistent planning strategy made it difficult to maintain the trace for the site. The main reason why it has changed so much since the first plan can be considered as the increase in density of pedestrians and vehicles due to the site being an intersection for the two main axes of the city, namely the east-west side and south-north side.

The only remaining decision from the first plan up to today holding a corner is the building of the ministry of health, (nowadays utilized as the governor's building) designed in baroque style. The changes in the plan decision have caused constant changes regarding the urban form. Approaching towards the present state of the plan, the morphological density has risen and has become harder to read. The defined octagonal square is nowadays recognized as a part of a boulevard with no unified shape. The area assigned for vehicular traffic increasing makes the area hard to read as a square, it is getting more recognizable as a motorway when the plans are scrutinized.

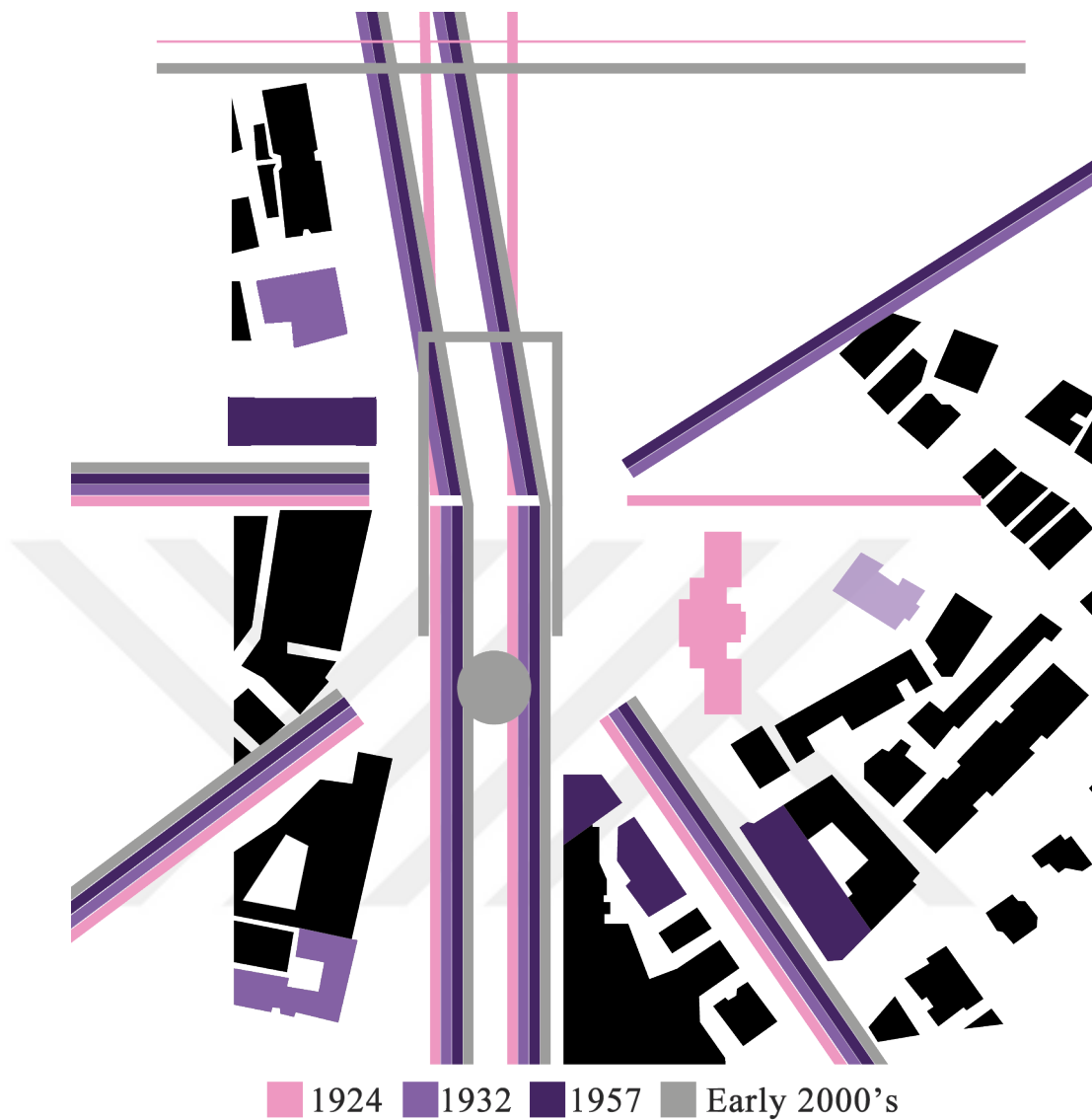


Figure 69. an Abstract Interpretation of Plan Interventions (The Author)

The square, although almost retaining its size today, has lost its form and plan, appearing to be smaller in size.

Because the square constitutes a junction for both the city and its close surroundings, it would turn out better to make some arrangements at small and large scales via the regulations to be implemented in the years to follow.

5.3 A morphological analysis of pedestrian movement in Sıhhiye: Space Syntax Analysis

The final analysis before carrying out spatial reading on Sıhhiye is defined as space syntax analysis, a computer-based spatial analysis. Since there is a direct relationship between spatial properties and social structure, this method measures the potential to bring people together randomly in open urban spaces by overlapping the fields of movement and vision. The space syntax, proposed as a computational language for describing the spatial patterns of cities, refers to relationships between different spaces or interactions between spatial properties and society (Hillier & Hanson, 1984). The method advocates the assumption that spatial logic or structure has a strong effect on human activities.



Figure 70. Figure-Ground Map of the Area (The Author)

Figure-ground map is produced to be able to understand the basics of spatial configuration in Sıhhiye. Figure-ground diagram of Sıhhiye region indicates different solid-void relations. While the side of old city is unordered in terms of void relations, Yenişehir has a balanced urban pattern. The threshold of the change is the place where the Sıhhiye Bridge and Abdi İpekçi Park meet.

In this section, to obtain configurational analysis of chosen urban area, DepthMap, which is an open-source software to analyze syntactic analysis of architecture and urban plans, was applied. The analyses of the site plan which were produced by the software will be examined.

5.3.1. Axial Map of the Site

Axial map is defined in the glossary of space syntax website as something that is constructed by taking an accurate map and drawing a set of intersecting lines through all the spaces of the urban grid so that the grid is covered and all rings of circulation are completed (Axial Map, n.d.). Axial maps provide the researcher with an opportunity to describe the space via basic lines, also they are the bases of more analyses such as integration, connectivity, intelligibility.

People always prefer to walk in linear space such as corridors, streets, boulevards to minimize the distance. Linear spaces (straight lines) can be called as potential movement behavior and represented by axial lines. Consequently, axial lines demonstrate urban form, movement behavior and spatial cognition in a simplified way (Long, Baran, & Moore, 2007). Axial lines do not have any units of measurement. It is a comparative measurement system. In other words, it analyzes the relations of drawn axes to each other. Axial lines are drawn at eye level. Hence, only eye level layer (ground floor of the site) is analyzed. There are, therefore, two

options to create an axial lines map. The first one is to draw the maps manually, which does not always produce a consistent result in analysis. This is mainly because of the subjectivity of the method. In this method, each analysis may choose different starting and ending points of straight lines. For more objective results, creating an axial line map via DepthMap in an automatical way, which is a feature of the utilized software, is preferred in the thesis.

The first step was importing Sihhiye plan (Ankara Metropolitan Municipality, 2020 June) to the program and running the analysis. Axial map of the site shown in figure 71 was generated automatically via DepthMap.



Figure 71. Axial Map Created with Depthmap (all-line) (The Author)

A huge number of lines which show / represent possible straight lines were created automatically by the program. Lines are colored from red to blue in a way that from the point where they are in the longest visibility range to the shorter. It is seen that most of the intersections in the longest visibility range are in the middle of the square.



Figure 72. Axial Line of Sihhiye Region (fewest line) (The Author)

Then, the lines were minimized utilizing the program. On the axial map where the lines were reduced, it can be noted that the square is a place where highest range of visibility lines are intersected. Hence, it is understood that the place has a potential for long distance movement in its entirety. The axial line map was used for creating connectivity and integration analysis as the base.

5.3.2. Connectivity Analysis

According to Hillier and Hanson, “connectivity analysis measures the number of spaces immediately connecting a space of origin” (Hillier & Hanson, 1984). Connectivity map was automatically generated by selecting the connectivity option over the map and running the analysis in the software.

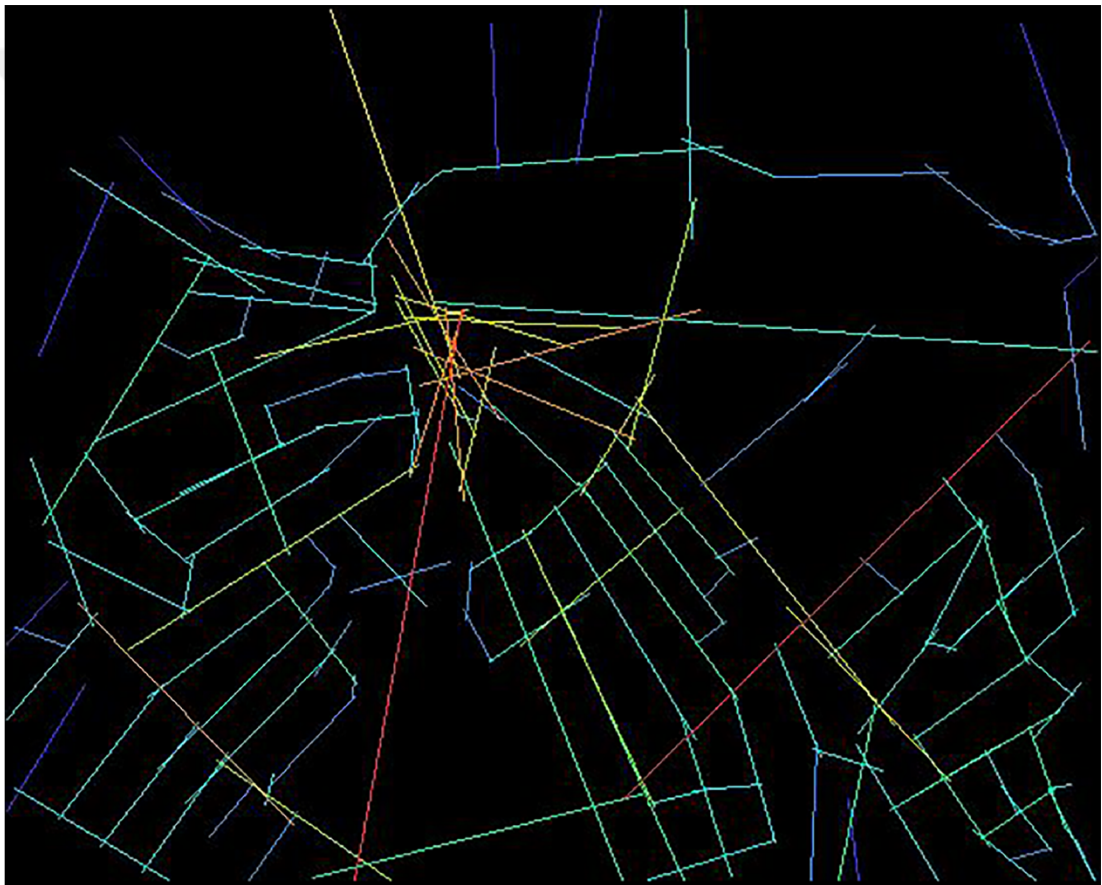


Figure 73. Connectivity Analysis of Sihhiye Square (The Author)

Connectivity analysis shows the connection of the linear lines of the site. Connectivity values measure the number of intersecting points of streets and boulevards. The analyses do not only focus on the intersections, but they also include all links between streets. Most intersected points are considered as the most

accessible areas of the site. To interpret, high values indicate strong connections, while low values indicate poor connections. In this case, the square has strong connections to Abdi İpekçi Park and the boulevard that extends along Kızılay Square.

Table 2
Connectivity Analysis Key Values

Count	154
Minimum Value	0
Maximum Value	15
Average Value	4.45455

Table 2

According to the connectivity map, red lines intersect 15 other lines. While the color turns to blue, the intersection number decreases to 0 (table 2), which means that interconnection rate of the roads decreases.

It is noticed from the analysis that the part of Atatürk Boulevard between Sıhhiye Square and Kızılay Square, and a part of Ziya Gökalp Street are the most connected lines at the site. The high frequency of the connections put forward that people are most likely to prefer to go past the related area. Secondly, highest number of connections are seen between Abdi İpekçi Park and Sıhhiye Square, as expected. However, considering the daily visits paid to the park (not preferred by people according to observation), it can be thought that the park suffers from problems resulting from security, obstacles, design problems etc.

Interestingly, Necatibey Street and Mithatpaşa Street are shown as the main roads whereas their connectivity measurements almost equal those of minor streets. When

comparing the connections of these two roads specially to plan of Jansen, the connectivity value could be higher because they were in direct connection with other highways of the city. Even though they are currently defined as the main roads, they almost have the same preference rate as that of a small street in terms of connectivity.

5.3.3. Integration Analysis

According to space syntax, glossary integration means a normalized measure of distance from a space of origin to all others in a system, and it calculates how close the origin space is to all other spaces, and it can be considered as the measure of relative asymmetry (or relative depth) (Integration, n.d.).

Integration analysis is used for the detection of integrated points. The spaces of a system can be sorted from the most integrated ones to the most separated (El-Agouri, 2004). Integrated spaces have potential to bring together all the people who live or spend time in a place for any reason (Hillier & Hanson, 1984). The most integrated streets can be considered as the integrated core of a settlement in the context of the movement. Integration analysis has two categories as global and local. Local integration is defined as integration values of axial lines at the radius 3 (root plus two topological steps from the root), which can be used to represent a localized picture of integration (Hillier, 2007). For global integration, infinite radius ($r=n$) is taken for each line and the integration value of the line is examined within the whole system.

The pattern of the most integrated and segregated spaces within the site can be seen on integration maps. Color ranges from red to blue defines crossing from 'integrated' to 'segregated' areas for both local and global integration analysis.

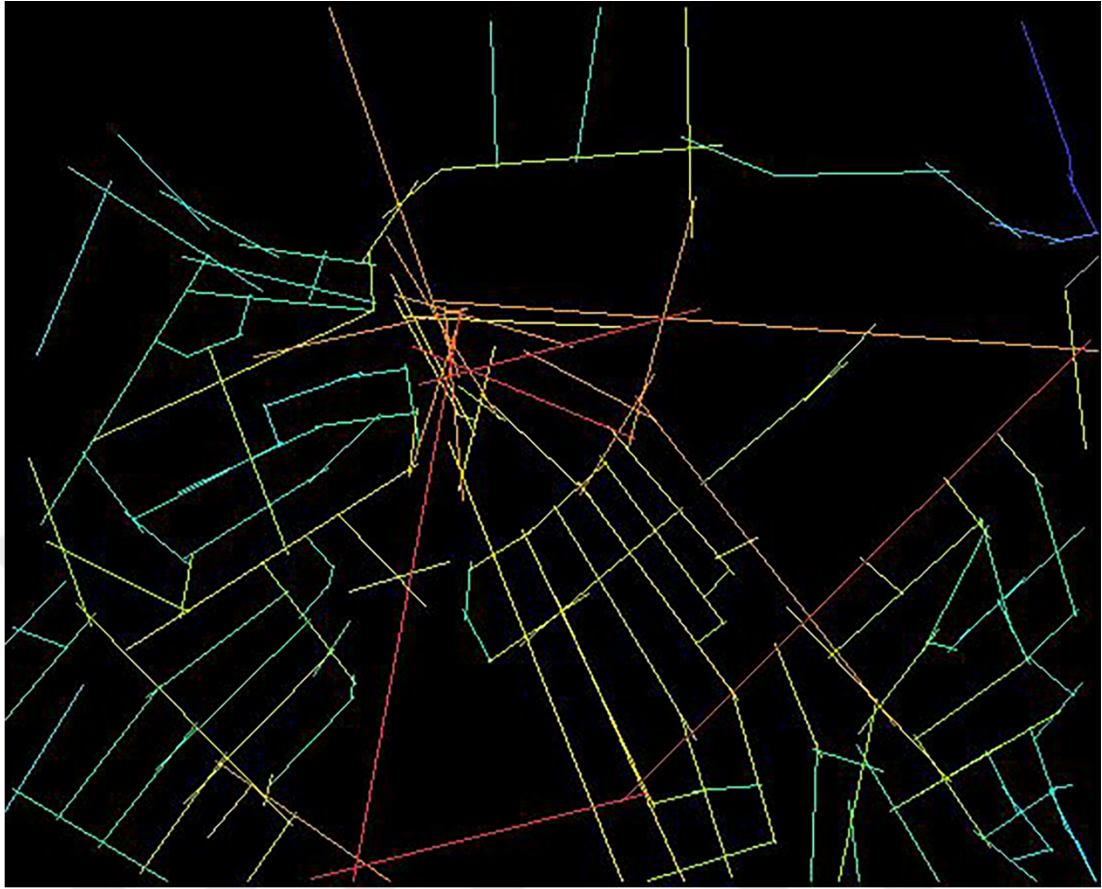


Figure 74. Global Integration Analysis (r=n) (The Author)

Table 3

Global Integration Analysis Key Values

Average Value	1.19976
Minimum Value	0.433503
Maximum Value	1.89643
Count	153

Table 3

Global integration analysis seen in figure 74 shows that Abdi İpekçi Park, Ziya Gökalp Street and Atatürk Boulevard are the most integrated spaces of the site. There stand two axial lines which are red, which means there is a positive potential for

them to be a popular public space in Abdi İpekçi park. Therefore, the park can be called as an integrated core for the region according to the analysis map. As the analysis show, it has a great potential to gather people in the periphery.

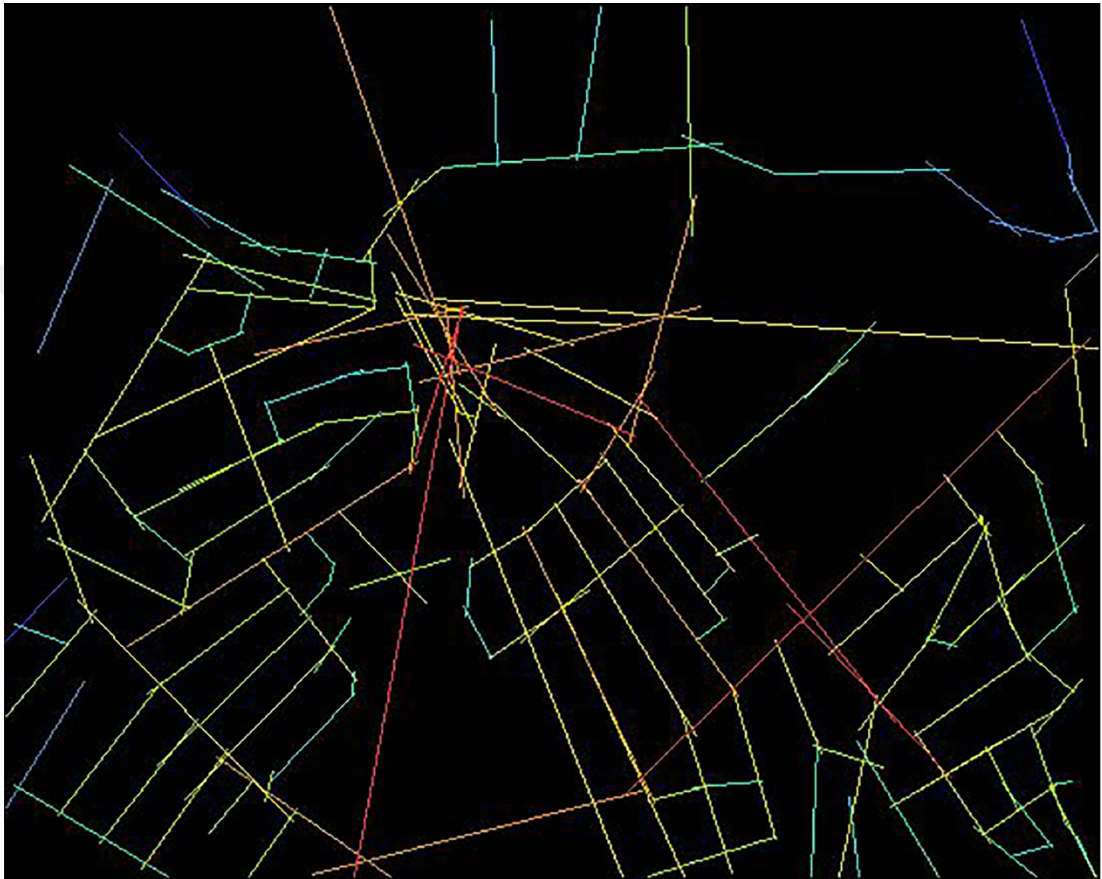


Figure 75. Local Integration Analysis ($r=3$) (The Author)

Table 4

Local Integration Analysis Key Values

Average Value	1.86114
Minimum Value	0.333333
Maximum Value	3.08257
Count	153

Table 4

Although the most integrated places are almost the same, the importance of other streets have increased in local analysis. The change is comprehensible upon the analysis of both colors and average values. The average value increased from 1.19976 (global) to 1.86114 (local) as can be realized on table 4.

Consequently, according to integration and connectivity analysis, Abdi İpekçi Park has a potential to being a core as it connects different streets with many options. The situation is measured with the help of a computer program. The Park allows people to move to different directions and provides a better spatial cognition.

5.3.4. Evaluation

Space syntax analysis (connectivity and integration) helps to understand existing spatial cognitions. In short, the connection of the square to the Kızılay Square has a strong relation according to connectivity and integration analyses. Therefore, the intention of the region's first plan is still preserved. The cognition of the square is not symmetrical since the northern side of the site has higher integration values than the south. Abdi İpekçi park can be defined as the place with the greatest potential for people to come together. This may have reduced node properties of the square. Nowadays, due to the change in the flow of people from Ulus towards Sıhhiye, their direction has been shifted from Atatürk Boulevard to Mithatpaşa Street because the square has diminished its feature of gathering people in the park. It is presumable that Atatürk Boulevard has become less active while Mithatpaşa street has transformed into a more outstanding destination directing people towards Kocatepe Mosque, making its surrounding area more popular, attractive. According to the findings of the space syntax analysis, this public area which has high potential for interaction with its surroundings can be transformed into a square where the citizens gather to spend time, they prefer to spend time and movement behavior is controlled.

CHAPTER 6

CONCLUSION

Spatial reading was studied via a set of multidisciplinary analyses. The site, which includes different inputs related with function, user profile, architectural approach, and planning, was chosen to be scrutinized. Reading the site through many inputs from different perspectives brought out various features of the region. Through the implementation of three respective reading methods on the site, the study gathered insights into the perception of the place on its own and the people's perception of it. Moreover, it probed inferences regarding the relation between them; and this way, it endeavored to explain the interaction among the physical, sociological, psychological, and spatial dimensions of the multilayered site.

The site, which was planned as the gate to Yenişehir after Ankara became the capital, was perceived to embed the spatial features of “a gate”, which was clearly observable in the photographs (see 5.1.1) of the Early Republic Period as well as in the first plan by Lörcher (see 5.2.1). The region was well defined for the people as in the urban plan in early years. As a part of the boulevard, the square had strong communication with people. However, it can be stated that the site started to lose its characteristics as a defined area and evolved to become an ordinary part of the city due to the spatial arrangements made to speed up traffic owing to the effect of increasing population and technology during the following years. The change was reflected on both the intervention plans and the photographs of the same periods simultaneously. For instance, the main road in the square is observed to have constantly been changing, and the relation between vehicular movement and pedestrian circulation is observed to have embedded a different dimension where pedestrian circulation has been disregarded. Towards the present time, it has been

seen that the vehicular road has been widened, and instead of a planning with a roundabout that would facilitate flexible vehicular movement, a system based on the direct pass of vehicles has been implemented as can be deduced from chapter 5.2., which involves map-reading. Similarly, the effects having been caused by the design of the road based on the plan of 1995 that has facilitated pedestrian circulation only on one side of the road, limiting pedestrians to cross to the other side of it and deterring them from reaching the places such as green areas such as Abdi İpekçi Park, many shops scattered on the side of the road and transportation points that they need to reach so as to use various means of transportation can be observed in the photos of the site that were taken in 2000's (see figures 55,59). In line with the results set forth by space-syntax analysis, the site limited to pedestrian circulation may be revived through the implementation of a new plan that would be designed to facilitate both vehicular and pedestrian circulation hand in hand.

Since 1970s, when the change in the area is examined through a chronological perspective, it can be realized that there have been differences occurring between the master plans and the way these plans were put into practice concerning the way the area has been utilized in daily use. Possibly, non-routine movement around the site have had effects on this. The comparison of the outputs acquired through photograph and map reading regarding all periods has shown that the utilization of the node (different parts of city intersect) is increasing day by day, there are changes with respect to the user profile and urban functions it serves hand in hand with the increase regarding its utilization. However, Sıhhiye Square continues to be a place that is always known and used intensively due to its location. Abdi İpekçi Park is also a gathering point according to integration analysis. Therefore, it can be asserted that urban rhythm is fast at the site due to the density of use, and the location of the site is at the heart of the significant changes that occur.

Despite of alteration, the site partially preserves its feature of being a gate and subcenter compared to its first years as can be realized from photograph analysis and

map reading. However, the overlapping of many functions it bears leads to confusion. At the same time, considering the space syntax outputs, the area has the potential to become pedestrian friendly, which is almost impossible regarding its current situation, which is due to the existence of obstacles such as barriers handicapping the use of the area by pedestrians. In addition, in terms of transportation, it can be considered not only as a hub, but also as a place where the city and citizens can have breathing space, thanks to the solid-void relation it has. Despite the many changes it has undergone till today (2021), it is possible to experience the traces of the past. For instance, it is a significant landmark for the city, the Hittite Monument still maintains its importance both spatially and in terms of the memories it embraces.



Figure 76. Sıhhiye Square in 2008 (personal archive of Prof. Dr. Baykan Günay)



Figure 77. Sıhhiye Square in 2021 (The Author)

While working on the region, the ministry of health, which had a great influence on the name, Sihhiye, was moved to another place and the governorship was replaced. Related with landmark, this may be a sign that Ankara will be remembered as a place to re-enter the city, since it is the ancient city symbol of the Hittite monument.



Figure 78. Sihhiye Square at 1960's
(Ergir, 2013)



Figure 79. Sihhiye Square at 2013
(Ergir, 2013)



Figure 80. Transformation of the Site from Ministry of Health Building to Etibank
(The Author)

Another example to the changes is that the overpasses that cause accessibility problems and cannot be utilized by pedestrians have been removed. Huge pools

which make it difficult for pedestrians to reach the place and cause hygiene problems with regard to the site have been reduced. The shrinking of the Abdi İpekçi Park and the limitation of the land facilitating peoples' circulation have caused the artificial pool to be shrunk as well, which led the people to opt for the site as both a destination for stroll and a gathering and meeting point, which proves the finding of the integration and connectivity analysis that proposes the fact that the site of Abdi İpekçi Park is the area which is expected to be preferred to be utilized most frequently.

As it can be understood from the analyses, Sihhiye Square is a place that changes rapidly, and it has undergone many changes even during this study. The site constantly reproduces itself, but this reduces the permanence and imposes a negative impact on urban memory. Because, during its interminable state of metamorphosis, all the components of the site have been changing from different perspectives. For this reason, many people cannot identify Sihhiye Square even though they know and use it.

The reflection of the site on the people affects its own perception and reflects it back on the people, which is the result of social production of public space. In line with the findings of photograph analysis and map reading, although the size of the square has almost been retained, the emergence of several reasons such as the multi-variety in land-use and its user profile has deterred the unity of the site, which has caused confusion. This confusion has caused the site to be perceived not as a whole but in small segments of the whole, which is also reflected in the misconception that the site is a small piece of land. The comparison of this outcome with the outcomes of space syntax analysis, the shift of size perception from vast to small as well as peoples' new orientation towards Abdi İpekçi Park rather than the center instead of being proportionately distributed on the site may be attributed to the shift of the axis. The physical transformation of the place can be considered to have been being reflected on the perceptual transformation.

To sum up, the thesis has set forth that an urban place can be spatially read through the employment of several methods simultaneously, and that each method can bring out distinctive findings which can collaboratively contribute to reaching a unified conclusion. Moreover, the thesis has put forward that the transformation of an urban place into an ambiguous space can be reasoned through the exploration of its transformation through the application of certain methods, and that propositions regarding how the amorphous form may be reversed can be suggested.

Sıhhiye, as a physical site, constitutes a quintessence for places born into a perfect coherence, then evolving into an amorphous incoherence due to the incompatibility of the synchronies within a whole diachrony.

Both urban and sociological analyses show that the site has been challenging to preserve its own identity and value thanks to the stationary statues and structures it has retained. Sıhhiye Square, which contains elements related with the past and the present, can be re-planned in a way that it will both preserve its heritage and respond to citizen's needs, retaining; and even increasing its easily perceived spatial identity.

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