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

AN EVALUATION OF CONSERVATION AND REHABILITATION STUDIES IN HISTORICAL AREAS WITHIN THE SCOPE OF RESILIENCE: CASE OF HAMAMÖNÜ AREA IN ANKARA

MASTER OF ARCHITECTURE

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ABSTRACT

Master of Architecture

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In today's developing and globalizing world, cities and societies encounter unexpectedly variable problems such as energy problems, sudden migrations, epidemics and pandemics, global and local economic crises, and ecological change. One of the most current and fundamental concepts that have been developed against these problems in the modern era is 'resilience.' The concept of resilience, in general, is the holistic evaluation of a system and its layers in the idea beyond sustainability. When multi-layer urban systems are considered as chain systems consisting of different sub-units, the whole system is in a strong position as the rings' weakest link in its sub-units. A disregarded vulnerable link can cause the collapse of the entire system, and the same resilience principles apply to multilayered cities. Resilience is a holistic evaluation of the multilayered system parameters such as demographic, economic, ecological, infrastructural, and structural. Against this variety of threats, it is nearly impossible to protect each layer and functional elements separately. At this point, resilience comes into play as an integrated protection and maintenance mechanism. Many approaches have been developed on resilience in the studies on the holistic protection and maintenance of the system. RELi and CRI, two of the most comprehensive of these will be discussed in this study to examine resilience assessments in the historical areas through the case of Hamamönü in Ankara.

In Turkey, the concept of resilience is comparatively new that is considered within sustainability. The case of Ankara, which is envisaged to be handled within the scope of this study, is a notable example of examining heritage conservation and heritage tourism within the framework of resilience. Ankara is not only the capital of the Turkish Republic and the first witness of the emerging democracy as it began here, but it also hosted and contains the heritage of the ancient cultures of mainly the Hittite, Phrygian, Roman, Byzantine, Seljuk, and Ottoman civilizations to the present. It is aimed to study the resilience of the historical areas in the case of the Ulus region in Ankara, where multiple cultural layers exist together. Several issues have been seen such as over-population, traffic, developments in the economic and ecological lives brought by the capital identity in Ankara. Hamamönü neighborhood, chosen as the thesis area, is an important cultural point in the old city center. After the rehabilitation interventions carried out in the Hamamönü region in 2009, large-scale economic, demographic, structural and infrastructural changes occurred in the region. In order to understand the resilience capacity of the Hamamönü sample, the economic, structural, historical, demographic and infrastructural, administrative layers of the region were examined, and data were collected through site analyses, oral surveys through in-person interviews and GIS measurements. The collected data were evaluated in the context of the CRI and RELi 2.0 resilience scales and various suggestions are developed. It is believed to be critical in creating a roadmap for what can be done in the future related to the protection of cultural heritage in Ankara. This thesis titled 'An Evaluation of Conservation and Rehabilitation Works in Historical Areas in the Scope of Resilience: The Case of Ankara Hamamönü' aims to examine the resilience levels of the conservation sites that are planned to be protected against unexpected crises and related changes after their rehabilitation.

Keywords: Resilience, urban conservation, rehabilitation, Hamamönü, Ankara.

ÖZET

Mimarlık Yüksek Lisans Tezi

TARİHİ ALANLARDA KORUMA VE REHABİLİTASYON ÇALIŞMALARININ DİRENÇLİLİK KAPSAMINDA DEĞERLENDİRİLMESİ: ANKARA HAMAMÖNÜ ÖRNEĞİ

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Gelişen ve küreselleşen günümüz dünyasında kentler ve toplumlar enerji sorunları, ani göçler, salgın hastalıklar ve pandemiler, küresel ve yerel ekonomik krizler, ekolojik değişim gibi beklenmedik şekilde gelişen çeşitli ölçeklerde sorunlarla karşılaşmaktadır. İçinde bulunduğumuz yüzyılda bu sorunlara karşı geliştirilen en güncel ve temel yaklaşımlardan biri 'dirençlilik' kavramıdır. Dirençlilik kavramı, genel olarak, bir sistemin ve katmanlarının sürdürülebilirliğinin ötesinde bütüncül olarak değerlendirilmesidir. Çok katmanlı kentsel sistemler, farklı alt birimlerden oluşan zincir sistemler olarak düşünüldüğünde, tüm sistem kendi alt birimlerindeki halkalardan en zayıf olanı kadar güçlüdür. Göz ardı edilen bir savunmasız bağlantı, tüm sistemin çökmesine neden olabilir ve aynı esneklik ilkeleri çok katmanlı şehir sistemleri için de geçerli kabul edilebilir. Bu noktada dirençlilik; çok katmanlı kent sistemlerinin demografik, ekonomik, ekolojik, altyapısal ve yapısal gibi alt parametrelerinin bütüncül olarak ele alındığı bir değerlendirme mekanizması olarak işlevselleşmektedir. Çünkü kent hayatına karşı ortaya çıkan bu tehditlere karşı şehirlerin her bir katmanının ayrı korunması neredeyse imkansızdır ve bu noktada

dirençlilik, bütünleşmiş bir koruma ve bakım mekanizması olarak devreye girmektedir. Sistemin bütünsel olarak korunması ve sürdürülmesine yönelik çalışmalarda, dirençlilik konusunda birçok yaklaşım geliştirilmiştir. Bu çalışmada, bunlardan en kapsamlı ikisi olan RELi ve CRI, Ankara'daki Hamamönü örneği üzerinden tarihi alanlarda dirençlilik değerlendirmelerini incelemek için ele alınmaktadır. Türkiye'de sürdürülebilirlik kapsamında değerlendirilen dirençlilik kavramı görece yenidir. Bu çalışma kapsamında ele alınması öngörülen Ankara kenti, kültürel miras koruma ve bununla bağlantılı turizmin dirençlilik çerçevesinde incelenmesine ilişkin dikkate değer bir örnektir. Ankara sadece Türkiye Cumhuriyeti'nin başkenti ve burada başladığı şekliyle yükselen demokrasinin ilk tanığı değil, aynı zamanda Hitit, Frig, Roma, Bizans, Selçuklu ve Osmanlı gibi eski kültürlerin mirasını da içinde barındırmaktadır. Çoklu kültür katmanlarının bir arada var olduğu Ankara'daki Ulus bölgesi örneğinde tarihi alanların dirençliliğinin incelenmesi amaçlanmaktadır. Ankara, sermaye ve başkent kimliğinin getirdiği aşırı nüfus, trafik, ekonomik ve ekolojik yaşamdaki gelişmeler açısından birçok sorunun gözlemlendiği çok katmanlı bir çalışma alanıdır. Tez alanı olarak seçilen Hamamönü bölgesi, eski şehir merkezinde önemli bir kültür noktasıdır. 2009 yılında Hamamönü bölgesinde gerçekleştirilen rehabilitasyon müdahalelerinden sonra bölgede büyük ölçekli ekonomik, demografik, yapısal ve altyapısal değişiklikler meydana gelmiştir. Hamamönü örneğinin dirençlilik kapasitesinin anlaşılması için bölgenin ekonomik, yapısal tarihsel demografik ve altyapısal, yönetimsel katmanları incelemek için alan analizi, sözlü anket çalışması ve CBS ölçümleri ile veriler toplanmıştır. Toplanan veriler, CRI ve RELi 2.0 dirençlilik ölçekleri bağlamında değerlendirilmiş ve çeşitli öneriler geliştirilmiştir. Ankara'da kültürel mirasın korunması ile ilgili gelecekte neler yapılabileceğine dair bir yol haritasının oluşturulmasında kritik olduğuna inanılmaktadır. 'Tarihi Alanlarda Koruma ve Rehabilitasyon Çalışmalarının Dayanıklılık Kapsamında Bir Değerlendirmesi: Ankara Hamamönü Örneği' başlıklı bu tez, korunması amaçlanan sit alanlarının sağlıklaştırma çalışmaları sonrasında beklenmedik kriz ve bunlara bağlı değişimlere karşı direnç düzeylerini incelemeyi amaçlamaktadır.

Anahtar Kelimeler: Dirençlilik, kentsel koruma, sağlıklaştırma, Hamamönü, Ankara.

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1. INTRODUCTION

The concept of resilience was developed originally by Crawford Stanley Holling (1973), who discussed that an ecosystem has more than one equilibrium point instead of existing in an inflexible singular state. Since then, the concept has evolved to find relevance in various fields. It has been on the agenda and developed in architecture and urbanism since the late 2000s (Merrill & Giamarelos, 2019: 2). In today's world, affecting the city and urban life both socially and physically on the global, regional, and local scales, plenty of parameters emerge, such as economic crises, demographic changes observed after the wars, global warming causing climate crises, or pandemics. The concept of resilience examines the absorbability, adaptability, and recoverability of structural, infrastructural, and non-physical elements of cities against sudden changes observed within the different scales in city systems (Medd & Marvin, 2005: 46). Accordingly, resilience is a holistic approach based on identifying and developing the vulnerable points of cities.

While considering the concept of resilience at the urban and building scales, the central concept to consider is the system mechanism (Walker et al., 2006: 12). To ensure the system's integrity and sustainability, resilience must be developed to produce a multilayered, long-term, and inclusive study including different disciplines such as; building science, urban design, urban sociology, landscape ecology, infrastructure systems, community psychology, and history. The resilience level and carrying capacity of the urban mechanism significantly impact the sustainability of an urban settlement.

The urban and architectural studies in the context of resilience include examining the structural effects and evaluating social, cultural

and human-induced crises (Bahadursing, 2020). Consequently, the Covid-19 pandemic, which has been influential worldwide since early 2020, and its effects have also become one of the concepts to be discussed in the context of resilience.

However, after the emergence of the Covid-19 crisis, it has been observed that the effects of space use and social distance rules, which have become mandatory to rearrange, went beyond the building scale. The Pandemic affected every point, from public spaces to seating arrangements in social areas. It should be kept in mind that the

parameters of controlled social life are effective in many areas, from the economy to trade (Giacobbe, 2020).

Within the scope of the conservation and rehabilitation studies completed or planned to be carried out in our country, it aims to eliminate the deficiencies and ensure the permanence of the conservation projects and practices. The preventive mechanisms that should be taken within the scope of resilience against possible physical and social problems and threats may arise after the implementation, starting from the project processes of the historical areas.

This study tries to analyze and evaluate the resistivity context, particularly after conserving and rehabilitating historic areas in Turkey where sudden changes occur. The aim is to examine the criteria of protecting historic sites with a more permanent, healthy, and resilient conservation understanding to prevent changes after conservation studies and causing deterioration and loss in historical sites' tangible and intangible characteristics. The thesis intends to create a model based on the example of the Hamamönü area in Ankara, evaluate the physical and sociological changes after the conservation and rehabilitation implementations in the area, and increase the permanence of conservation and rehabilitation by eliminating negative changes that occur in this context.

The concept of sustainability plays a crucial role in transferring the tangible and intangible cultural heritage to future generations in the conservation and improvement of historical areas. Therefore, while the resilience studies are to carry out the sustainability capacity to the next level, they will also provide solutions to long-term and future problems. Besides, it aims to take the Covid-19 pandemic crisis as a reference in measuring the resilience of the commercia and cultural identity desired to be brought to the region with Hamamönü rehabilitation studies. In this context, it is aimed to measure the adaptation levels of the inhabitants/local people, businesses, and tourists to the pre-crisis economic situation in the region, post-crisis, and the new normalization practices.

1.1 Objectives of the Study

This study on the Hamamönü area in Ankara will test the related measurable parameters within the scope of resilience. It covers the analysis and evaluation of population, migration, demography, post-crisis economic satisfaction, user satisfaction, long-term efficiency of structural and infrastructural renewals, pre-project, post-project, post-implementation, and solution suggestions.

The methods and data that emerge within the scope of this study are expected to be an example and guide in terms of being more durable, permanent, brief, and more resistant to changes specific to place and time in future conservation and rehabilitation projects.

However, within the scope of evaluating the recent Covid-19 crisis, the process afterward, the evaluation, and handling of sudden non-physical crises related to resilience is another topic that will be included in this study. In the context of the Hamamönü example, it is aimed to examine.

1. The situation before conservation and improvement works (before 2006)
2. The scopes and implementation process of the Conservation and Rehabilitation Project (2006 - 2010)
3. The situation that occurred in the past 12 years after the completion of the implementation (2008-2021)
4. The pandemic and post-pandemic conditions including the economic crisis of 2022.

As a result of the studies on this four-step process, after analyzing the collected data and evaluating it in the context of resilience, it can be expected that the general and specific scope of the project will be understood more precisely. Hamamönü's case can provide a wide range of data due to its multilayered demographic, geographical, economic, socio-cultural, and structural qualities and can be an example for future similar projects.

1.2 Methodology

Within the scope of this thesis, the research techniques and analysis methods to be

considered in the Hamamönü case can be divided into two: qualitative and quantitative.

Within the quantitative research method, surveys and face-to-face interviews were conducted to analyze the demography, age, user diversity, and awareness of the users and visitors about Hamamönü to examine the district's current situation. It aims to explore the obtained survey data through the SPSS [1] program and evaluate the outputs statistically and transfer them to the research. It also seeks to compare the historical data obtained from the archives of Altındağ Municipality and Ankara Metropolitan Municipality with the latest data. As a result of the comparative analysis of the obtained results, it is envisaged to develop strategies to strengthen weak parameters in problem identification and resilience.

Within the scope of qualitative research, it is aimed to evaluate the maps to be prepared using the AutoCAD program with the space syntax analysis method to assess the structural relations in the buildings and open areas determined in the study area at Hamamönü. Furthermore, it is aimed to evaluate the differences, the positive and negative results after 11 years through a multilayered analysis process by examining different binary interactions such as space-human, space-environment, human-environment, and economy-human.

Another topic is evaluating the current Covid-19 global crisis, sudden changes, and the 'new normal' brought with it. Within the scope of 'disaster resistant built environment' (Ekincioğlu, 2020), which has been on the agenda since 2020, it is aimed to analyze the Hamamönü Rehabilitation Project in a multilayered manner
It is thought that the importance of resilience emerges with the evaluation of the new standard. .

[1] SPSS is short for Statistical Package for the Social Sciences, and it's used by various kinds of researchers for complex statistical data analysis. The SPSS software package was created for the management and statistical analysis of social science data. It was originally launched in 1968 by SPSS Inc. and was later acquired by IBM in 2009. (Wellman and Barry,1996). For this thesis study, SPSS was used to evaluate data collected by the survey. And the survey study carried out by the Nev Bilgi Consultancy Company within the scope of service procurement.

The research and analysis reports and application plans of the Hamamönü Rehabilitation project were obtained from the archives of Altındağ Municipality. Moreover, the surveys were initiated, and the fieldwork was conducted to determine the current situation as the first leg of this study. In addition to literature analysis and comparison of the collected data, it was also necessary to provide the necessary photographic documentation collected for the CAD maps.

The second leg of the study addressed the space syntax analysis with CAD maps analyzing the obtained data via SPSS.

The third leg of the project is analyzing and evaluating past and present over the collected data and predicting future problems in the context of resilience. Besides, it is aimed to determine the weakening and strengthening aspects of the demographic, economic, ecological, structural, and infrastructural geography because of the rehabilitation studies and to increase the measures and sustainability studies for the area against traumatic events like excessive migrations and economic crises which cause possible traumatic situations. This study was selected as the 1002 project within the scope of TÜBİTAK Ardeb and was financially supported within the scope of service procurement.

2.THEORETICAL FRAMEWORK

Resilience is a broad topic that has been derived and studied in many scientific fields in context. It is an integrated system mechanism studied and developed in different fields, from economics to ecology, from psychology to biology. It continues to be critical in various fields of study related to the protection and sustainability of general system parameters. In this context, before considering available resilience approaches, it is necessary to understand the system and system diversity in the field of resilience integration.

2.1 Resilience as a System Integration

Systems are integral structures that work with variables, in which each component functioning as a whole interacts with each other to a certain extent. In system theory, it is possible to observe that systems are divided into different categories according to their working principles, structures, elements, orders, and patterns (Bertalanfy, 1976: 102). However, within this study's scope, two of the system indicators will be mentioned as the "open system" and the "isolated system.' In its broadest scope, the open system uses different parameters, like raw materials or energy, to enter and allow the final product out. The advantages of open systems are that there is no stress on resources and raw materials produced within the system, and there is no end product stock or waste stock inside. Against permanent circulation, the system elements should be protected against different stimuli that may come from outside by controlling the regular entry and exit points within the system boundaries(Bertalanfy, 1976: 104). To ensure internal balances called "homeostasis" for the protection and regulation of system parameters, it is necessary to increase absorbability, recoverability, and adaptability. System protection mechanisms increase sustainability by protecting the weak links of the chain to protect the system elements against external stimuli. However, one of the major advantages of open systems is that they allow growth and development (Bertalanfy, 1976: 103). Open systems generally have characteristics observed in living organisms; but are open to external influences (Bertalanfy, 1976: 141).

On the other hand, unlike open systems, isolated systems do not exchange raw materials and energy from outside or inside. In these systems with closed boundaries, it is relatively possible to achieve internal balances since the system balances are not exposed to any external stimulus (Bertalanfy, 1976: 141).

In any social or structural open system, the resilience mechanism that ensures the integration process against external shocks is the mechanism of identifying the weaknesses of each element and improving its sustainability (Bertalanfy, 1976: 141).

2.2 Cities as a Complex Open System

Cities can be defined as complex open systems due to their complex social and structural layers. According to Michael Batty (2009), cities have been treated as a complex system for more than fifty years. Nevertheless, the definition of the city system changes and develops day by day with the progressing conditions and technologies. The complexity was also developing and evolving to promote a globalizing world.

Moreover, Rocha stated that;

The system approach enables us to address the city as a dynamic complex system, and complexity is the key issue to guaranteeing the evolution of the system. When the components of the urban subsystems and their relationships are in equilibrium and/or stable, the cities are in a sustainable dynamic state. The smart cities paradigm has all of the potentials for stimulating prosperity, competitiveness, efficiency, and sustainability at several socio-economic levels (2020).

Diversity has positive and negative consequences like unforeseen natural disasters, epidemics, economic crises, and civil wars. Due to the diversity it hosts, each interconnected element's reaction manner and duration to adverse effects are also different. Since the endurance capacity of each component is different, the city system is as strong as its weakest component on the whole. In this context, some holistic approaches, as in urban resilience strategies, should be addressed to maintain the integrity of the system (Meerow et al., 2015: 39)

2.3 Urban Resilience

Considering the multilayers of urban life in today's conditions, the factors that the mechanism must calculate are not only limited to physical disasters but also to the social sides of the huge traumatic events like the terrorist attack series of September 11. Unfortunately, this event affected many people who lost their loved ones, but more importantly shook the trust mechanism of the whole society. Therefore, the resilience mechanism should be the outcome of different disciplines like building science, urban design, urban sociology, landscape ecology, infrastructure systems, community psychology, and history, as well as multilayered and long-term (Meerow et al., 2015: 45).

‘People's resilience’ or ‘social resilience’ is conceptualized as the capacity of citizens of the city and ability to categorize and organize their skills to create new sources, opportunities within their community ties and senses, and new innovative forms, as well as their capacity to act with solidarity in the aftermath of a disturbance. For example, if the city were a body, the citizens would be the blood that feeds, protects, and floats through the vessels. If the body gets injured, it will work as a regeneration mechanism. Besides, the immune capacity of the system can be determined by the citizen's reactions. It may either collapse into chaos or regenerate into a further better level.

The resilience, in terms of structure, is related to the adaptability and flexibility of service systems called 'robust structures'. Robust infrastructure identified by Capela Lourenço and others as ‘… means that infrastructures maintain function over time, regardless of the stresses and shocks experienced. Robustness-orienting strategies focus on climate- proofing to a range of possible futures’ (2014: 31).

The structural resilience will also protect urban landmarks and the spatial values of the city. To achieve this, the urban governmental mechanisms spend time and invest money to create and assume possible destructive scenarios (Meerow et al., 2015: 45). Moreover, it is necessary to develop recovery programs against these scenarios, which should be adaptive and flexible.

According to Stephane Hallegate's research (2015) sponsored by the World Bank, economic resilience briefly is;

> Welfare impacts also depend on the ability of the economy to cope, recover, and reconstruct, therefore to minimize aggregate consumption losses. This ability can be referred to as macroeconomic resilience to natural disasters. Macroeconomic resilience has two components; instantaneous resilience, which is the ability to limit the magnitude of immediate production losses for a given amount of asset losses, and dynamic resilience; which is the ability to reconstruct and recover (Hallegatte, 2015: 14).

Urban resilience is a multilayered structure that includes ecology, sociology, economy, demography, history, infrastructure, mobility, and technology. Each layer should be explored in its way and viewed in its context in an integrated approach. City planners, governors, non-governmental organizations, and citizens should be a part of the problem-solving mechanism to understand the situation properly and to predict and welcome the future. The participation of the stakeholders makes the system balanced and sustainable, as those who live in a city make it a city and decide in the best possible way (Meerow et al., 2016: 46).

Within the evaluation of this context, it is possible to multiply and derive city layers. However, one of the main topics to be considered is that each case, city or campus, is a specialized system that works with its internal dynamics. This creates the development of a particular type of integration for each system-oriented mechanism (Meerow et al., 2016: 49).

2.3.1 Risk assessment

Potential risks must be determined first to determine the system protection mechanisms. According to Terje Aven (2017: 538), the conceptual framework for risk assessment should be kept beyond the general quantitative risk assessment context given its diversity in content. However, there are three main indicators determined for the hybrid risk identification and problem detection mechanisms, envisaged to be used within the scope of this study.

The risks arise in the community as social and economic crises, disrupting human well-being by the disasters like pandemics, and pollution-based crises that are both natural and unnatural. After the risk assessment process, there are main strategies developed to measure resilience against identified risks. Two of them will be discussed in the context of Resilience Risk Assessment, known as RELi, and City Resilience Index (abbreviated as CRI) (Url-11). In December 2013, Rockefeller Foundation announced the initiative of ‘100 Resilient Cities'. '100 Resilient Cities' titled international project is a series of problem-oriented projects applied within the scope of the concept of resilience at different scales and themes in a hundred different cities from around the world and has proven its reliability with its socio-cultural and structural holistic approaches. The resilience mechanism has been studied in a hundred different cities around the world within the scope of the ‘100 Resilient Cities project (Url-11). In the project processes in which different scale and city-specific problems are addressed for each city, such as sociological, infrastructural, historical, demographic, environment-related, and similar indicators, it is aimed to foresee the sudden and important problematic changes that can be observed in the city and the mechanisms that can correct these problems to determine the system elements with the lowest adaptation to change in this process, to expand and develop the capacities of these elements in terms of resilience. Infrastructural, demographic, economic, ecological, and social resilience indicators come to fore in these studies conducted worldwide, and it is aimed to develop solution-oriented projects with the participation of both local governments and non-governmental organizations (Godschalk, 2003: 138). At the end of 2019, Rockefeller Foundation announced the completion of this project series, and afterward, they developed the city resilience index (CRI) format as an output of this project with the Arup Group.

The CRI indicators are shown at Figure 2.1 and Figure 2.2.

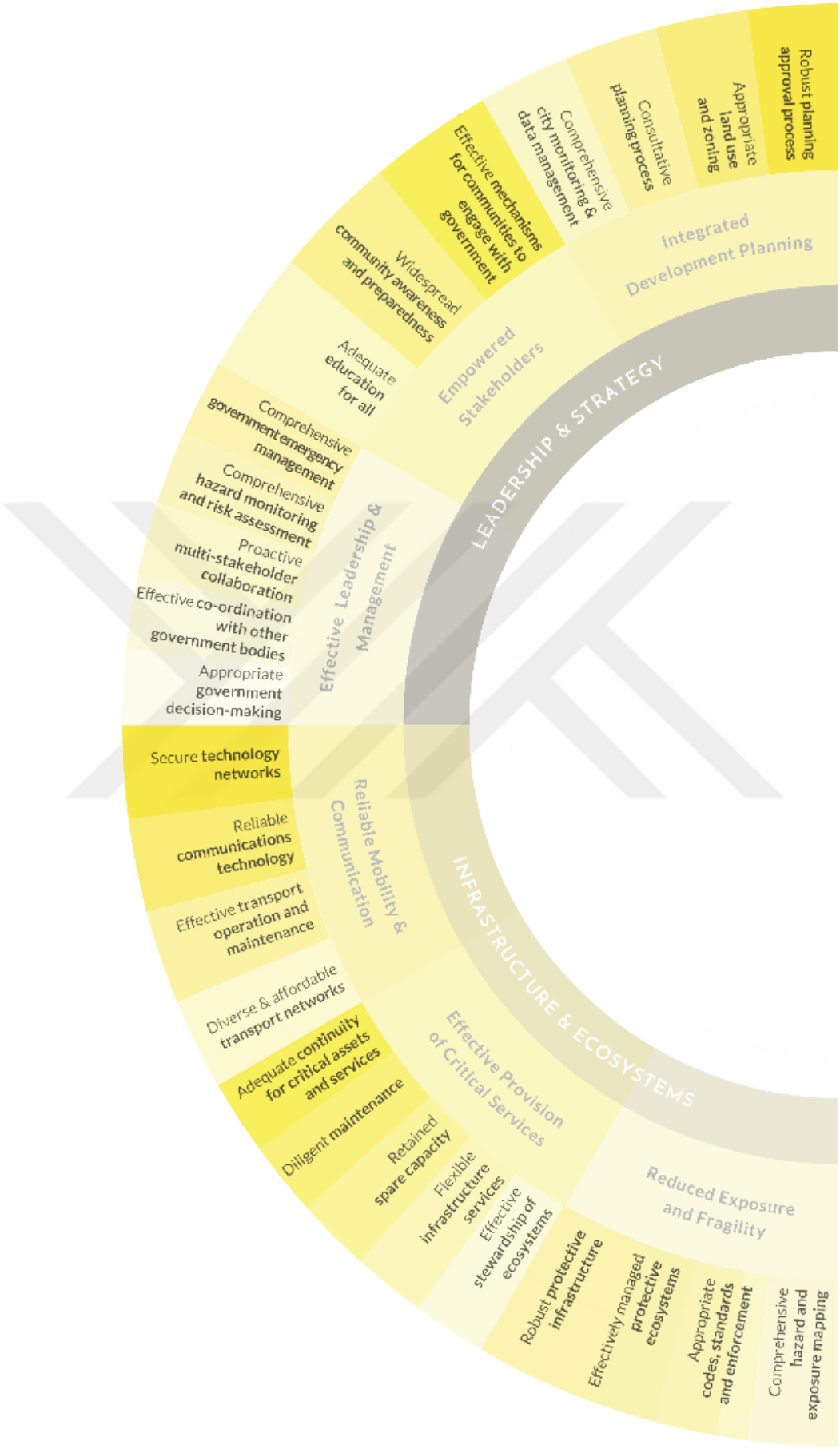

Figure 2.1 :CRI (City Resilience Index) (Arup, 2020).

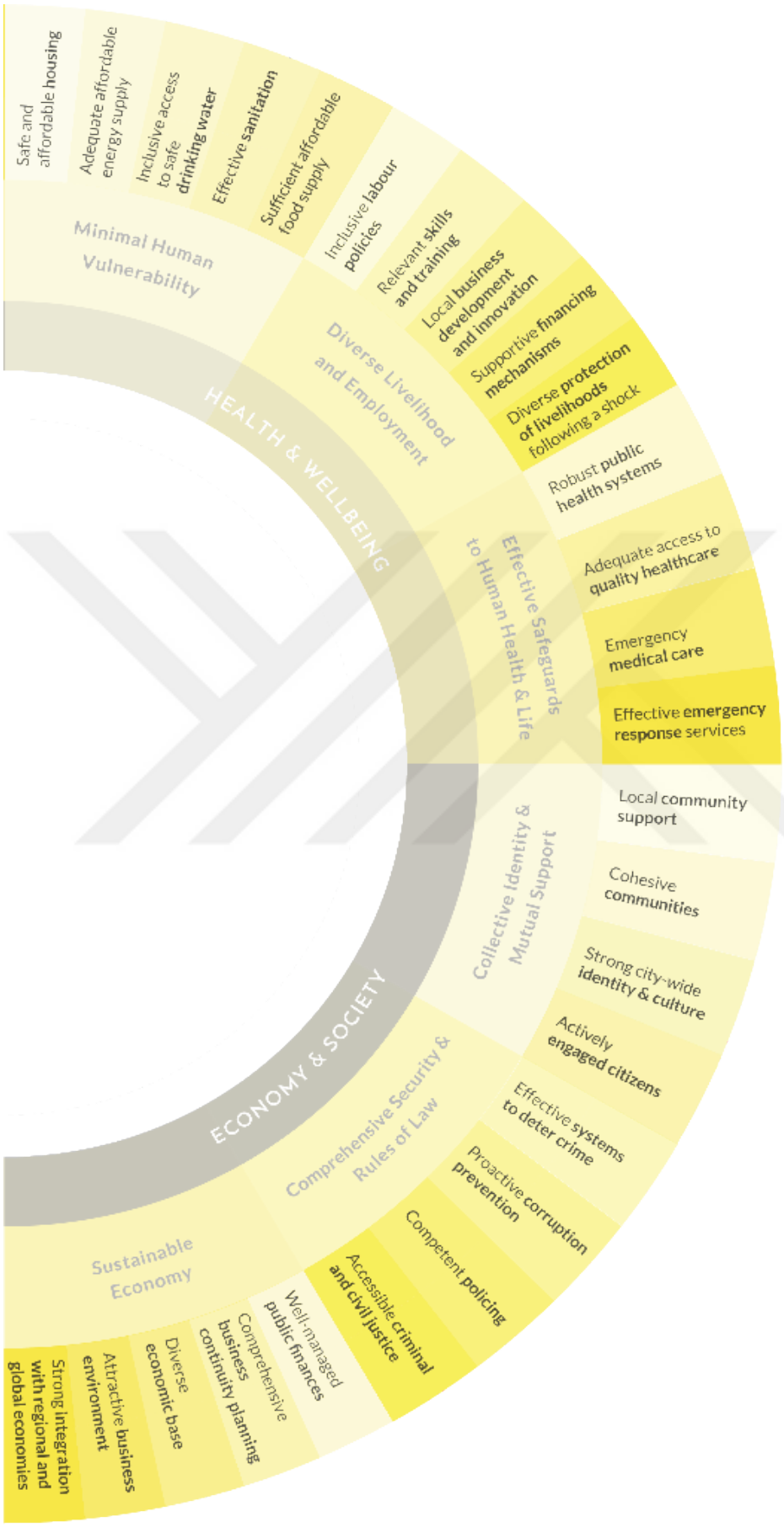

Figure 2.2: CRI (City Resilience Index) (Arup, 2020).

CRI (City Resilience Index) is a resilience measurement mechanism where the practices realized in different contexts over 100 cases are compiled to increase sustainability. As a result of this project series, CRI has emerged as a study consisting of 4 dimensions, 12 goals, and 52 indicators (Url-11).

RELi, a system to be used as another resilience assessment scale is designed by Green Business Certification Inc. with the US green building council. Developed by the creators of the LEED green building certification process, it is more conceptual and theoretical, unlike CRI (Url-7).

RELi's risk assessment and evaluation process is similar to Leed certification. For example, resilience rating criteria consists of four basic levels; certified, silver, gold, and platinum. Although RELi is mainly designed for commercial use, for companies, developers, city planners in January 2019, the company published RELi 2.0 Rating Guidelines for Resilient Design and Construction, a publication that researchers can use in their studies evaluating the resilience parameters (Url-7).

RELi's approach promotes the basis for resilient studies that enhance the quality of urban life. RELi 2.0 action charts based on 7 major indicators:

1. Panoramic approach
2. Hazard preparedness, short-term hazard preparedness,
3. Hazard mitigation and adaptation
4. Community Cohesion, Social + Economic Vitality
5. Materials + artifacts
6. Productivity, Health + Diversity
7. Energy, Water + on-site Food Production

(Url-7).

Within the scope of this thesis study, determining and measuring the resilience implementations according to four indicators, each study will be determined to use scaling resiliency of the selected field. (Figure 2.3 and Figure 2.4)

In terms of this thesis study for the resilience evaluation to be able to achieve more comprehensive results, two major resilience evaluation approaches were used. However, it is important to consider that the resilience evaluation is a case base study, and each case has its own context. For example, RELi 2.0 addressed the projects from different scales including the farming areas, wetlands, etc. After examining the requirements of RELi 2.0, the assessment criteria were diminished from 7 to 4.(Figure2.4). The reason behind it is that the three indicators of the RELi 2.0 are not measurable for the case of Hamamönü. For example, energy, water, and on-site food production are assessment criteria that measure the resilience level of farmlands and arable lands. Because Hamamönü is in the historic city center and was used for residential purposes, there are no production activities carried out on a measurable scale. Similarly, hazard mitigation and adaptation, productivity, health and diversity were the indicators that are not considered as a measure of evaluation.

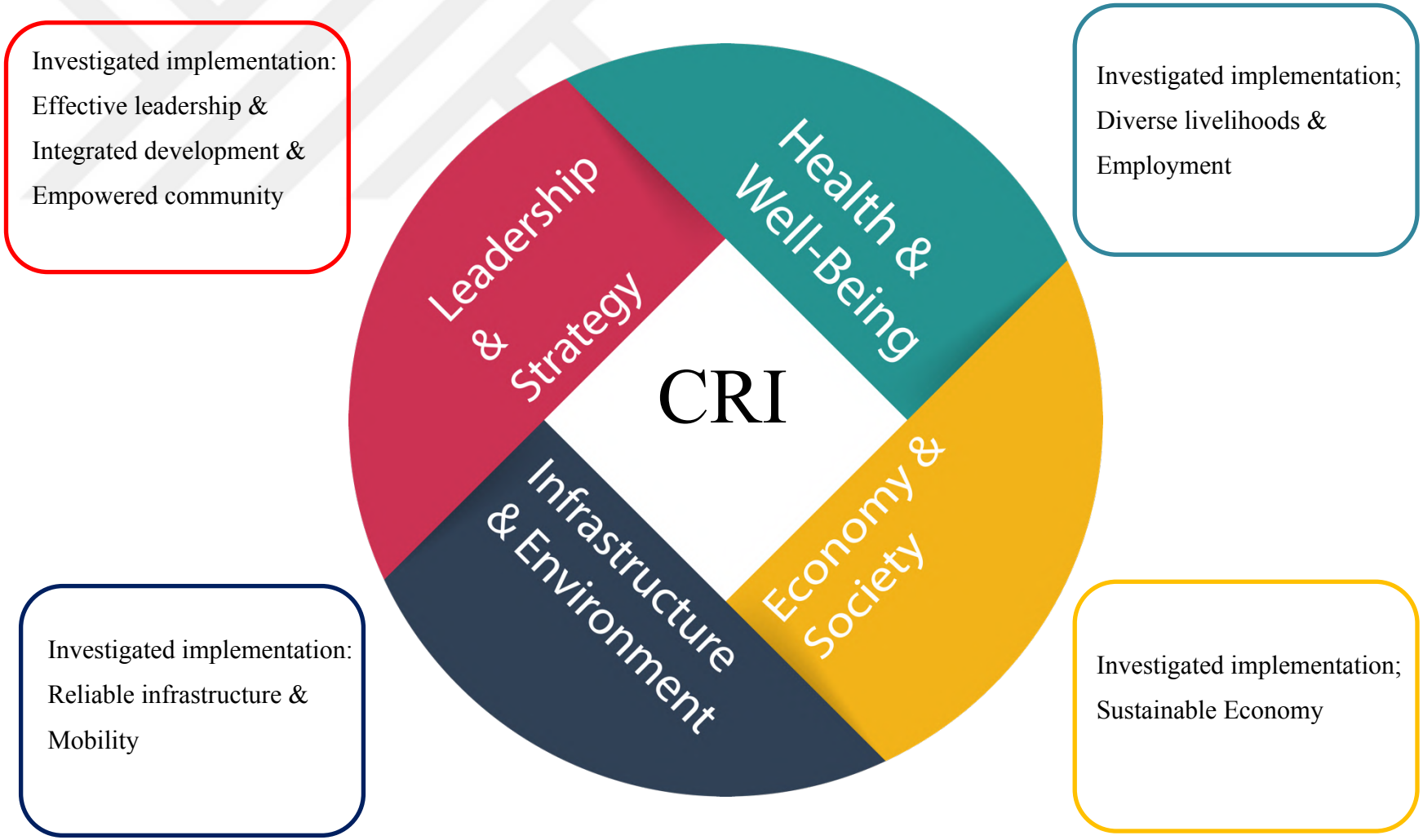

Figure 2.3: CRI Implementations by Arup, 2020 (schematized by Çakıroğlu, 2021).

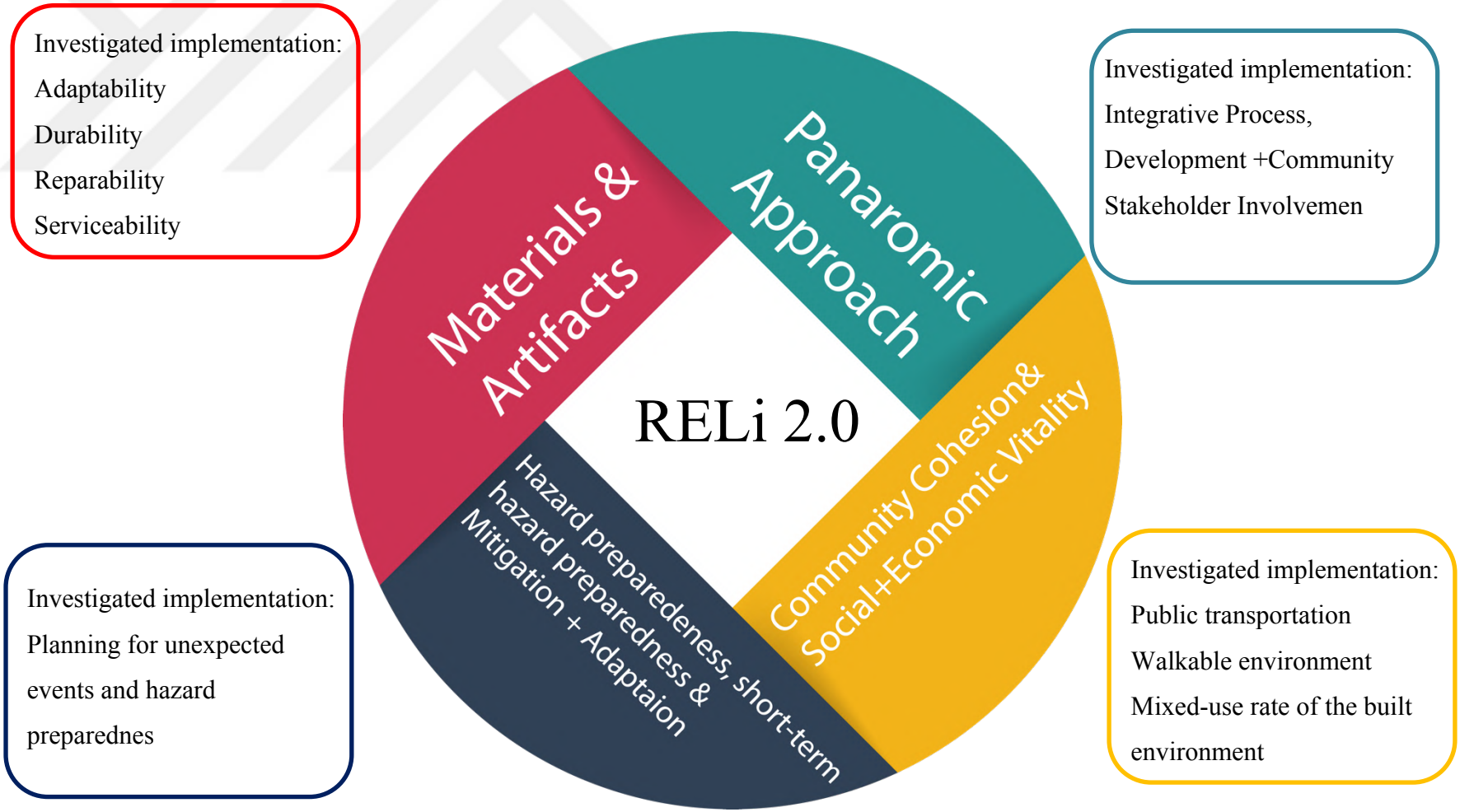

Figure 2.4:Reli 2.0 Implementations by US. Green Building Council, INC, 2020 (schematized by Çakıroğlu, 2021).

2.3.2 Intangible Heritage Resilience

Preservation and sustainability of cultural heritage are two major issues for the protection of cultural properties. The prominent work in this context is not only for the conservation of tangible but also for intangible cultural heritage. Various studies are carried out within the scope of resilience in the conservation and development of cultural heritage. According to the UN Global Risk Assessment Report, the most efficient way to preserve world cultural heritage is to contribute to the resilience of societies (2015: 131-135). In this context, tangible and intangible cultural heritage are two components that must be protected in multilayered city systems. It is crucial to enhance the resilience of the whole system parameters to achieve this.

2.3.3 Preservation of Cultural Heritage Concerning Urban Spaces

The practices for conserving both tangible and intangible cultural heritage are far beyond the universal principles because the requirements and needs of each case are diversified. What is meant to be emphasized here is that authentic aspects of time and space are essential in life and activities (Göksu,199: 81). Preservation of the authenticity of the urban space depends on human, space, and cultural concepts.

Since the beginning of the early settlements, the spaces where people lived, have served more than just protection. The phenomenon of space that develops within the framework of needs bears traces of individuals' and communities' social demographic, economic, and political lives. As the living space is connected with contemporary human life, evaluation of the living spaces provides strong references to social relations (Büyüköz, 2019: 16).

Within the scope of preserving cultural heritage, examining these relationships and evaluating them in the context of resilience provides important clues about how tangible and intangible cultural heritage transforms and develops together in a multilayered city structure.

In this context, it would be beneficial first to examine the scope of spaces.

concept and the multiple scenarios when new design approaches are developed worldwide with the current Covid-19 global crisis handled at different scales

Tangible and intangible cultural heritage exists, transforms and develops together in a multi-layered city structure. In this context, it would be beneficial first to examine the scope of spaces. Definition of the space is considered beyond the physical borders, such as;

- Beneficial space: It is an environment in which the human beings who use and. change the physical environment in line with their own needs, constantly exhibit behaviors related to life, reproduction, and production.

- Symbolic space: It is a space that is not within the perceptual dimensions of humans, but depends on the political, economic, cultural, and social systems and their symbolic structures that it interprets with cognition, emotions, and evaluations.

- Architectural space: These are organized spatial systems constrained in four dimensions with time and meet the physiological, psychological, and social needs of the users living there. They take place in a variety of scales and sizes.

- Abstract geometric space: It is the geometric setup and composition of the architectural space obtained through abstraction.

- Existential living space: It is the understanding of space constantly shaped or changed by human actions. Memories are defined by mental processes such as expectations. (Cengizkan

Despite the transformation and development of these spaces over time, it was also possible to observe that they existed within each other. In addition to all these, although there are several definitions of various types of spaces, it is a common point of agreement where the concept of space beyond a single definition is produced only through society (Tiryaki, 2014: 13).

Considering that people live increasingly in urban spaces today, prominent places where time and history are perceived, understood, interpreted, and passed onto future generations are the places they live and shape. This emphasizes the importance of the formation of social (collective) memory and the relationship of space. According to Cansever (1994), civic is a collection and a reflection of the peculiar products of the buildings, places, lifestyles, material, economic, psychic, and spiritual existence areas human beings construct and live in.

Space is a critical tool for preserving memory, keeping the sense of belonging and making it permanent, and transferring it to future generations. According to Bachelard (1996), beyond being a mere physical object, spaces such as houses once born and raised are filled with memories, not just things. Memories are physically placed in the space and transferred. The most crucial factor to be considered is the share of the transferred memories on the intangible cultural heritage. The relationships and interactions of the buildings with each other, their internal dynamics, and systems stand alone as reflections of a cultural complex (Bachelard, 1996).

Beyond the mere memories or experiences of what is conveyed, the traditional lifestyles, cultural values, craft products, beliefs, and traditions of the communities are shaped and developed in the areas they live in. In this context, preserving and maintaining the intangible cultural heritage is possible by passing on traditions to future generations and maintaining the spaces in which they exist. This is one of the most fundamental factors to be addressed in the context of the resilience of intangible cultural heritage. The historical reconstruction of the urban space brings along the debates on identity protection. The change, destruction, and degeneration that occur in the urban fabric cause the loss of physical spaces, and the loss of the memories they contain. Severe disruptions occur in protection and sustainability policies, especially in developing countries, as the existing economic resources are directed towards more fundamental issues than developed countries. This situation means degeneration and de-identification of cities, as well as the urban dwellers' loss of identity in the long run. Even though the urban environment consists of several sub- layers, the survival of the buildings with the identity has indisputable importance in terms of culture and collective memory. However, one of the most important factors to be considered is the changing city life over time, the needs of the citizens, and the changing physical characteristics of the environment. However, making rigid decisions to preserve architectural and urban heritage against change and transformation has negative repercussions in the long run. While trying to protect identity, the decisions taken by ignoring the needs of the users cause the users to lose and the areas to remain idle. It is crucial to understand the need of time and the needs of the users to prevent this (Tiryaki,2014:21)

3. HERITAGE SITES OF ANKARA: HAMAMÖNÜ ANALYSIS OF HAMAMÖNÜ REHABILITATION PROJECT IN TERMS OF RESILIENCE

Ankara, the capital city of the Turkish Republic, had been used as a settlement since the 8th century BCE, even though the exact date of its establishment is unknown hacı

It is known that Frigians, Lydians, and Romans were the past inhabitants of the region. From the 1st century CE, Ankara became one of the most critical nodes of the Roman trade network (Günel, 2015: 90-91). In the middle of the 3rd century, the city was established within the citadel region. Additionally, fortification walls, Augustus Temple and Roman Bath all date back to that period (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu,2010: 37-38).

During the period of the Byzantine Empire (334-1075 CE), the Citadel region was the main settlement of Ankara (Arslan, 2012: 32-33).

Turkish governance in Ankara had begun by the end of 1075. However, due to the political conflict between Turkish tribes, the redevelopment process only began at the beginning of the 13th century (Günel, 2015: 9192). The significance of the Turkish traditional state administration consists of several disciplines such as economic, social, demographic, ethnic policies, and religious affairs. It is essential to understand that all layers of those strategies are quite interrelated with each other. For instance, the Ahi organization, as both an economic and religious community, was the pioneering model of today's professional associations where the production and control mechanisms formed and controlled by these guilds or groups of artisanal colleagues (Hacıaligökmen, 2011: 187).

The Ahi organization also had great power over the social life of Muslim society. As the Ahis were the leading supply chain of the cities, they also held the management of the general consumer market. The general administration of the inns and caravanserais, the formations of the trade network in the Seljuk culture, was also provided by the Ahis. Another important feature of this organization was that they were responsible for ensuring quality and continuity on production mechanisms (Hacıaligökmen, 2011: 188).

The significance of the Ahis in the Ankara region was one of the most important facts about the production of the 'sof' fabric (Yanar et al., 2016: 172). Sof is a premium quality fabric that has only been produced in the Ankara region since the mid-18th century. The wool of the goats adapted to the climatic conditions of the region is the primary source of the sof fabric. The fabric that can only be produced from the hairs of the Angora goats found in the region was among the leading products traded around the world. From the beginning to the end, the whole production mechanism was driven by the Ahi associations. Ahis established the production benches, supported the craftsmanship, supervised the final product and ensured the quality, and provided a worldwide trade network. As a result of the support of the Ahi organization, the sof fabric of Ankara became one of the most famous fabrics that was demanded from Europe to Syria (Akpınarlı & Yanar, 2016: 171-172).

Turkish sovereignty continued in Anatolia by the Anatolian Seljuks, then by the Ottoman Empire. In time, Ahi organization changed its name and took the name of the 'lonca' organization, but the organizational chart remained mostly the same ensuring the continuity (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 130-137).

At the beginning of the 16th century, Ankara became one of the wealthiest cities of Anatolia, expanding its borders from the Citadel region to the southern part of fortification walls. In this context, Ankara being divided into regions, one of them was the Citadel. In this period, the Citadel region had six and the periphery had 81 neighborhoods. Moreover, 74 of them were established by the Muslims, four of them by the Christians, and one by the Jews (Günel&Kılıcı, 2015: 95).

Population growth led to an increase in the capacity of sof production. It is estimated that the production of the sof fabric had reached a capacity of five thousand looms, which indicates the economic and demographic size of Ankara at that time (Gönenç, 2020: 255).

However, the wealth of the city brought several problems in parallel between 1604-1606 like the Celali rebellions (general name of the popular uprising in Anatolia) when Ankara had been attacked and plundered.

Due to these attacks, fortification walls were expanded and restructured, and some of the urban settlements and city neighborhoods including Hamamönü were reconstructed. During the reconstruction period between the 16th and 17th centuries, the city had been redeveloped around Karacabey mosque, Kurşunlu mosque, and Karacabey bath (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 148). According to the famous traveler and travel book writer Evliya Çelebi, Ankara had 6066 houses, 2000 stores, an international marketplace (Uzunçarşı bazaar, Kalealtı bazaar, Sipahi bazaar), and around 30.000 population where almost everyone was associated with sof fabric at the end of 17th century (Ergenç, 1980: 94). The Earliest image of Ankara (Figure 3.1) shows the production of sof fabric as well.

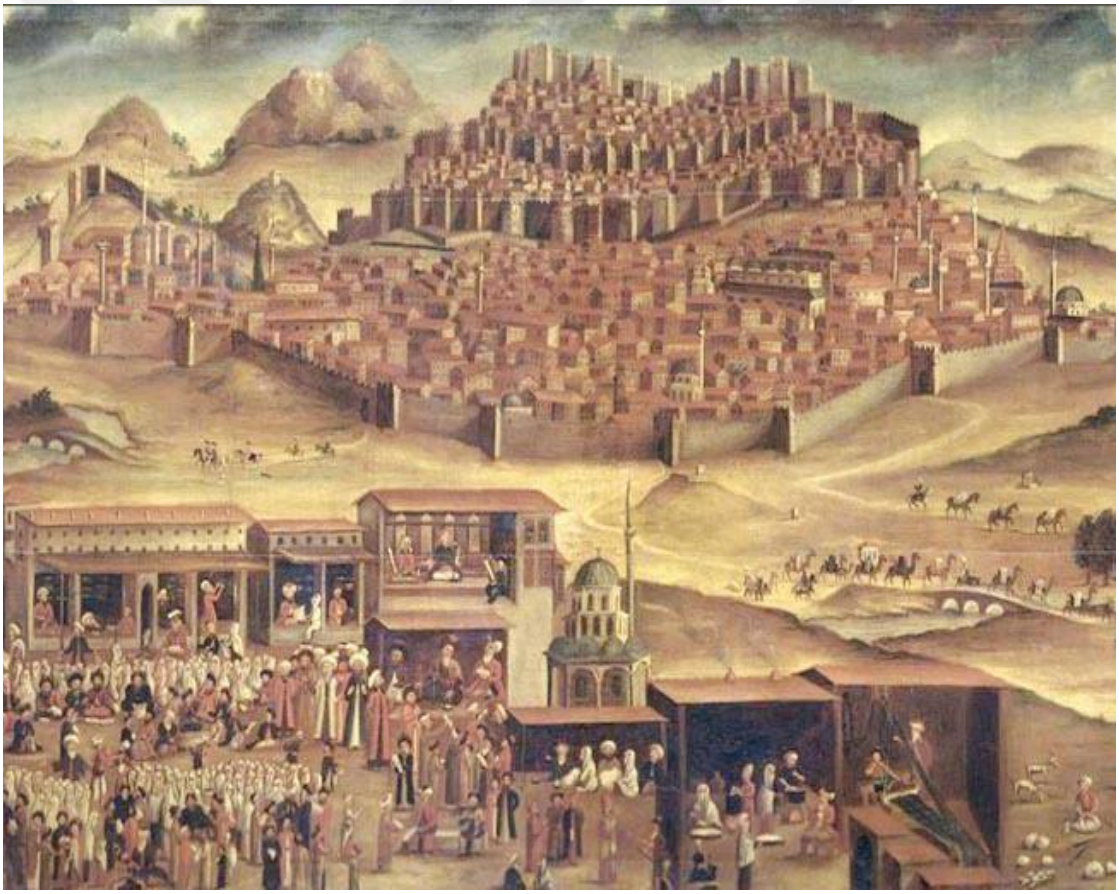

Figure 3.1:View of Ankara (1700-1799). Holland -Rijksmuseum - SK-A-2055 oil painting.117cm × 198cm. (Günel.& Kılıcı,, 2015: 39)

In 1789, with the beginning of the industrial revolution, the global trade network had developed particularly for the benefit of European society. The search for cheap raw materials and a cheap labor force accelerated the colonization process. In parallel, the bottleneck of the Ottoman economy of the time made the country an open market for foreign economies. Moreover, British investors managed to manufacture sof fabric in southern Africa with low production costs. A new trade regime had started against the traditional production system of the Ottoman Empire (Günel & Kılıcı, 2015: 87). By the mid-18th century, the alternative of sof fabric started to dominate the general trade network. As a result, the traditional production of Angora sof barely survived at the end of the 19th century. Another Celali rebellion arose in the same period that caused a massive population loss (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 36). It was not only the Ankara city that was in the economic bottleneck due to the 1838 trade agreement, but the whole country was in the same situation. One of the earliest plans of Ankara (Figure 3.2) Emhasizes the border of the old city.

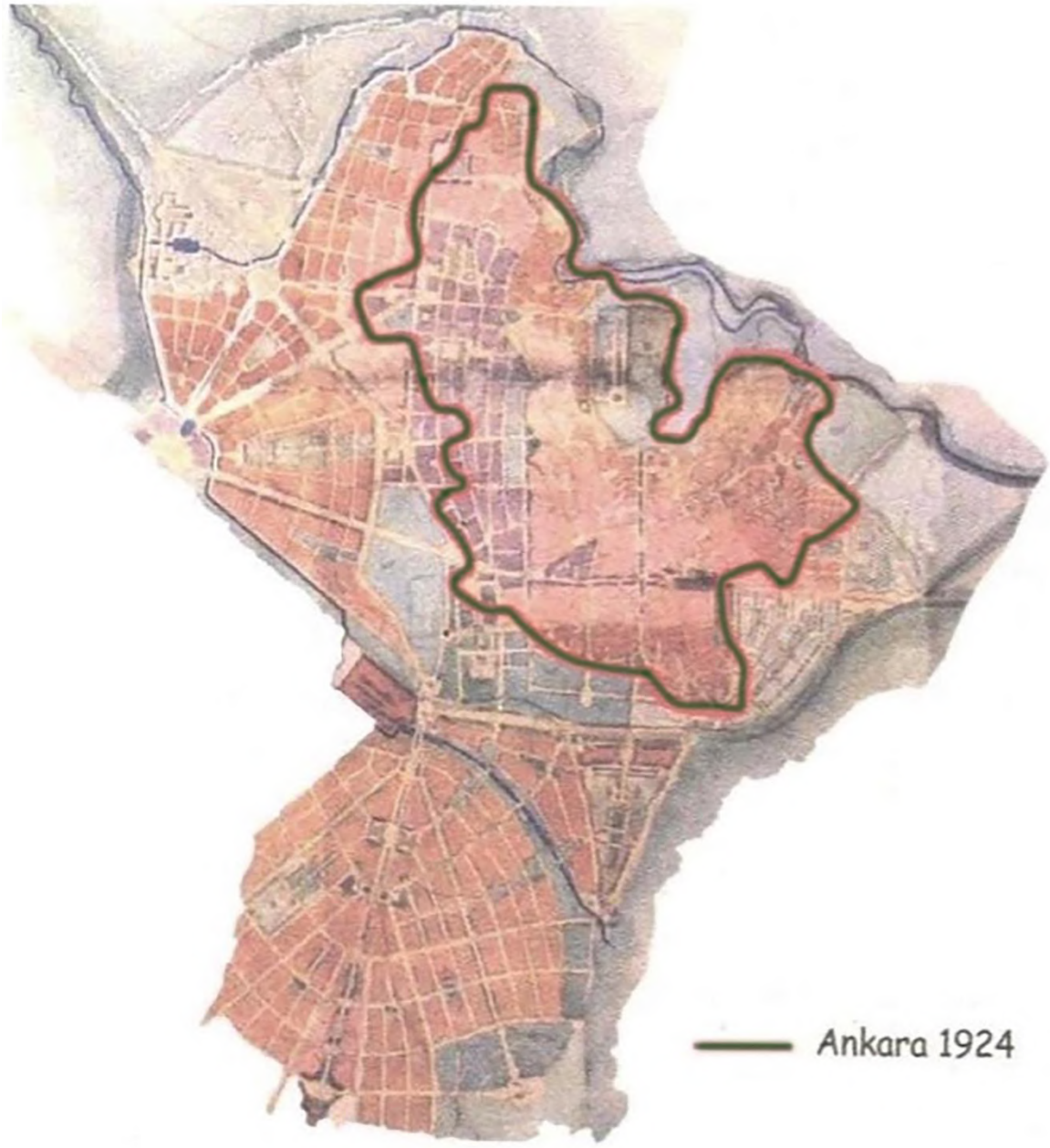

Figure 3.2: Lörcher Plan (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 166).

In 1917, the fire that broke out in the citadel area caused severe losses in the urban fabric. In the same year, the new city administration announced a competition for the preparation of the city's zoning plan. Dr. Herman Jansen was the winner of this competition (Bayraktar,2013:33).

Jansen Plan (Figure 3.3)was a multilayered, and innovative plan with predictive approaches. Jansen's contribution to the formation of the historic city's current form cannot be ignored. One important aspect of Jansen Plan was for the future population of 300.000, which exceeded the predictions in a short time. Another aspect was its main transportation network proposal, that two important boulevards Ankara and Talatpaşa were implemented accordingly (Yavuz, 1952: 25). Moreover, Jansen aimed to preserve the historic fabric of the old city at first. It was supposed to be a model proposing a transition zone between the old city and the newly developed areas to protect historic sites. The new plan aimed to solve the need for housing as well. The plan also proposed a green network among housing units with several public facilities. Ulus region which was the center of the new commercial capital that has started to emerge in Ankara, has been envisaged as the modern center according to Jansen plan. The planned area was around 1500 hectares, but due to several technical, legal, or governance problems, Jansen Plan could not be implemented completely. However, in the rehabilitation process around the Citadel region, the network zones throughout Talatpaşa Boulevard created a continuous corridor between the residential part of the old city including the Hamamönü area (Arslan, 2012: 39).

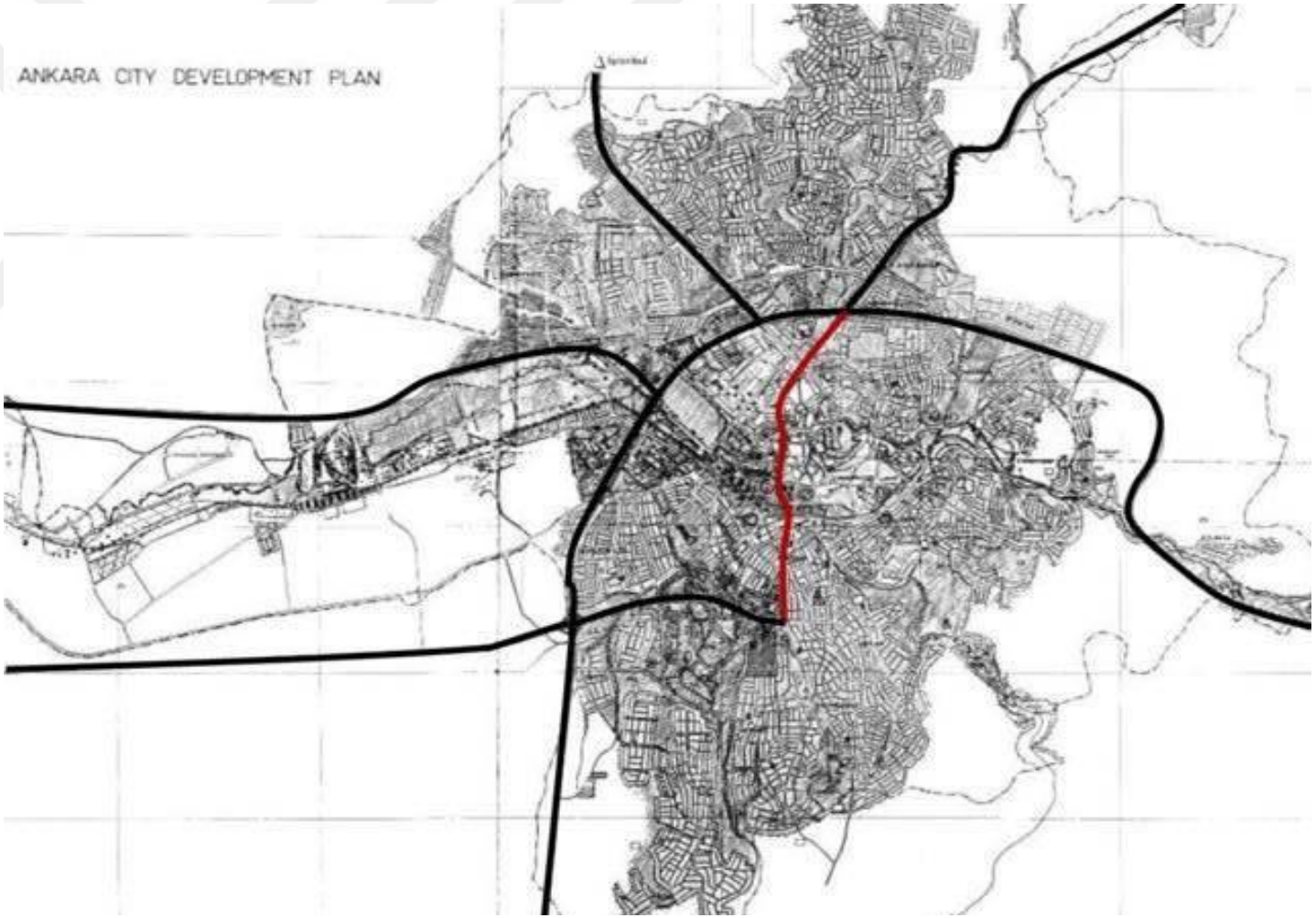

Figure 3.3 Jansens's Late Preliminary Development Plan for Ankara dated 1932(Jansen,1937:18-19).

There were several reasons behind why the development of Ankara exceeded the predictions and the plans such as economy, demography, and the potential of being the new republic's capital. To respond to the exceeded projections and increasing requirements of Ankara, Ankara Municipality announced a competition for another city development plan in 1955. As a result, Nihat Yücel and Raşit Uybadin's plan was approved in 1957. The Yücel-Uybadin Plan envisaged a city covering an area of 5,720 hectares with a population of 750,000 in 2006, when the real population was over 4 million according to TÜİKata (2021). In this plan, Kızılay was considered as the new city center and a part of the old city was planned and new roads were proposed. The main contribution of the Yücel-Uybadin Plan in the context of the urban system and its form has been the bypass road of Konya-Samsun Road which constitutes one of the most basic transportation backbones of the city today (Tiryaki, 2014: 109).

As both economic and public foci of the city have started to change towards the south of the city, the residents with higher incomes followed this change. The residents of the old city, including the ones from Hamamönü, sold or rented their traditional residential houses to people with lower incomes. As the houses of Hamamönü were too large and the rents were too expensive for single-families, most of them were divided and shared among multi-families. Yücel-Uybadin Plan was like Jansen Plan in terms of incorrect estimation of population increase. However, Yücel- Uybadin Plan suggested unification of parcels ('tevhid' in Turkish) around the main transportation network, where the apartment buildings started to occur along those roads one of which was Talatpaşa Boulevard (Arslan, 2012: 41). In 1960, due to the lack of housing stock and high migration rates, the legal process called the Regional Floor Order Plan (Bölge Kat Nizamı Planı) increased the density which meant allowing the building heights to be increased. Squatter houses started to occur around the old city center, and floor areas were increased at new buildings. The plan also enabled Hacettepe University main campus to expand its boundaries up to the Hamamönü area (Arslan, 2012: 41). With the laws enacted in 1963 and 1966, the squatter houses previously built became legalized.

With the Regional Floor Order Plan put into action in 1961, the density of the existing plans in force was increased and the incompatible multi-story buildings with the historical environment started to be built (Tiryaki, 2013: 110).

Depending on the development plan, it is possible to observe that the development of the city lapsed from the citadel region, especially to the western part of the city throughout Atatürk Boulevard towards the Çayyolu region. People who used to live in the old high-income urban areas moved to the new housing areas with apartment buildings. On the other hand, the citadel region had become a region for the lower-income groups after the 1970s (Batuman, 2013: 586). Towards the end of the 1970s, it is possible to observe that the conservation-oriented policies came forward with the urbanization approaches addressed by the related institutions and organizations in the state policy. With these conservation-oriented policies, comprehensive conservation studies for the old city began to be developed within the scope of Ulus Historical City Center Conservation and Improvement Plan (Ulus Tarihi Kent Merkezi Koruma ve Islah İmar Planı) through a competition by the municipality which was won by Raci Bademli and his team, approved in 1990. The plan proposed a new approach that suggested dividing the process into three different layers, which were; the conservation area, the conservation-oriented reclamation/regeneration area, and finally renewal-intensive reclamation area. The significance of the overall project was providing three different approaches:

1) Problem-oriented solution development
2) Land division according to context
3) Flexibility for the transformation of urban areas (Erkal et al., 2005: 37).

Ulus Historic City Center Plan has been valid for over twenty years, it almost became impossible to complete the project because of high expropriation costs and economic dilemmas between the landowners and practitioners (Erkal et al., 2005: 37)

The plans of Ankara and their effects are summarized at Table 3.1.

Table 3.1: Effects of Ankara Development Plans on Hamamönü (Çakıroğlu, 2022)

PLAN DATE	SIGNIFICANCE FOR HAMAMÖNÜ
1924 Lörcher Plan	With this plan, the planning process of the capital city started, First planning intention for Ankara, Proposes a new circulation network nearby Hamamönü No conservation attempt with a focus on housing.
1932 Jansen Plan	Proposed a transportation network that was applied throughout Hamamönü and Hamamarkası areas on two sides of Talatpaşa Boulevard, cutting the neighborhood Has a more conservative approach to the old city, Ulus is the economic center of the city where high-income groups still reside, Population estimations had failed, and were not completed due to conflicts.
1957 Yücel- Uybadin Plan	Proposes new residential areas such as Çayyolu, Batıkent, Yenimahalle, to which the residents of the old city started to move, The economic center of the city moved to Kızılay, so trade and business loss occurred around the old city, New high-rise buildings started to occur along Talatpaşa boulevard, Hacettepe University main campus started to occupy some areas from the Hamamönü area. Squatter houses were legalized, With the intense migration from rural areas, the population of Ankara had increased unexpectedly. Due to this, the housing needs increased causing illegal constructions. Low-income

	groups became the dominant population. Infrastructural problems started occurring because of overpopulation, The deterioration increased at historic buildings.
Ulus Historic City Center Conservation and Improvement Plan	The old city and Hamamönü region detected as a preservation area, Hamamönü region is commercial at the ground floors, residential at the upper floors, Hacettepe University Main Campus construction substantially ended up with the occupation of the southern part of Hamamönü region, Inventory and registration of historic buildings,

As can be understood from Table 3.1, almost every plan of Ankara affected Hamamönü in different ways. Throughout the century, the Hamamönü neighborhood was mostly used as a residential area, however demographic, economic, social, structural, and infrastructural changes were due to the heavy urbanization.

After the local government elections for Altındağ Municipality in 2004, a completely different approach was in the administration. In this new phase, studies and approaches received various criticisms from different stakeholders. In the following section, this new and different approach for Hamamönü will be examined further. With the attempt of Altındağ Municipality, Metropolitan Municipality, and the Ministry of Culture and Tourism, Hamamönü and the surrounding region have been chosen to initiate the conservation, rehabilitation, and improvement in the region (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu,2010: 24-30).

Dutlu and İnci Streets were the first phases of this project which is a protected area determined by the decision of the related law KVTVKK with the number 244 dated 19.11.2008. The historic buildings consisting of the the18th-century residential architecture in the area were restored and the region was rehabilitated. In the study area defined in Hamamönü; Tacettin Dergahı, Karacabey Bath, Kabakçı Mansion, and Mehmet Akif Ersoy Residence are important buildings in the social memory.
The implementation of the Hamamönü Project started from Dutlu and İnci streets Figure 3.4.

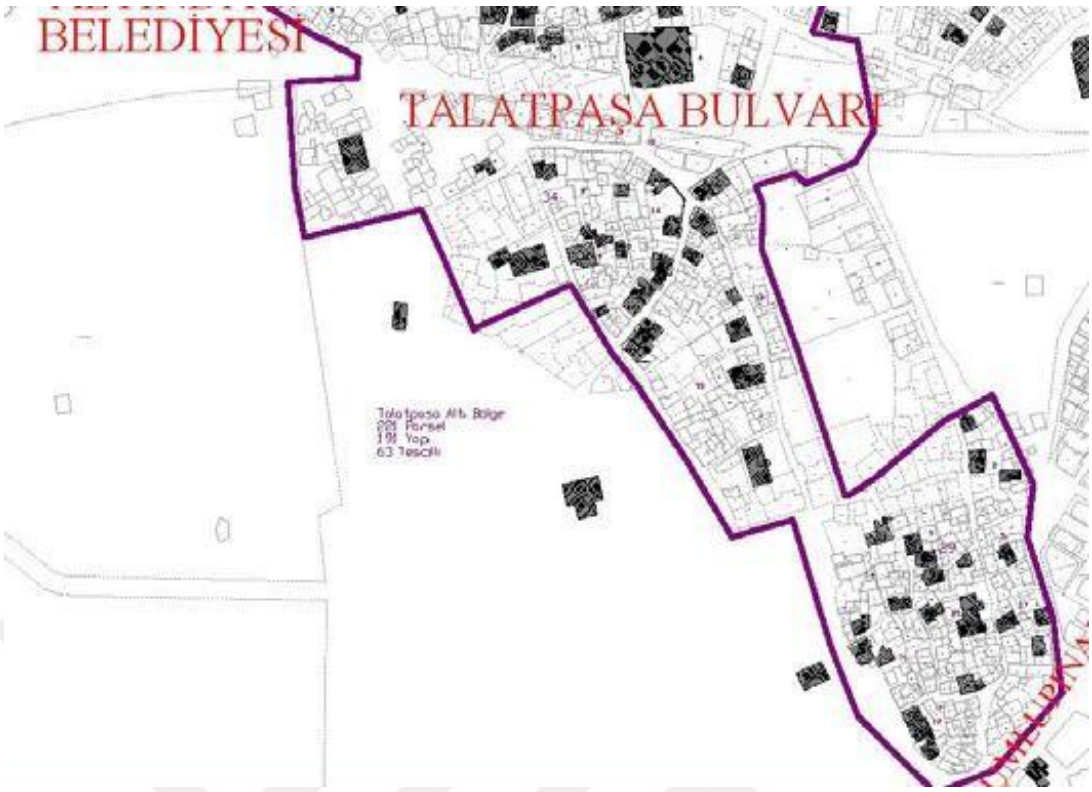

Figure 3.4: Implementation boundaries of Hamamönü Project (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 201).

Conservation and rehabilitation studies initiated in 2006 were carried out in an area of 21.8 ha approximately. The project area constituted 12% of the historic urban site of Ankara. The total number of building lots is 771, there are 752 buildings with different uses in the area and 201 of these buildings are registered (Arslan, 2012: 82).

Hamamönü carries important historical, cultural, social, and physical characteristics and includes an important part of the traditional housing stock of the city. It can be said that the problems of conserving, using, and maintaining the original values are parallel to the problems experienced throughout the country. Nowadays, when we are approaching the 100th year of the foundation of the Turkish Republic, the projects planned to be carried out in the conserved historical areas are more permanent and can be transferred to future generations in better conditions, the plans and programs should be more systematic with sustainable and capital scale connections. Within the scope of this thesis, it is aimed to understand the resilience status of protected historic areas. The significance of the chosen site that is Ankara-Hamamönü provides remarkably in terms of;

1. How development plans affect the old city centers throughout the development of the cities
2. The challenges against the historic urban areas
3. Understanding the changes observed in old historical city centers and their causes
4. The conservation approaches in Turkey to protect historic areas
5. The conservation applications in large scale
6. The positive and negative outcomes of the preservation and conservation applications
7. The current status and resilience level of Hamamönü

Hamamönü Street has been chosen as the spine of the study area, and the above-mentioned Kabakçı Mansion, Tacettin Dervish Lodge, and Mehmet Akif Ersoy's residence are aimed to be included in this area. Talatpaşa Boulevard in the north, Hacettepe University main campus in the south, Sarıkadın Street in the east, and Hacettepe University library in the west constitute the boundaries of the study area in Hamamönü.

Hamamönü which has been used for residential purposes from the 15th century providing a unique example to understand the layers of the historic urban context. It is important to understand the changeable urban layers to be able to protect both tangible and intangible urban heritage. Moreover, it is also necessary to create a resilient environment to adapt to those changes

The scope of this thesis is aimed to understand the resilience of the level of Hamamönü and its immediate surroundings to create a base for further projects.

3.1Rehabilitation Project of Hamamönü

At the beginning of the Early Republican Period, when the Ulus region was the city center, Hamamönü kept its original functions. However, the change in housing typology with the spread of multi-storeyed apartment buildings and the shift of the city center towards the west caused the loss of use and users in the Hamamönü area.

Although several years have passed since the area was registered as an urban site a thorough conservation plan has not been prepared by the local municipality. As a result, the destructive effects of being ignored caused the loss of an important part of the cultural heritage in the area. With the cancellation of the latest plan in 2006, the general administration of the site passed to Ankara Metropolitan Municipality.

As several problems occurred in Hamamönü after the implementation of the conservation and rehabilitation project, it is necessary to understand the process through the comparison of the past and the present to find solutions for the future.

3.2 Before the Rehabilitation of Hamamönü

Hamamönü, (which means 'the front of the bath') took its name with reference to Karacabey Bath constructed in 1440, which was an imaret (public charity) built as a part of a complex by the commander of Sultan Murad the IIIrd Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010).

The complex and its surrounding area have always been used actively from the beginning. Although there is a lack of information about the foundation of the neighborhood until the 1800s, it is known that the area has been used as a residential area continuously since then. According to the earliest map of Ankara by Von Vicke dated 1839, the urban fabric of Hamamönü is legible and mentioned as a housing area. It can be expected that the identity of the neighborhood developed on its religious and ethnic origins.

Even though the city of Ankara had a population composed of Jews and Christians since 15. Th century (Arslan, 2012: 35), Hamamönü was a Muslim neighborhood depending on the mosques and Taceddin Dergah in the area.

In the Ottoman period, the residential urban fabric was created by using different techniques in accordance with the climate, material availability and material accessibility. For the case of Ankara, the main residential housing built with 3 layered

1. A masonry base
2. A timber frame section
3. A timber roof

According to the Şahin Güçhan, 'the masonry base, which is usually composed of the ground floor and foundations, is made entirely of stone or stone and mud brick according to the local conditions. In some earlier houses in Ankara, in Beypazarı,' The first layer used as a basis,the second layer of the buildings which are the main walls of the ground and upper floor are built with mudbrick .The wooden lintel and 'Timber lintels, which are secured with tie beams, are placed on the inner and outer surfaces of the main walls'(Şahin Güçhan, 2017:14). The dwelling at Dutlu Street no. 21 (Figure 3.6, Figure 3.7, Figure 3.8) represents a significant example to understand the general typology of traditional residential architecture in Ankara, as it shows the common use of the materials such as; wood, stone, mudbrick, and roof typology as a hipped roof covered with 'alaturca' type of tiles (Tunçer, 2002). Narrow vertical-sliding windows which are mostly used on the upper floors to provide light and view, and are more suitable in terms of privacy with wooden material also show authenticity. Types of structural supports under the projections are sometimes of *eliböğründe* type or 'ahşap bindirme' in the Hamamönü region (Arslan, 2012: 92). Two-story,(Figure 3.5 and 3.6) three-storey (Figure 3.9 and 3.10), and rarely single-story high residential buildings are located and shaped according to the topography and the environmental relations of the parcel with its surrounding. All the buildings in one parcel are built to be used by one extended single-family.

Figure 3.5: Structural system details from the houses at Dutlu and Sarıkadı Streets (Çakıroğlu, 2021)

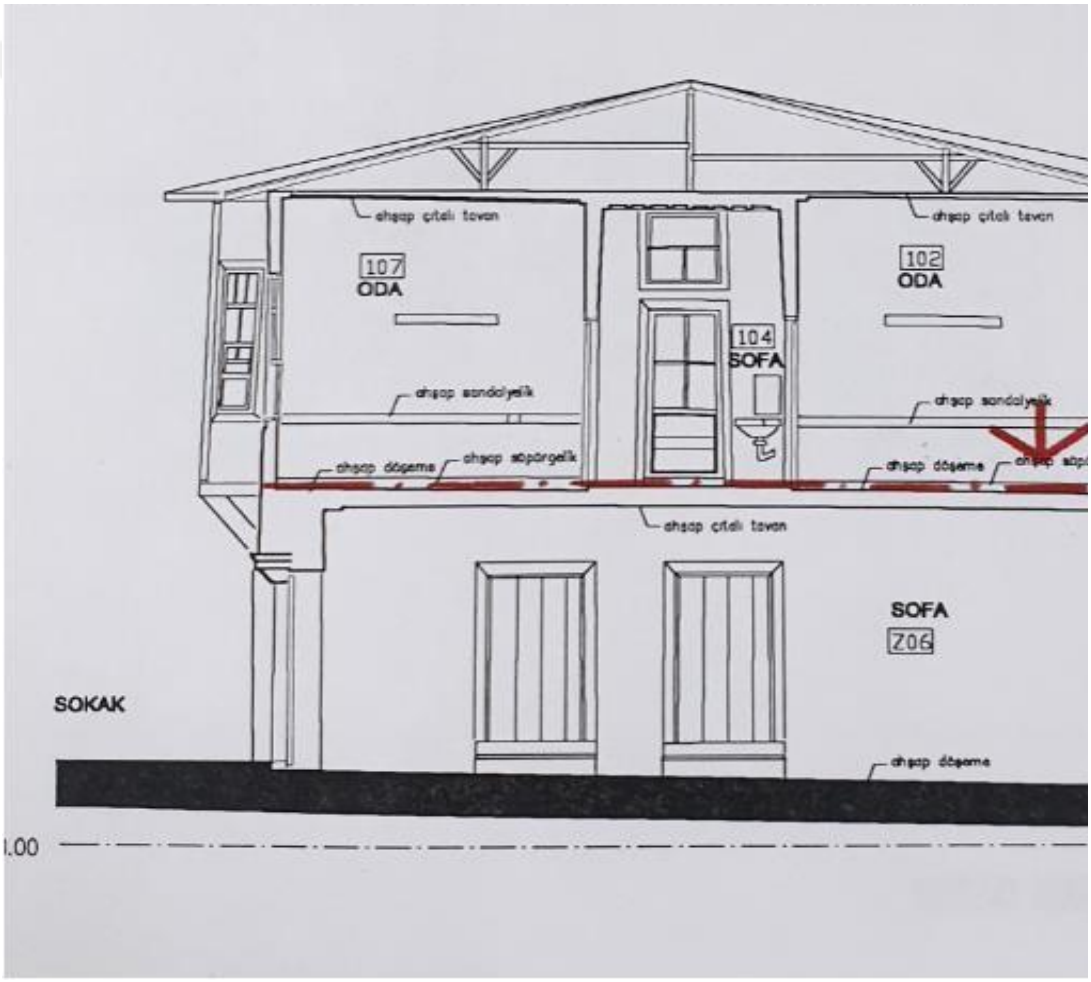

Figure 3.6: Section of the house at Dutlu Street no:21 (Önen ,2000).

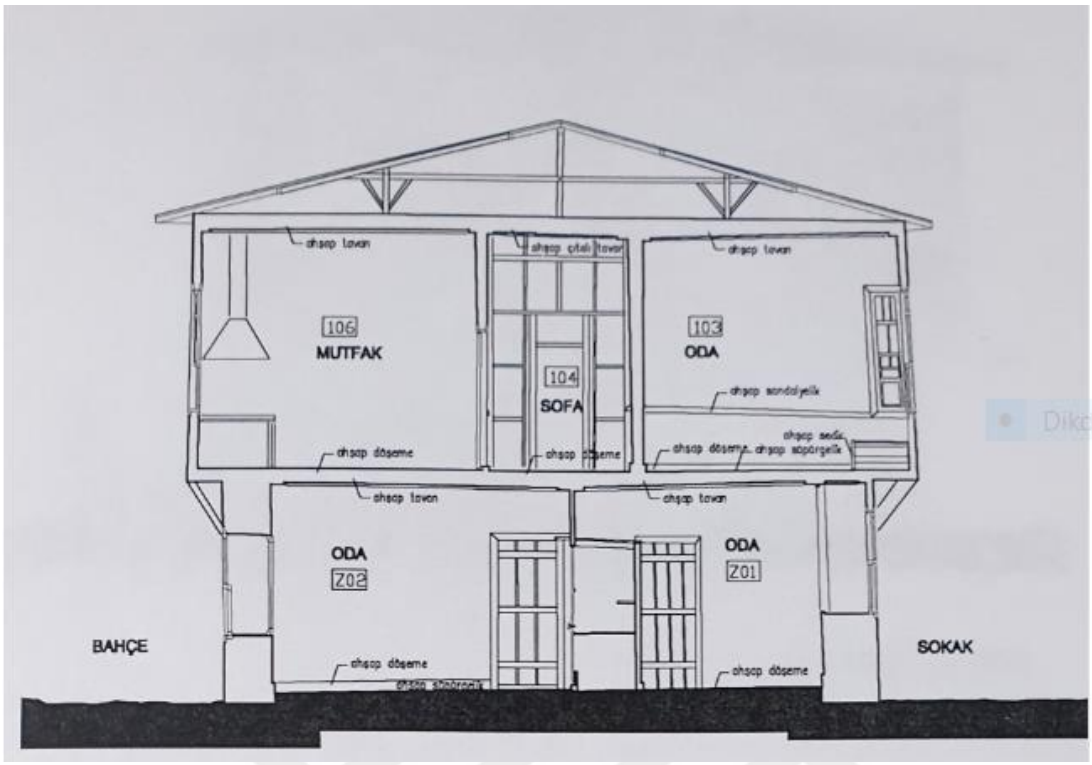

Figure 3.7: Section of the house at Dutlu street no:21 (Önen 2000).

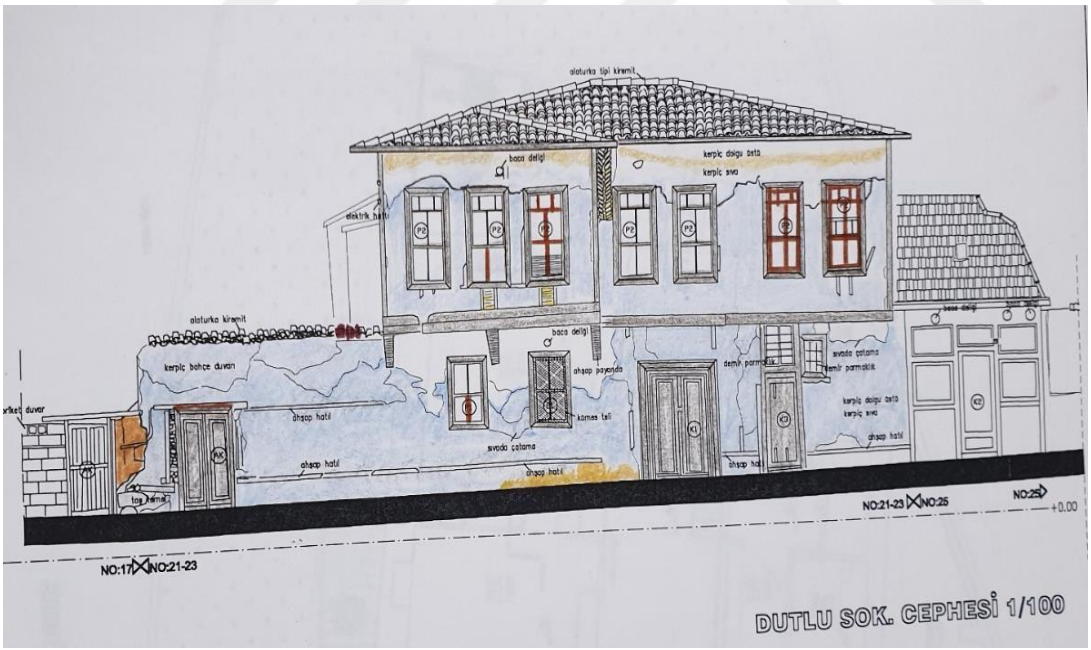

Figure 3.8: Elevation of the house at Dutlu street no: 21 (Önen 2000).

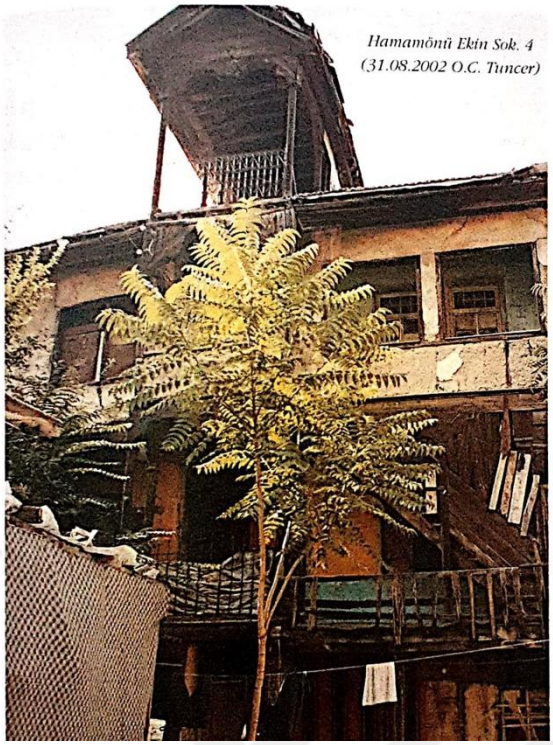

Figure 3.9: Examples of traditional architectural elements in Hamamönü (Tunçer, 2002: 87-289) (Left)Example of cihannüma (rooftop room). (right) Examples of Sundurma (room extension)

The examples of both interior and exterior structural elements (Figure 3.11) of the traditional Ankara houses shows the authenticity of the traditional construction approaches. *Sundurma* provides a wide street view which is important for security concerns. *Cihannüma* is an aesthetic viewing room on the top floor under the roof. The materials of the interior elements also followed the materials of the structural elements. According to the site analysis studied in the Hamamönü area by Orhan Cezmi Tunçer and his students, the architectural value of Hamamönü depending on the interior and structural qualities of the houses shows remarkable examples of the tangible cultural heritage in Ankara. It also shows the existing conditions of the daily life of Hamamönü in the 2000s.

Figure 3.10: Examples of traditional architectural elements in Hamamönü (Tunçer, 2002: 87-289) (Left) View of a cihannüma from the street, (Right) Example of stair rails

Figure 3.11: Examples of traditional architectural elements in Hamamönü (Tunçer, 2002: 87-289)(Left) Dutlu Street no: 19, (Right) Example of kitchen cabinet

For the case of Hamamönü, Tanış Street, İnanlı Street, Fırın Street, Hamamönü Street, Mehmet Akif Ersoy Street was selected as research area. Even though the building scales vary, the main structural typology shows similarities in terms of building organization material use (Figure 3.12). Moreover, before the rehabilitation project, there are several types of research conducted by the different parties that showed the similarities in housing units. As previously mentioned, the use of the traditional housing techniques were abandoned because of lack of craftsmanship and material costs. Instead, concrete and plastic-based materials have become common.

Even though the general material tendency has changed, the research shows that until 2006 the main housing typology of Hamamönü remained original.

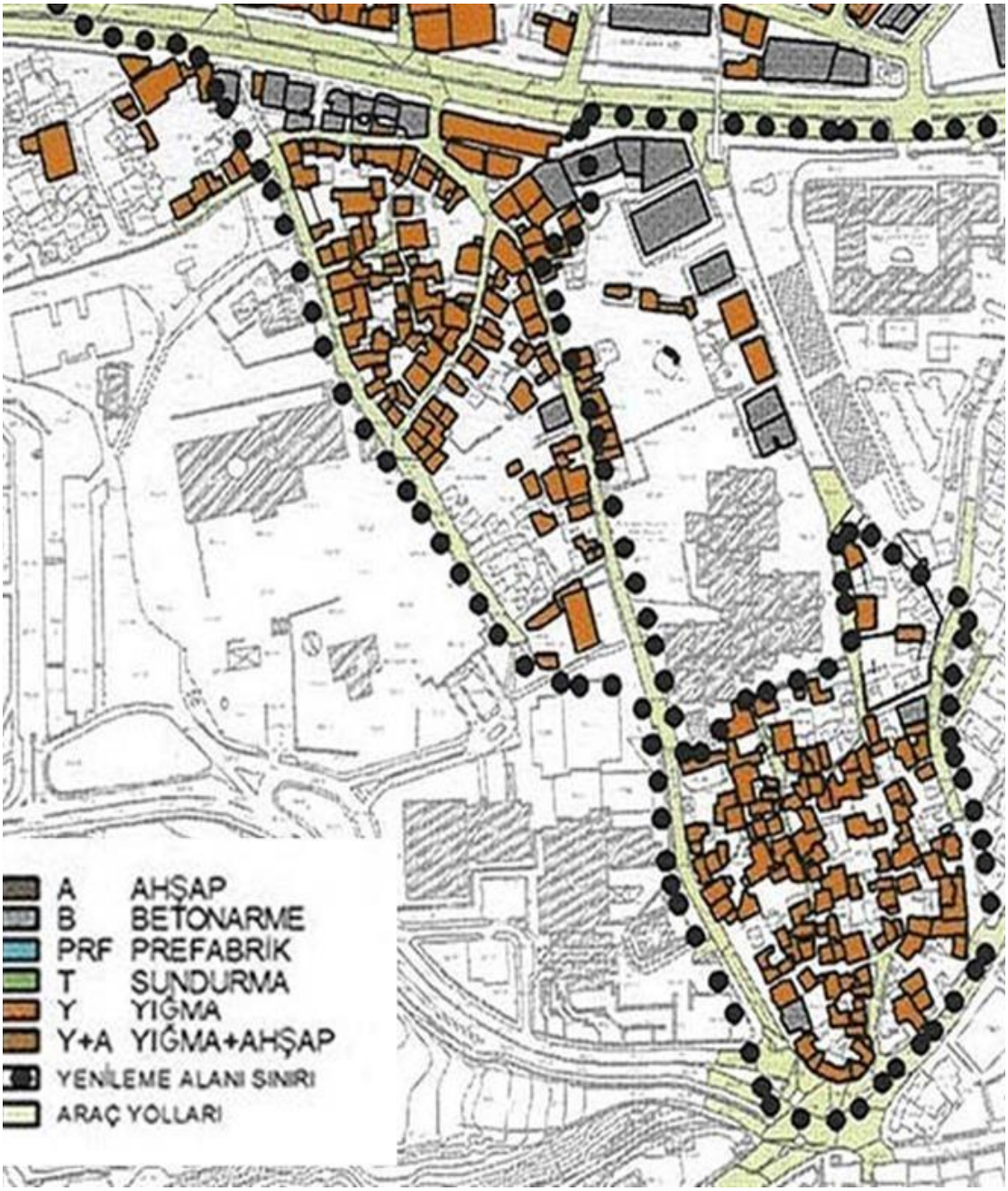

Figure 3.12:Analysis of Structural Systems and Materials of Buildings in the study area before the Rehabilitation Project (Metropolitan Municipality Archives, 2006, access date: 2020)

After a decade, the urban fabric of Hamamönü started to change irrevocably. As seen in the photographs Figure 3.13 and Figure 3.14, the deteriorations, deformations, and destructions of the original materials and the structures of the aging historic buildings, as well as the later period additions, caused many conservation problems. Problems at the plasters on the facades, at the mortars as bonding materials, architectural elements like windows/doors, and others are seen frequently. Spatial organizational changes caused by the usage, is one of the most common physical problems of the buildings at Hamamönü. These changes in the buildings caused irreversible losses of original qualities (Büyüköz, 2019: 10).

Figure 3.13: View from M. A. Ersoy Street in 2006 showing the collapsed buildings due to negligence in the study area (Arslan, 2012)

Figure 3.14: View from Hamamönü quarter 2006 in the study area (Arslan,2012)

When the Hamamönü area is analyzed today, it is observed that the current problems arise for more than one reason. About the physical problems, the original façade qualities of the buildings have been lost through alterations, and deteriorations both due to functional transformations and unqualified interventions.

Figure 3.15: View from Hamamönü quarter 2006 in the study area (Arslan, 2012)

The first initiative of site analysis at Hamamönü was carried out by Hassa Architecture in 2006, the main initiation behind it to determine the Hamamönü's status in terms of physical space. It was prepared as a prerequisite for the preparation of the Conservation and Rehabilitation Plan tendered by the Ankara Metropolitan Municipality, which then was canceled. Although the Plan was canceled, the outcome of these analyses is still informative (Metropolitan Municipality Archives, 2006).

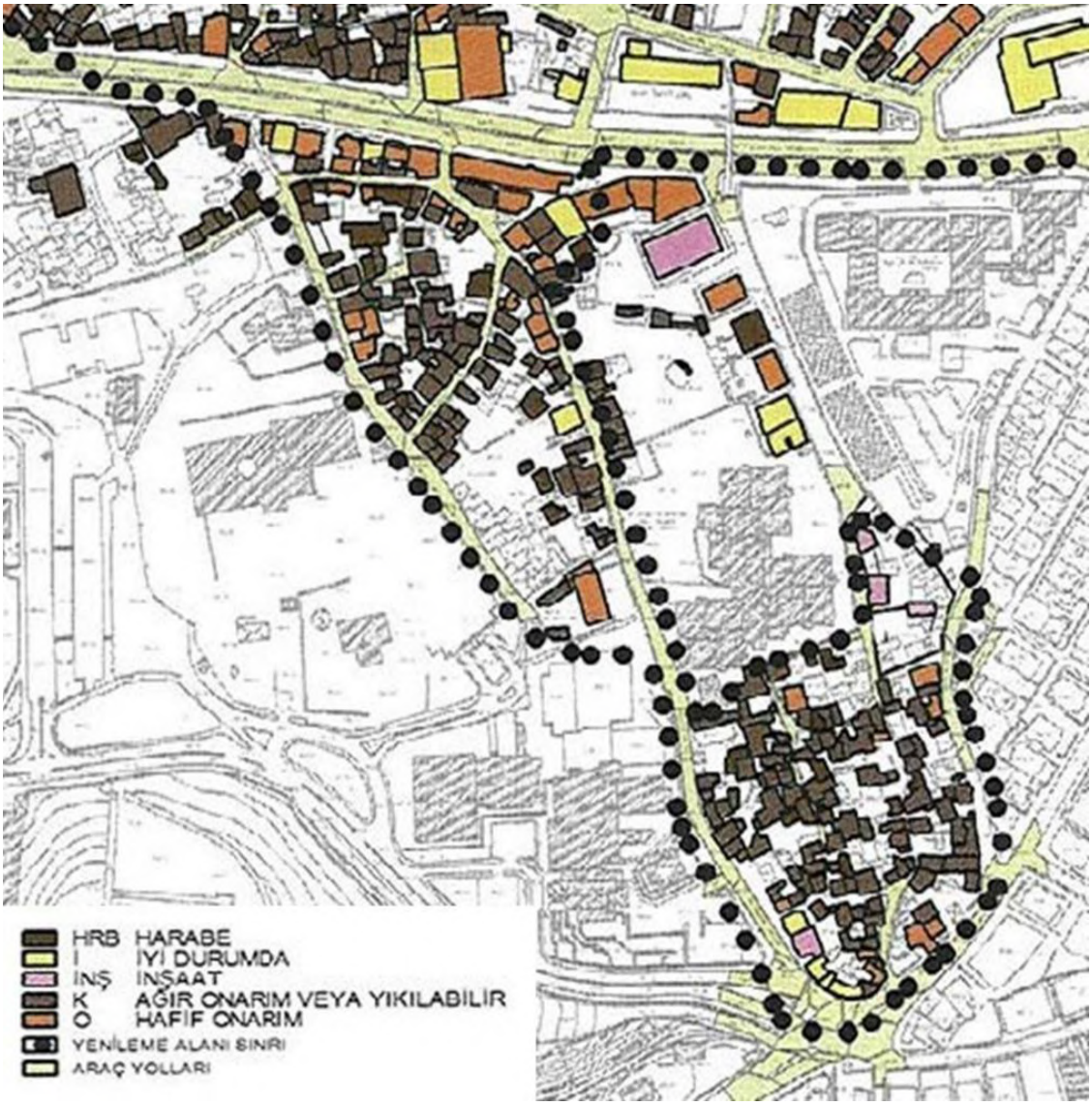

Figure 3.16: Analysis of Building Conditions in the study area before the Rehabilitation Project (Metropolitan Municipality Archives, 2006, access date: 2020)

This set of analyses aimed to show the building and environmental qualities of the Hamamönü area. Even though most of the buildings were marked as 'ruins' in the related analyses, the buildings are still in use in this period. Also, as Talatpaşa Boulevard is one of the main transportation lines of the region, the buildings by this boulevard were marked from good condition to average. One of the main reasons for the deterioration of the buildings and neglect was due to the changing status of building occupancy and users. As most of the buildings were abandoned by the original owners in time, and/or ownership status proliferated by the inheritance with the second or third generation heirs, the necessary maintenance and repairs were ignored. In addition, the

construction techniques used in today's conditions have begun to be used in the traditional buildings. When the restoration was necessary for residential buildings, the original timber structures with mudbrick infill were repaired by cement, incompatible new annexes were built next to the main building to be used for commercial purposes. The area was disturbed and damaged at urban and architectural scales. In this vulnerable period, lack of care and ignorance caused the space to be used by the invaders and handed it to the people who sought profit in the region. The more rental income has been received, the more original ownership pattern has changed and the abandoned houses started to invade the area (Tiryaki, 2014: 131).

About the ownership status of Hamamönü before the Conservation and Rehabilitation Project, 33% were used by the owners, 57% of them were used by the tenants and almost 10% of the houses were used by the people which have no contracts with the building owners, (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 526). Before the Project, the rents were quite low at Hamamönü compared to the other parts of the city ; they varied between 51 YTL and 150 YTL in 2006, at the same time the average rents were between 350-500 YTL at different parts of Ankara (Arslan, 2012: 101). Turkish families used to be quite crowded and the houses were used by these single, but extended families. Whereas in 2006, the profile of the residents of the dwellings started varying. Before the rehabilitation project, only 51,7% of the buildings were used for residential use by single families. The rest of them were rearranged and divided for multiple residential units. This was an indication for the change of buildings at the inside (Tiryaki, 2014: 155). Since the 1980s, when Hamamönü area was declared as an urban conservation site, the existing conservation approach caused the buildings to be left untouched, or to be exposed to wrong interventions for which severe punishments were applied, making restoration works extremely difficult. The problems were not only related with the qualities of the buildings, but also with the historic environment. In this process, many streets have lost their original pavements and other urban characteristics. Lack of infrastructure caused several problems related to sanitation and health safety (Tiryaki, 2014: 124-127).

One of the major problems before the implementation of the Conservation and Rehabilitation Project was lack of security, (Figure 3.17 and Figure 3.18) which was a problem related to both ignorance, and also narrow and dark streets without necessary lighting, bringing the problem of pickpocketing and robbery (Yabacı, 2012: 27)

Figure 3.17: Sarıkadı Street as an example to the streets with security problems Altındağ Municipality Archives, 2006, access date: 2021)

Figure 3.18: Fırın Sarıkadı Street as an example to the streets with security problems (Altındağ Municipality Archives, 2006, access date: 2022)

The original owners in time, and/or ownership status proliferated by the inheritance with the second or third generation heirs, the necessary maintenance and repairs were ignored. In addition, the construction techniques used in today's conditions have begun to be used in the traditional buildings. When restoration was necessary for residential buildings, the original timber structures with mudbrick infill were repaired by cement, incompatible new annexes were built next to the main building to be used for commercial purposes.The area was disturbed and damaged at urban and architectural scales. In this vulnerable period, lack of care and ignorance caused the space to be used by the invaders and handed it to the people who sought profit in the region. The more rental income has been received, the more original ownership pattern has changed, and the abandoned houses started to invade the area (Tiryaki, 2014: 131).

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Functional changes at building and environmental scales at Hamamönü caused important problems in the protection of cultural heritage. Functional changes in the buildings were mostly from residential to commercial.

On the other hand, sof (a traditional type of fabric woven from mohair) production is considered as an important cultural heritage of Ankara. It was produced around the citadel, in the old town region, and at Hamamönü as well. Physical changes at both building and environmental scales affected the conservation of intangible cultural heritage. Another problem was about its administration, as the region is defined within the urban conservation area of Ankara. Lack of a participatory management in the site caused the residents to remain insensitive and ignorant about the conservation of heritage sites.

The changes of Hamamönü are observed not only structurally, but also environmentally, especially related with the street qualities. The street patterns, integration levels, and connections have also changed since 1924 (Figure 3.19).

There are several reasons behind why the street orientation has transformed which are;

- Loss of the buildings that define street boundaries,
- New construction works in accordance with new development plans
- Expropriation
- Infrastructure activities were mainly the reasons behind the changes

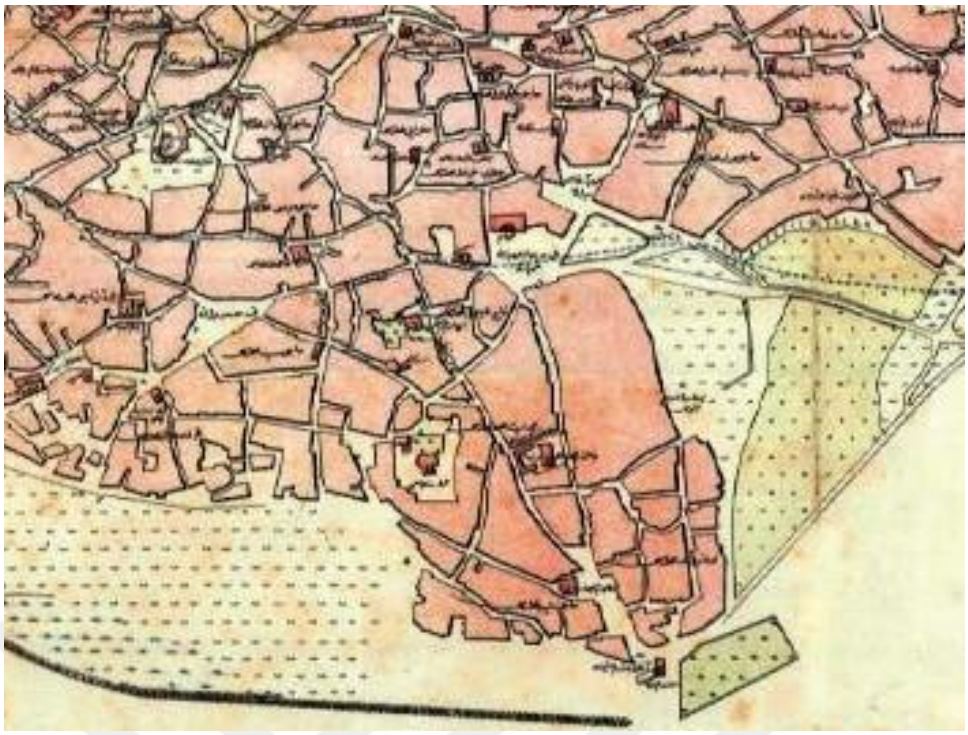

Figure 3.19: 1924 dated Ankara Map (Ahmet Yüksel Archives)

According to Mıhçıoğlu;

Şehremaneti Map drawn in 1924 is a more detailed map with a 1/4000 scale. It has originally three versions having different accents on; residential urban blocks, major public buildings, infrastructure, and circulation channels. This map is relatively more precise when compared to the 1839 Von Vincke Map (2010).

The 1924 map shows the solid fabric of the Hamamönü region precisely. The reason for the lack of regular planning work done for Ankara until that time may be due to the city's being a regular Anatolian city. However, planning and inventory studies started to be handled at different scales after it became the capital of the new Turkish. Republic.

In 1923 when Ankara became the capital city, it is known that there was a housing shortage (Tankut, 2001: 11). During the same period, Hamamönü was mostly used as a residential area by the tradesmen and for craftsmanship activities. Moreover, new urban planning studies carried out in the following periods directly affected the transformation of the area.

Several decisions had a great impact on the development of the Hamamönü area including the construction of the Hacettepe hospital and campus complex. Moreover, one of the main transportation networks of today's Ankara on the northern part of Atatürk boulevard and Talatpaşa boulevards directly change the arrangement of the residential urban blocks of the Hamamönü region (Figure 3.20)

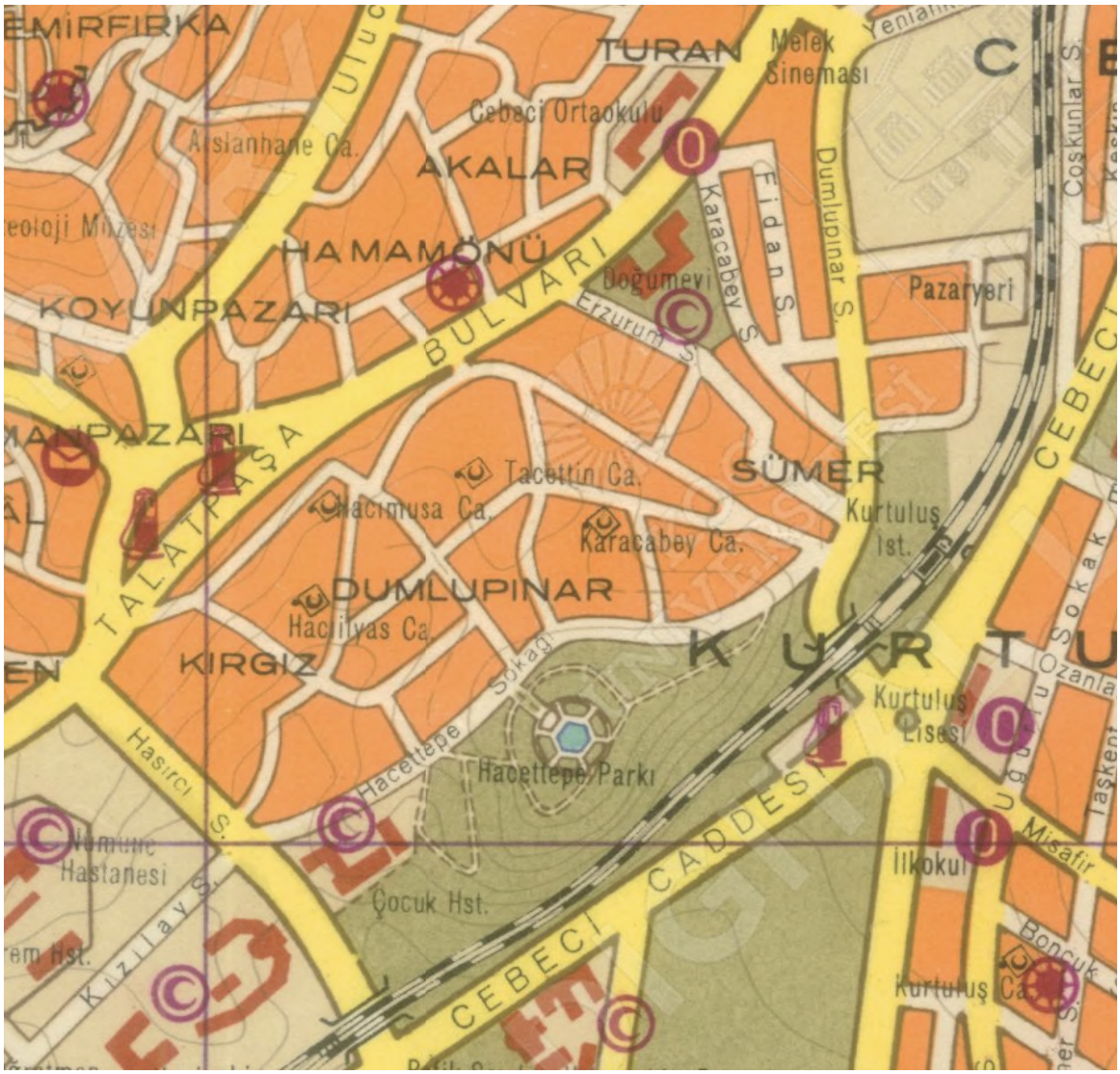

Figure 3.20:1959 dated Ankara Map (Vekam Archives)

It is important to note that the urban fabric of Hamamönü is mainly affected by the Hacettepe University complex (Figure 3.21), even though it was only started with a single building it became a whole complex that dominates the area. Both physically and socially.

Figure 3.21: 1972 dated Ankara Map (Vekam Archives)

As can be observed from the maps, Hamamönü area was under the occupation of Hacettepe University campus after 1975 and, and the housing stock started to diminish. The existence of Hacettepe's main campus brought another change in terms of the user profile. Before Hacettepe University, Hamamönü was used mostly by the local people and the people who came to visit Taceddin Dergahı and Mehmet Akif Museum. In terms of tourism, there were relatively few known tourist spots (Büyüköz, 2019: 35).

After the Hacettepe main campus, Hacettepe park has been changed from a public space to a parking lot in the campus. As Hacettepe has been one of the leading hospitals in the country, patients who came particularly for the hospital, started to spend time at Hamamönü. After a while, the administration of the university decided to expand the boundaries of the campus by constructing a dormitory for students which accelerated the change in many ways. The user profile of Hamamönü expanded shortly including from students to doctors, patients, and their attendants. Although the original landowners left the region, Hamamönü continued to operate as a center hosting different users and uses (Arslan, 2012: 94).

In 2006 regarding the use of the buildings, 65% of 752 buildings within the Hamamönü Rehabilitation Project area were residential, 20% were commercial, and less than 1% were the other uses. According to this data, Hamamönü maintained its original functions to a large extent. The occupancy condition of these residential buildings was; 67.68% were occupied, 8.36% were vacant, 17.82% were under construction, and 6.14% were annex buildings (Arslan, 2012: 95)Not repairing the traditional houses due to the financial incapability of the new residents from a lower income group, widespread and severe deterioration in the area (Arslan, 2012: 96). Consequently, the analysis of the Hamamönü Rehabilitation Project pointed at 74.84% of residential buildings that required severe repairs (Arslan, 2012: 96). In addition to the loss of tangible cultural heritage, losing the physical environment causes loss of intangible cultural heritage which is the production of sof material. As it is previously mentioned sof has a great impact on the social and economic life of Ankara. The production of sof fabric (comprising the phases of washing, drying, spinning, and weaving) was commonly carried out on the sofa and the courtyard (Önen, 2000). When examined in this context, it once again reveals the importance of the mutual existence of both tangible and intangible heritage together for the sake of conservation.

Figure 3.22: Sof production at home (Tunçer, 2002: 55)

3.2.1 Rehabilitation Phase

In 2006, the project called Ankara Historic City Center Planning, Improvement and Preservation Project was carried out at Hamamönü, Hacıbayram and Ulucanlar quarters with the scope of regeneration of architectural and environmental improvement. The project was initiated by Altındağ Municipality, Metropolitan Municipality, Hacettepe University, and the General Directorate of Foundations to rehabilitate the area and revitalize the economic, commercial, and cultural activities (Büyüköz, 2019: 13).

This project developed for the Hamamönü area titled as 'Altındağ Municipality Hamamönü Historical Preservation Project' was handled with conservation ideals and completed in 2010. Strategies have been developed and implemented till today to highlight the historical value of the Hamamönü area and its surroundings, which had been ignored for years. The analysis studies conducted in this context enabled the evaluation of the situation in the region in different ways.

The Hamamönü Rehabilitation Project started at Dutlu and İnci Streets as the first phase. As İnci Street is located in the northern part of Karacabey Bath and implemented afterward, this study mainly covered the first phase of the project.

Dutlu Street has been chosen for the study area. In addition to Dutlu Street, Mehmet Akif Ersoy Street, Fırın Street, İnanlı Street, Hamamönü Street also studied in the context of this study. Moreover, the Mehmet Akif Ersoy Recreational Area was implemented during the rehabilitation project that was also included in the area.

As the Hamamönü Rehabilitation Project is one of the leading projects in Turkey in terms of preservation and rehabilitation of urban areas, analyzing this project, first of all, will provide an understanding of protection and preservation, applied throughout Turkey.

The process and management model of Altındağ Municipality Hamamönü Historical Preservation Project also originated according to inventory data of previous works. (Arslan, 2012:109). Hamamönü project is a long-term project that was initiated in 1980, long before the Altındağ Municipality's Hamamönü Historical Preservation Project, however, the preservation and rehabilitation plans would never be applied properly because of complicated legislation. (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu,2010: 53).

The process and management model of Altındağ Municipality's Hamamönü Historical Preservation Project depended on the inventorial data of the previous studies. (Arslan, 2012: 109) Project for Hamamönü and its surroundings could not be completed.

After 2004, with the support of the Turkish Ministry of Culture and Tourism and the law Ankara KTVKB dated 10.12.2010 which is valid today and in line with the 'transitional period construction conditions' determined by decision no. 5612, protection interventions keep continuing. According to the transitional period construction conditions, the main administration of the region and project was transferred to local governments. In this case, Altındağ Municipality becomes the main responsible and administrator for the case of Hamamönü (Tiryaki, 2014: 121).

In the Hamamönü area, the main protection approaches were determined by the Altındağ Municipality, as the Municipality preferred to work in coordination with Hacettepe University, and Ankara Metropolitan Municipality, the project partnerships were established. Main initiatives determined for Hamamönü restoration, reconstruction renewal, and rehabilitation process were approved by the Cultural and Natural Heritage Conservation Board (Arslan, 2012: 110).

The project process will be examined within the scope of this study, carried out on a street basis within the context of the study area.

The first phase of the project was the Dutlu Street Project which was prepared by the Önen Architecture and asked by the Ministry of Culture and Tourism. In terms of the project, firstly the current situation of Dutlu Street has been studied. Restoration and renovation decisions were made especially according to the determined structural and material problems. Projects have been prepared in 1/500, 1/200, 1/100, 1/50, 1/20, and 1/10 scales. In the projects realized by Önen Architecture in 2000, the facades of the buildings facing the street were handled.

Detailed plans and elevations provide us with remarkable information to compare the current status and before the state at 2006 of Dutlu Street. And enable us to understand the level of transformation of both physical spaces and functional changes.

Figure 3.23: Site Plan of Hamamönü Rehabilitation and Improvement Project Çakıroğlu, 2021)

The project site is given above at Figure 3.23, the line shows the street that has been examined in terms of this thesis project.

The Mehmet Mehmet Akif Ersoy Street is marked with red

The Hamamönü Street marked as green (northern border)

The Fırın Street marked as blue

The İnanlı Street marked as gray

The Tanış Street Marked as purple

The Dutlu Street marked as white

The Culture Center marked as black

The southern part of the sarıkadı street marked as pink

Figure 3.24: Northern street elevation of Dutlu Street (Önen , 2000)

Figure 3.25: Plan of Dutlu Street (Önen, 2000)

Figure 3.26: Southern street elevation of Dutlu Street (Önen, 2000)

Dutlu Street Improvement Project (Figure 3.24, 3.25, 3.26) was approved by the Regional Board for the Protection of Cultural and Natural Assets on 01.06.2006 by the decision no. 1597. The project included the facade improvements of the buildings, technical infrastructure renewal, street pavement renewal, and urban furniture additions and renewal. In this context, the façade improvement constituted the basis of the project in terms of Dutlu Street (Arslan, 2012: 113).

Figure 3.27: Before and after views of Dutlu Street (Yabacı, 2012)

In the case of Dutlu Street before the implementation project, there were only six buildings registered, (Figure 3.28) used for residential purposes belonging to private persons according to the data coming from the project by Önen in 2000.

Figure 3.28: Registered buildings in dark color around Dutlu Street (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı Araştırma Raporu, 2010: 201).

During the Celali Rebellions some parts of the city walls were burnt down. Moreover, Karacabey Bath, including some parts of the Hamamönü region, were partially burned down also. The buildings existing today were constructed in the 17th century, which represent the traditional Turkish housing style. (Önen, 2000).

Even though the residential buildings include the characteristics of classical Turkish architecture, their comfort conditions do not meet the current needs of the residents. The expectations of uninterrupted hot water supply, thermal insulations were the main expectations of the residents. Additionally, the electricity shortages during the winter time and the necessity of installing a stove is one of the major complaints as well.

Table 3.2:Information about Dutlu Street Building Programs (Önen, 2000)

	Absent (%)	Insufficient (%)	Present (%)
Kitchen	9,4	31,4	59,2
Bathroom	25,6	26,7	47,7
WC	-	55,1	44,9
City Water Supply	0,7	8,7	90,6
Electricity Infrastructure	-	-	100
TV	1.4	-	98,6
Telephone Infrastructure	25.3	-	74,7
Heating Infrastructure	100	-	-

For rehabilitation, the old structures in the area required structural repairs mostly structurally and rehabilitation to enhance the comfort conditions internally. These two aspects were prioritized to keep the user's in the area in the long run. Yet, the implementation process did not cover the interiors of the buildings; it was not a thorough intervention. Moreover, the façade improvement studies included only painting and replacement of windows and doors, without any insulations or structural reinforcement. There was no planned major and in-depth intervention in terms of efficient heating or alternative insulation solutions. Photographs from 1999 (Figure 3.29) show that the electricity poles provided the power grid above ground, which is not seen as appropriate for a historic environment, disturbing its authenticity. During the implementation of the rehabilitation project, the power grid has been taken underground during the street pavement renewal.

For the pavement renewal, a paving brick material has been used as street pavement in Hamamönü. However, we still find original pavement material in several different places in Ankara streets which is a 10cm by 20 cm granite-based stone. Not keeping the original material for the street pavement makes this intervention open to criticism at street scale in terms of sustainability (Arslan, 2012: 116).

Figure 3.29: Street view from Dutlu Street in 1999 (Tunçer 2002: 297)

For the case of Dutlu Street, fortunately, the site analysis report dated 2000 by Önen provides the structural and material information, as well as the social and demographic structure of that time. In the neighborhood, there used to live twenty families with a total of 60 people. About the ownership status of the houses, private ownership was around 40 percent. Moreover, several commercial businesses from various professions existed in the area including tailor, butcher, shoemaker, nut shop, haberdashery (called 'tuhafiye' in Turkish, where small, but necessary items related to sewing and knitting, as well as small gift items are sold), café, and internet café (Önen , 2000).

Dutlu Street is quite close to the Hacettepe University Campus and there were no lodgings and residential buildings within the campus area were mainly replaced by the dormitory library and the hospital buildings. There were no social or cultural centers that would attract young people around. The rehabilitation project, considering just the exteriors, encouraged the dwellers to restore the interiors of their houses, but several difficulties such as multiple ownerships and financial problems made that impossible. Before the projects were sent to the council for approval, the owners and the tenants of the buildings in the area were invited to the municipality by notifications (Yabacı, 2012: 55).Approval of the dwellers was not sufficient for a participatory project. Also, they could not afford proper improvements in terms of conservation, cheap and improper materials were used in several cases (Figure 3.30).

Figure 3.30: Examples of material variety at the interiors of the buildings on Dutlu Street (Çakıroğlu, 2021)

From the observation based on the field study and the analysis of the previously collected data, another reason for the interior changes at the buildings on Dutlu Street was the functional changes. Before the rehabilitation project, the buildings were mainly used for residential purposes. Shortly after the rehabilitation project, the main function became commercial.

The increased popularity of Hamamönü after the Project caused higher rental income expectations for the owners. Within the Project, since there were no restoration and reuse projects, the owners transformed the buildings according to their own decisions for their functionally changed buildings (Arslan, 2012: 143). With this transformation to the food service sector, the number of cafes which was only 2 before the Project, has increased immensely, including almost every house.

During the interview study, it is said that the mayor of Altındağ visited the site several times. During these visits, there were plenty of guests accompanied to the major. These guests were no ordinary people but the representatives of the major café and restaurants of Ankara. The idea behind these visits is to promote the site as a touristic point so that those café and restaurants can establish their business on the site. The rehabilitation project of Hamamönü is not the only intention of the developing of the physical environment but rather to create an attraction point for Tourists. And to be able to achieve it, it is also needed to create service facilities for the visitors. This is the reason why the mayor of Altındağ tried to promote rehabilitation projects for the investors.

With the motivation of Altındağ Municipality for this economic transformation, some homeowners have established their businesses, some have transferred them to businesses in anticipation of rent, and a few of them have put their property up for sale directly. It is a fact that the region benefited from this functional transformation to food service sector use economically. However, it became the single dominant sector as the primary income source in the area. Apart from its negative effects on the loss of architectural character of the historic residential buildings, any crisis or important problem in this sector or the economy could have caused an economic collapse in the area.

Even so, the increase in the user number that comes with the functional change was not suitable for the infrastructure capacity in the area. Uses over the limit of the infrastructure had the risks of possible failures in the building systems, leaving the

necessary repair works to the dwellers.

The original kitchens left their places to the tea cookers, the rooms were unified by demolishing the original walls for the sake of creating larger service areas and the toilets/bathrooms were replaced with new restaurant toilets. With the lack of a pre-planned heating system in the area, air conditioning units were installed to meet the heating needs, in a way not compatible with the traditional Turkish architecture.

There are also souvenir shops in the region (Figure 3.31), which are out of the food service sector on Dutlu Street. Their street facades of the buildings at the ground floors have been changed into large shop-windows together with the unified ground floors and redesigned entrances. This is definitely not a correct approach in a conserved historic residential area, forcing the houses to change both in plans and facades.

Another factor that should be taken into consideration is the use of the upper floors of the souvenir shops that are used as a storage area. It is quite common for the two-story buildings on Dutlu Street that the ground floors are used as showrooms and the upper floors as storage areas, left neglected and partially unused in a way.

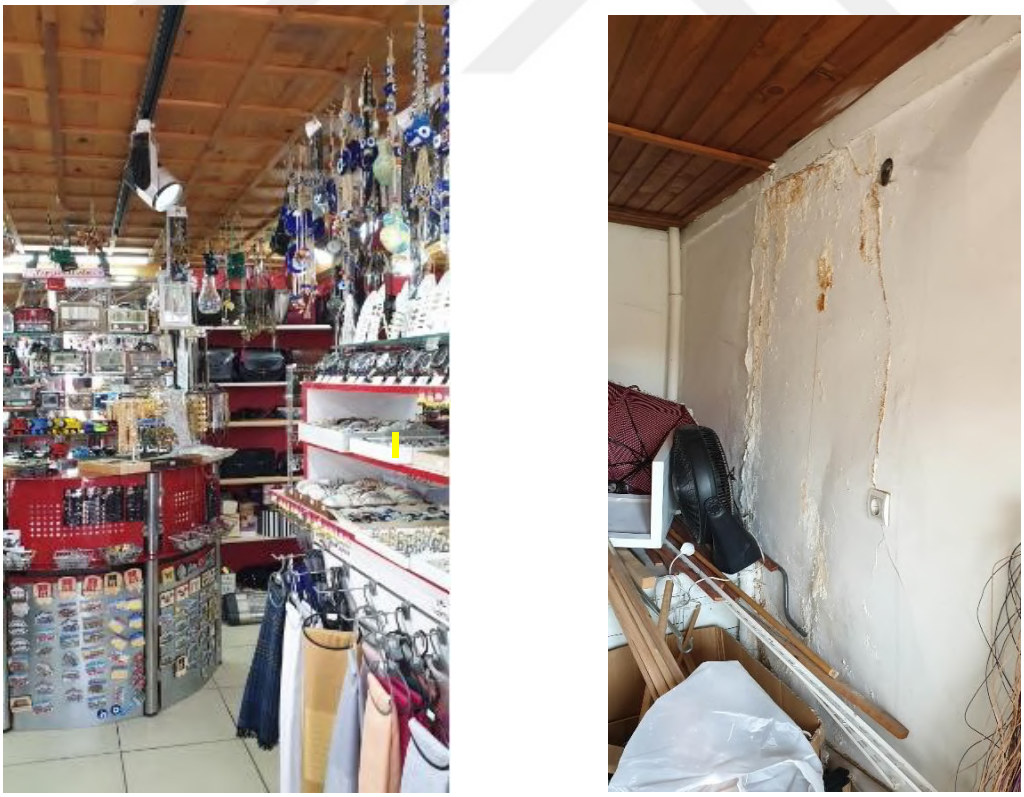

Figure 3.31: Examples of change of function of Dutlu Street (Çakıroğlu, 2022)

The electrical installations that dwellers added to their shops caused changes in the originality of the buildings. In addition, the neglect of maintenance and repair for the buildings caused structural losses. The fact that no insulation is used in the buildings causes temporary insulation methods by the owners in the long term, causing deterioration in the original use of the building. In Figure 3.32, the use of upper floors as storage of the ground floor shops can be seen as an example to many others common in the area.

Figure 3.32: Inappropriate usage of the rooms on Dutlu Street (Çakıroğlu, 2021)

Dutlu Street is a perfect example representing the overall Hamamönü Conservation and Rehabilitation Project, as it demonstrates the changes of function, of users, of structural and infrastructural elements in the area.

For the case of Hamamönü, one of the main rehabilitation goals was to create a commercial attraction point for the visitors. In the vacant area located in the southern part of Dutlu Street was planned as a cultural complex. The project called 'The Culture Street' is a reconstruction project planned and implemented by Altındağ Municipality in 2009 and completed in 2010. The project was prepared as a 'reconstruction project' but it is impossible to call it reconstruction because of the context . The specific

location of the project (Figure 3.33) is building block no. 355, building lots of no. 2, 3, 4, 6, 7, 8, 10, 11, and 48 between Sarıkadı Street and Mehmet Akif Ersoy Street (Arslan, 2012: 140). The complex is imitation of the traditional housing style, but the function is different and the form of traditional housing is also altered in accordance to imitated buildings.

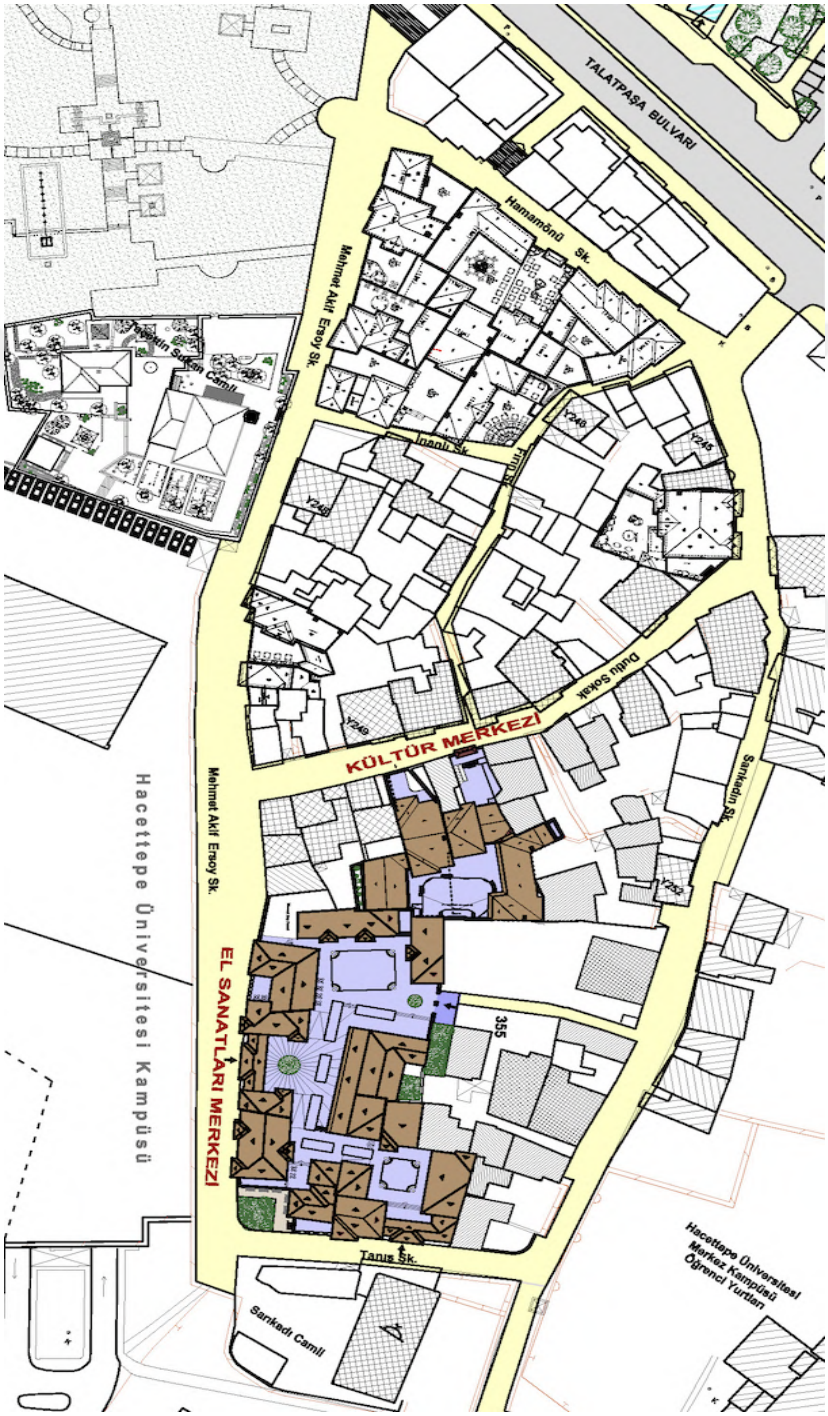

Figure 3.33: Plan of the Culture Street (Altındağ Municipality Archive, accesstime: 2021)

Although Altındağ Municipality carried out the project, the land belonged to Hacettepe University. For this project, a build-operate-transfer model was put into practice according to the protocol signed between Hacettepe University and Altındağ Municipality (Arslan, 2012: 138).

The reconstruction project prepared by Altındağ Municipality was approved by the commission of Cultural Asset Protection Board of Ankara with the decision no. 4973 and no.4975 dated 26.03.2010. The project was constructed by KM Architecture and the aim was to construct buildings imitating the traditional buildings in the area, rather than a reconstruction.

The group of buildings, that were quite similar to the traditional Turkish houses externally, were designed for different functions than the original residential use, such as showroom, exhibition hall, meeting hall, open- air cinema hall. Depending on these functions, the spatial requirements became more complex, ending up with a new traditional-like design (Figure 2.24), which contradicts with the original urban morphology and architectural typology (Arslan, 2012: 138). Additionally, the locations of the new buildings have no relation with the previous situation of this area.

Figure 3.34:An example to fake façades in the area (Yabacı, 2012: 140)

There was nothing left on the site of the cultural center enough to rehabilitate. Therefore, it may be possible to understand the reason behind the new functioning of this group of buildings. However, creating such spaces like this cultural center, not only changes the perception of the original urban and architectural qualities but also deforms them. The courtyard, resembling a khan's, was created at the center of these buildings, also some walls enclosing the area to create entrances to this courtyard are a completely made-up design. The three main entrances are from Dutlu Street, Mehmet Akif Ersoy Street, and from Tanış Street.

The project called Culture Street (Figure 3.35) is a designed area that does not reflect any aspect of the existing urban texture. Additionally, the purpose behind it is to provide a public space for cultural activities. But, because of the controlled access and the gates that are locked or blocked by the shop owners, the accessibility level is not efficient. According to the municipality report, there was nothing left on the site of the cultural center enough to rehabilitate. Therefore, it may be possible to understand the reason behind the new functioning of this group of buildings. However, creating such spaces like this cultural center, not only changes the perception of the original urban and architectural qualities but also deformations them. The courtyard, resembling a khan's, created at the center of these buildings, also some walls enclosing the area to create entrances to this courtyard are a completely made-up design. The three main entrances are from Dutlu Street, Mehmet Akif Ersoy Street, and from Tanış Street. The project called Culture Street is a designed area that does not reflect any aspect of the existing urban texture. Additionally, the purpose behind it is to provide a public space for cultural activities. But, because of the controlled access and the gates that are locked or blocked by the shop owners, the accessibility level is not efficient

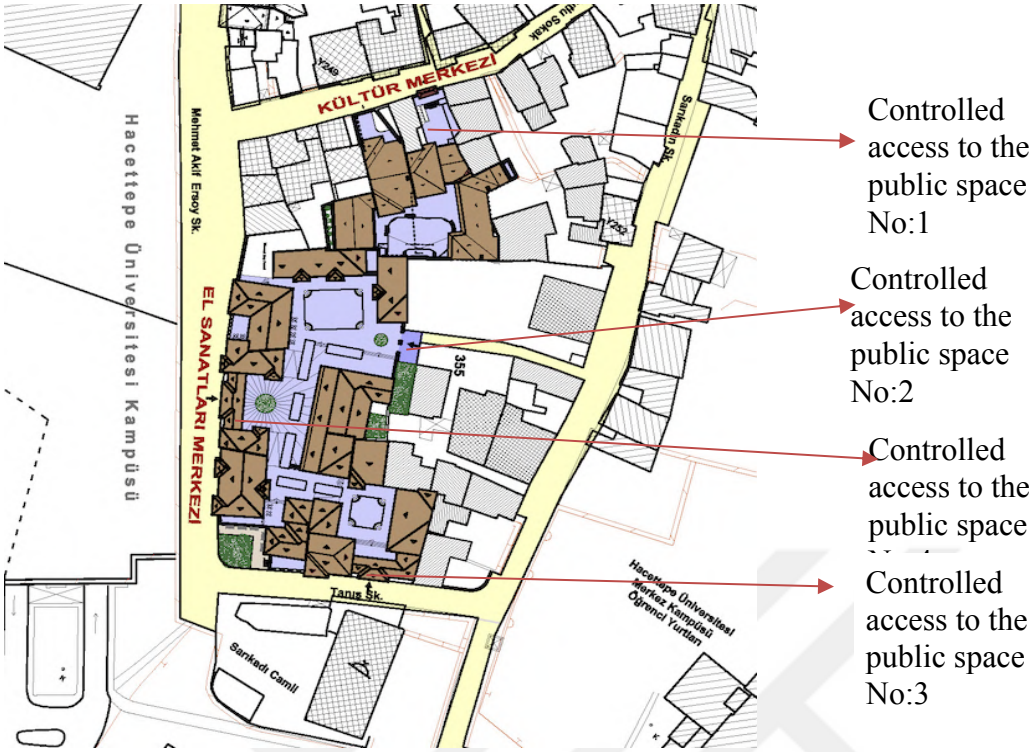

Figure 3.35: Plan of the Culture Street, Altındağ Municipality Archive, accesstime: 2021

Culture Street is a shift in the texture of the neighborhood with its new site plan design due to the conscious decision of Altındağ Municipality, different than the old original one and somehow confusing in terms of traditional architecture. Before the rehabilitation project, the functions of the buildings were mostly the same with the original and Hamamönü used to be a residential area mainly. However, the functions proposed and brought by the Project were different than the original.

Figure 3.36: Before and after comparison of the urban fabric at Hamamönü. (left) Urban fabric of Hamamönü at 1939 (right) Urban fabric of Hamamönü present

The southern part of Tanış Street (on the opposite side of Culture Street) was redesigned within the context of the Hamamönü Rehabilitation Project. Sarıkadı Mosque, as a registered building in Hamamönü area, was restored and the small campus area nearby the mosque that was designed as a new project. The construction year of Sarıkadı Mosque is known as around 1730 Sarıkadı Mosque's imaret is mentioned during the interviews of the municipal officials but there is no definite record about the plans. During the rehabilitation period, it is seen that Hacettepe University Main Campus area did not change and stayed in its former state. The Campus has a critical impact on the Hamamönü area, and it occupied the region gradually since its' appearance at the core of Hacettepe.

Hacettepe park, popular with its spectacular fountain pool for the citizens, was the first step of invasion in the historic urban fabric of Hamamönü. These occupied areas have been transformed according to the needs of the University, such as the parking lot, dormitory area and several educational/medical buildings. Moreover, the ownership of an important part of Hamamönü belongs to Hacettepe University. (Figure, 3,35.)During the rehabilitation project, several more buildings have been expropriated, in case the multiple ownership situations would affect the process negatively by slowing down the construction period. As a result, the dominant

power of the Hacettepe University over the area (Figure 3.37) has been expanded unprecedentedly (Yabacı, 2012: 48-50).

Since the 1940's, the occupation area of Hacettepe Campus got constantly enlarged. Hacettepe, as one of the most popular medical complexes of Ankara and Turkey, where pioneering work in the field of medicine, health and education is carried out, bringing people here from all around the world. The more increasing number of patients, students and staff at Hacettepe Campus, the more area has been required. These requirements satisfied by the executives of Hacettepe University clearly poses a great threat to the sustainability of cultural heritage at Hamamönü.

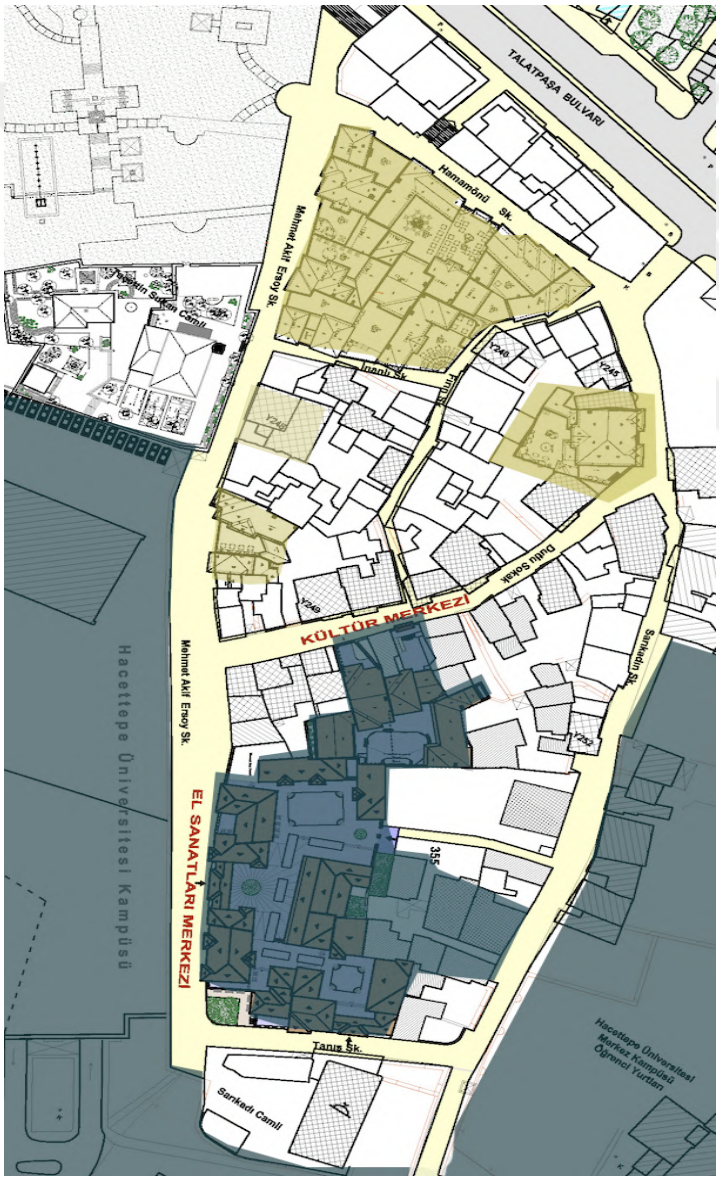

Figure 3.37: Ownership status of the Hamamönü Çakıroğlu: 2021) The darkgreen shows the ownership of Hacettepe and Yellow parts belongs to Altındağ Municipality

From the examination of the maps dated 1939 several streets were re named or occupied by the campus site.Kütükçüoğlu Street, Küçükkapı Street, and Benlioğlu Street are vanished, and replaced by the parking lot of Hacettepe Campus and hospital buildings. Taceddin Street, today named as Mehmet Akif Ersoy Street, that is one of the main circulation arteries of Hamamönü area, became a dead-end street. The change of circulation pattern not only affected the connectivity and the character of the streets, but also had great impacts on the dwellers' lives socially. As a long-term project, the Hamamönü Rehabilitation Project was a significant opportunity to take precautions and correct several mistakes.

The measures to be taken during the expropriation could have been at the forefront of these. Steps to preserve the street morphology and restitute the lost or faded physical qualities could have been made. But instead, Altındağ Municipality had decided to 'reconstruct' only the imaret of Sarıkadı Mosque according to vague information and left the rest ownership of the area to Hacettepe University.

In the archives dated 1780, there is information that a madrasa was planned to be built with a classroom with ten cells, other than the mosque. In 1839 dated the old Ankara plan, the complex was marked as a religious settlement (Duygun, 2016: 79). However, there is not enough reliable source and evidence for an imaret built as it was planned. Despite the doubts about the madrasah and the imaret, Altındağ Municipality started a reconstruction project. Figure 3.39 and 3.40 shows the todays conditions of İmaret buildings. Sarıkadı Mosque is a modest, small, two-storey high building with a hipped roof with a cemetery and lodging, unlike larger and widespread domed mosques (Duygun et al., 2016: 80).

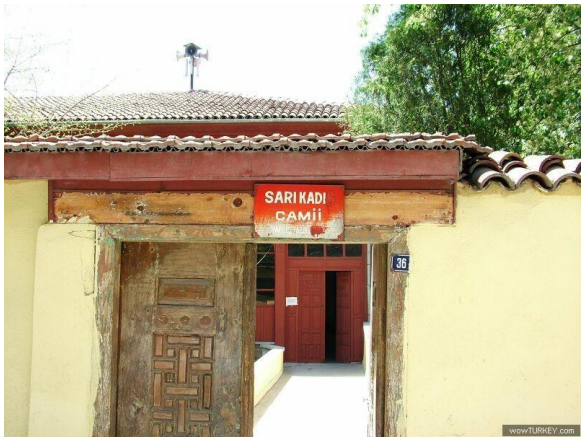

Figure 3.38: Sarıkadı Mosque before the rehabilitation (wowturkey.com archives, access time: 2021)

Figure 3.39: Sarıkadı Mosque before the rehabilitation (wowturkey.com archives, access time: 2021)

During the implementation of the Project, the lodging and the surrounding walls were demolished, and an imaret/madrasah complex was allegedly rebuilt fully. The comparison between old and the current status can be seen in Figures below 3.40, Figure 3.41 and 3.42.

Figure 3.40: Sarıkadı Mosque after the rehabilitation (Çakıroğlu, 2021)

Due to the site analyses of the study area realized in 2021, the surrounding stone walls were replaced with metal fences, new entrances were opened and the fountain was

built nearby the mosque. The interior of the mosque was renewed as well. At the backside of Sarıkadı Mosque, it is possible to see the Hacettepe buildings, in between the mosque and the imaret.. Even though the mosque is always open to the rest of the imaret, it was closed to public and locked on most of the days.

A traditional imaret/madrasah is to serve anyone in need, especially in the neighborhood. In the complex, there should be a cookhouse (known as aşhane) , Turkish bath, and also it is necessary to carry out regular educational activities in the madrasah. (Url-10)**.** However, the whole complex is given to use of Ankara Center for Thought and Research (Ankara Düşünce ve Araştırma Merkezi, abbreviated as ADAM) foundation.

This foundation is a research/training organization serving mostly undergraduate and postgraduate students. This is a complex where regular courses are offered on different subjects, but attract only a specific/limited group of people and not the whole or most of the public (Url-9).

Figure 3.41: View from the main imaret building (Çakıroğlu, 2021)

The imaret/madrasah combination building has a U-shaped plan with a small courtyard and with the program of a cultural center.

Figure 3.42: View from the imaret buildings (Çakıroğlu, 2021)

Sarıkadı Mosque is not the only religious building in the area, there are more significant mosques like Karacabey Mosque. In that sense, the much older and more important mosque in the region could have been used as a complex instead.

The area of Sarıkadı Mosque and the imaret is also studied to be a buffer zone between Hamamönü area and Hacettepe University Campus, Mehmet Akif Ersoy Street, the main artery in Hamamönü, became a dead-end street after connecting with Sarıkadı Steet via Tanış Street, and Adam Foundation became the endpoint for the street. Mehmet Akif Ersoy Street, previously called Taceddin Street, has the highest user density. Mehmet Akif Ersoy Street Rehabilitation Project is rather complicated compared to other streets in the area, there are several reasons behind this.

The residential buildings in the Hamamönü area have been vacant due to being unused. The Project did not only include Mehmet Akif Ersoy Street buildings, but also Mehmet Akif Ersoy Park and the surrounding area of Taceddin Dergah, designed as a recreational area. Before the Project, this recreational area was used to be a residential area like the rest of the quarter according to the military maps dated the 1940s' On the other hand, there was a recreational area, located in the southern part of Hamamönü region, known as Hacettepe Park. The park and the fairy fountain used to have great importance in the collective memory of the citizens in the 1960s. In the Republican Period, when urbanization and urban culture were restructured, parks and open space designs evolved from traditional to modern, and new sculptures and pools as symbols

of modernity started to be seen in the cities of Turkey. In this context, Hacettepe Park has been one of the first of this approach and new period (Türkyılmaz, 2015: 107). Expropriation and loss of Hacettepe Park is one of the results emerging due to the expansionist policies of Hacettepe University Campus. Hacettepe parkı has been used as a recreational area until the end of the 1980s actively.

> During the site survey and oral interviews conducted within the scope of this study in 2021, the comments about Hacettepe Park are as follows; In the old times that I could remember, there was a pool which later was gone. Now I don't know if it is probably used as a parking lot, but back then when I was a kid, I remember a statue called 'water fairy statue'.(Figure 3.43) People were coming to see that statue and the park because back then, the pools of Ankara were famous which are not anymore... and, Hacettepe used to be a cemetery. This is the old version of Hacettepe which I remember from my childhood (The Anonymous Respondent During the site Analysis in 2021)
>
> "I remember there was that great statue at Kızılay, which was later moved to Hacettepe Park. I'm not sure about the name, but people used to call it the 'fairy pool', the rumor about the name was given by the late Char of Russia. Then, it turned out to be made in Europe and given as a gift, it was taken away by the Municipality later. I have heard that Gökçek put it into some storage, who knows, maybe melted away. Back then, people used to come to the park for a picnic, but now it is the backyard of Hacettepe" (by the anonymous respondent during the site analysis in 2021).

As it is possible to understand from these comments on Hacettepe Park, it was symbolizing the modern urban face of Ankara, frequently visited and enjoyed by the public.

Figure 3.43 The iconic fountain statue (Top)(Vekam Archives) Latest Known condition of the Fountain (Bottom) (Milliyet Archives)

The iconic statue of Hacettepe Park is no longer in use. The fountain statue is known for still being at the storage of Ankara Metropolitan Municipality (Dündar, 2008). However, the fate of this iconic fountain statue is clearly not deserved, especially as a part of collective memory and cultural heritage.

In this context, the area for Mehmet Akif Ersoy Park and Recreational Area was chosen as the area to the west of Mehmet Akif Ersoy Street, between Talatpaşa Boulevard and Taceddin Dervish Lodge in Hamamönü. There is Hacı Musa Mosque, a registered religious building, is located in the middle of Mehmet Akif Ersoy Park. - Mehmet Akif Ersoy Park was planned (Figure 3.44) and constructed by Altındağ Municipality and was opened in 2009 (Arslan, 2012: 136). In the preliminary plan of the M.A.E. Recreational Area, there was a parking lot, but it was canceled .

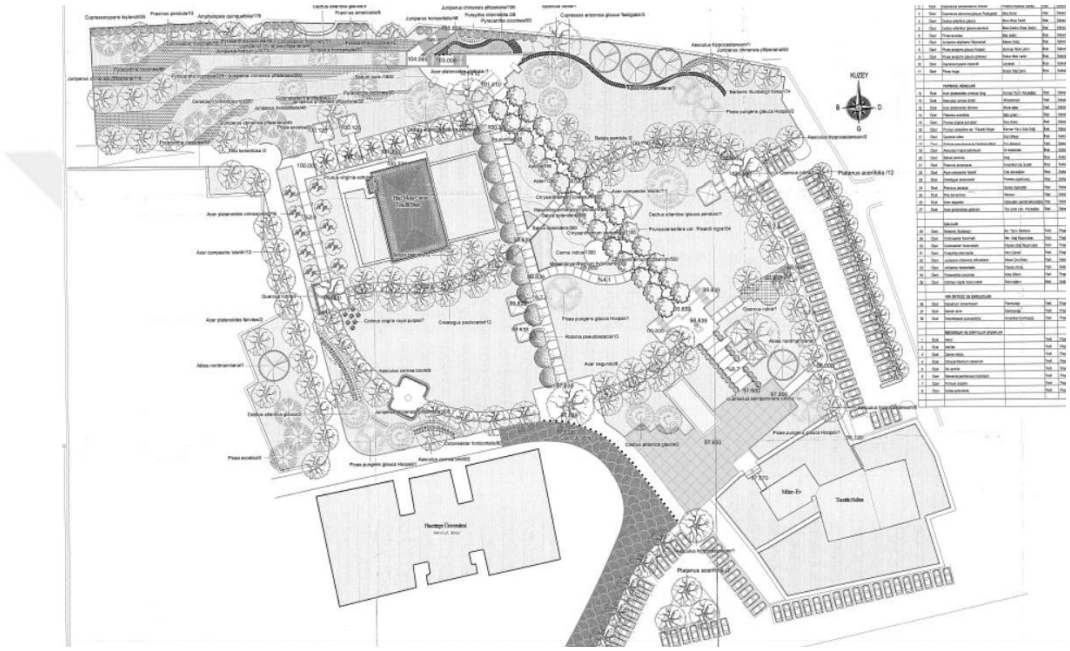

Figure 3.44:Site Plan of M.A.E Recreational Area (Altındağ Municipality archives, access time: 2020)

The second phase of the rehabilitation process for Mehmet Akif Ersoy Street is the reconstruction phase of the physical environment. In the Project, the backbone was Mehmet Akif Ersoy Street, but the overall reconstruction process covered three additional streets; Hamamönü Street, Fırın Street, and İnanlı Street, which directly connected with Mehmet Akif Ersoy Street. Reconstructed building lots by Mehmet Akif Ersoy Street contained 17 buildings of which three of them are registered within the Ankara Renewal Area Cultural and Natural Heritage Conservation Zone. Reconstruction plans have been approved with decision no.31, dated 14.06.2007. The Project included site analysis and restoration projects that are prepared on scales 1/100, 1/50, 1/20, and 1/10 scales (Arslan, 2012: 115).

Mehmet Akif Ersoy Street's condition before the rehabilitation was not different from the rest of Hamamönü area in general. Some of the residential buildings were demolished and others needed heavy repair.

Many old buildings expropriated (Figure 3.45 and Figure 3.46) by the Municipality were rebuilt within the scope of the project. Some of these are still used by the Municipality, and some of them are rented and used by businesses and different organizations. However, after the rehabilitation, many problems occurred, according to the users. Within the scope of the project, it was aimed to improve the infrastructure, not only for the buildings but also for the environment. On the other hand, when the cost of the project was considered for 2007 conditions, it was quite costly. Only one million TL, out of the total cost of 2,366.493 TL was received from the Ankara Governorship, and the remaining part was paid by the budget of Altındağ Municipality (Arslan, 2012: 116).

Within the scope of street rehabilitation works, the technical infrastructure of Mehmet Akif Ersoy Street was renewed, mainly electric and telephone cables were taken underground to provide a cleaner view of the streets (Tiryaki, 2014: 66).

For example, during the demolition and reconstruction of the historic Beynamlızade Mansion, there are controversial changes and inappropriate additions, harming its originality (Tiryaki, 2014: 119).

Figure 3.45: Reconstructions of Beynamlızade Mansion buildings in the study area (KM Architecture , access time: 2020)

Figure 3.46: Reconstructions of buildings in the study area (KM Architecture Office, access time: 2020)

Depending on the site analyses realized in 2021, functional changes are observed along with the additions that do not exist in the traditional buildings. The historic mansion located at Mehmet Akif Ersoy Street, which is currently used as the private office of the former mayor, is not open to public use.

Within the context of Mehmet Akif Ersoy Street rehabilitation, urban lighting works were carried out in the streets and street furniture was added. In addition, landscaping works has been done as well. In addition, the multi-storey buildings connecting Mehmet Akif Ersoy Street to Talatpaşa Boulevard, and the upper floors of the buildings were demolished in terms of integrity and to prevent visual pollution (Yabacı, 2012: 84-86). For the multi-storey buildings, not only the number of floors of the buildings, but also their street facades were changed to ensure visual integrity. However, no internal changes were made at these buildings, but left to the building owners (Arslan, 2012: 114). Long construction period caused a decrease in the number of dwellers in the area.

Moreover, similar to the southern part of Hamamönü that is also reconstructed, the street pattern and the land use are different from the situation seen in the cadastral map of 1931. The interventions not in line, but against the original traditional qualities, caused critical changes in the character of Hamamönü. ‘Reconstructed’ and

‘improved’ buildings according to Mehmet Akif Ersoy Street Project's scope is used for various purposes today. These are cafes, gift shops, restaurants, training/educational centers , pharmacies, and NGO buildings. Repair applications and changes observed in historically protected focal points such as Hamamönü also significantly affect the project's sustainability.Traditional construction techniques were imitated during Hamamönü rehabilitation works. However, application mistakes are observed in several places on different scales. These traditional techniques were ignored Figure 3.47 and Figure 3.48) during the maintenance and repair activities observed in the post-process and performed by the users, as they do not require both economics and mastery.

Figure 3.47:An example to the use of incompatible materials for the repair of old buildings at Hamamönü (Çakıroğlu, 2021)

Similar material losses have been observed Figure 3.49) during maintenance and repair works at various scales. In the same way, there are additions and material deteriorations followed at the interiors. During the Hamamönü Rehabilitation Project’s period of 10 years, different approaches were adopted by the owners.

Figure 3.48: Building annexes, incompatible with the traditional characteristics (Çakıroğlu, 2021)

Figure 3.49: Deformation of the interior spaces of old residential buildings after the rehabilitation (Çakıroğlu,2021)

Made by the users to create more spaces, mezzanines, overhangs, covering the distance between buildings disrupt both the layout of the buildings and the perception of the space.

The electrical systems, including lighting fixtures and air-conditioning units (Figure 3.50) are incompatible with the historic buildings, observed as applied in the reconstructed building. Although the new kitchens and toilets, as well as the new air-conditioning and electrical systems, aimed to increase the comfort conditions. Even though it may seem to be beneficial in terms of the comfort conditions of the buildings, those applications have no benefit in conservation practices.

Another point to discuss of Hamamönü project, is protection of the original texture and characteristics of the traditional Turkish architecture. The buildings that are additionally constructed to the site, have no characteristic, They don't reflect any characteristic of the historic housing style , and the applications like contemporary toilets, kitchens, cooling systems and spatial arrangements (Figure 3.50), ruins the perception of historic houses.

Figure 3.50: New interventions to the historic buildings (Çakıroğlu, 2021)

Industrial-type air conditioners, toilets renewed with current materials and accessories, unsuitable electrical installations in the rooms disturbing the authenticity of traditional Turkish houses.

After the rehabilitation of Mehmet Akif Ersoy Street reused only with cultural and commercial functions, Hamamönü has become a more attractive place for the tourists. Due to this, this affected the number of daytime populations, that is visiting and working people on the street. On Mehmet Akif Ersoy Street, four buildings are not in use, and one building lot is empty due to demolition. Today, in the case of Mehmet Akif Ersoy Street, it would be proper to analyze it with respect to Hamamönü Street, as the project included both streets, having similarities.

Hamamönü Street takes its name from the district itself, located in front of the historic Karacabey Bath and passes through the northern part of Hamamönü area parallel to Talatpaşa Boulevard.

Before the rehabilitation project Hamamönü Street hosted buildings from two different periods and typologies for a long time. During the rehabilitation project, according to the municipal records the existing structural condition of the traditional buildings was not suitable for rehabilitation, they were decided to be rebuilt. Multi-storey buildings located on the northern periphery of Hamamönü Street were subjected to change to - integrate with Hamamönü. In this context, the number of floors in these buildings was decreased and facade improvements were made with fake windows and doors (Yabacı, 2012: 123).

As with Mehmet Akif Ersoy Street, the buildings of the projects of Hamamönü Street have differences from the traditional Turkish architecture. The facilities were re-designed according to different purposes, including commercial and public use.

Figure 3.51: Southern Elevation of Hamamönü Street (Altındağ Municipality archives, access time: 2020)

The southern side of Hamamönü Street is a new construction zone. From the street elevation in (Figure 3.51), it is possible to see the later shop window openings on the ground floors. In some examples, non-authentic courtyard walls were rebuilt with bricks, and wooden eaves were added to some buildings.

Kabakçı Mansion, as one of the most important examples of traditional mansion architecture in Ankara, was reconstructed externally and internally based on the detailed measured drawings and the photos of the old original building).

Figure 3.52: Current Use of Kabakçı Mansion (Altındağ Municipality archives, access time: 2020) (Left) External view of the building (Right) Internal view of the building

Kabakçı Mansion (Figure 3.52) redesigned and constructed, was started to be reused as a multi-purpose building for various social activities under the management of the Altındağ Municipality (Tiryaki, 2014: 144).

The buildings along Hamamönü Street are in two groups.The buildings on the south

side of the street were reconstructed, no longer being used for residential purposes and transformed into commercial functions like book store, tea house, restaurants, and cafes. The buildings on the north side of the street are originally reinforced concrete multi-storey apartment buildings constructed after the 1970s, but their floors have been reduced six or seven, to three to four floors which caused the loss of an important ratio of the residents and new traditional residential facades have been applied/cladded, at the same time converting them from residential use to different commercial functions The Clock Tower Square, another phase of the Hamamönü Rehabilitation Project, has become one of the landmarks in the area following the rehabilitation. The square of the Clock Tower located at the beginning of Hamamönü Street was expanded with the demolition of some buildings in the area and is used as a public space today (Yabacı, 2012: 66).

The street, running from the Clock Tower Square to Dutlu Street is called Fırın Street (Figure 3.53, Figure 3.54 and Figure 3.55). The significance of Fırın Street is its current use as residential mostly. After the rehabilitation, Fırın Street remained as a residential area without any other functions. On this street, 4 out of 16 existing buildings have been newly constructed. Other buildings are examples of traditional residential architecture. The newly constructed buildings are either used by NGOs, or for commercial purposes. With the constructional problems observed during the rehabilitation of the buildings, the rate of the preserved original traditional buildings are relatively higher. than the reconstructed ones.

Figure 3.53: (Left) Southern part of Fırın Street view at 1999 (Tunçer, 2002:201) (Right) Southern part of Fırın Street view at 2020 (Çakıroğlu)

Figure 3.54: (Left) Northern view of Fırın Street at 1999 (Tunçer, 2002:201) (Right) Northern view part of Fırın Street view at 2020 (Çakıroğlu)

Figure 3.55: (Left) Northern view of İnanlı Street at 2006 (Altındağ Municipality Archives, 2021) (Right) Northern view part of İnanlı Street view at 2020 (Çakıroğlu, 2021)

İnanlı Street is located parallel to Hamamönü Street, connecting Mehmet Akif Ersoy Street and Fırın Street. The number of the buildings that are located on İnanlı Street is 7and 4 of them used for commercial functions. One of these commercial functions is a henna house (‘kına evi’ in Turkish) which is a small wedding space. Other ones served as coffee shops. The number of the reconstructed buildings was 4 and one of them is one of the imitative buildings that has the same appearance with traditional

Turkish architecture on the façade , but the plans and space arrangements are different.

With the rehabilitation works, some new elements added at İnanlı Street are the prefabricated buildings, the shop canopies and their walls. These additions caused changes at the general layout of the street, changing the original solid-void relations, reducing the original street width by filling the areas in-between buildings with these changes due to personal economic concerns. Within the larger content of Hamamönü Rehabilitation Project, this thesis study includes Hamamönü Street, Mehmet Akif Ersoy Street, Dutlu Street, Tanış Street, İnanlı Street, and Fırın Street. A comparative analysis of the study area with before and after data is studied physically and socially. However, the street rehabilitation works have been handled structurally, and infrastructurally with various applications. Within the infrastructural context, the phone, television, and electrical lines were taken underground. Secondly, public spaces including the squares and parks were rearranged, expanding the inclusiveness of the project. Then, urban furniture, street pavements, and urban lighting fixtures were done within the complementary aesthetic interventions.

Primarily Altındağ Municipality, secondly Ankara Metropolitan Municipality, then Ministry of Culture were the contractors implementing the project. Ankara Governorship and Altındağ Municipality were the main legal entities in terms of financial support.Hassa Architecture, Önen Architecture, UTTA Construction, Cihan Architecture, Akyol Architecture were the private companies that worked at the rehabilitation project phase, and KM Architecture, Mimor Architecture, and Municipality worked in the implementation phase.

The changes observed during and after the rehabilitation works in the area are not limited to the physical ones only. With the effect of advertising activities for the region by the local government increased the recognition and awareness for the area. As a result, the number of users in the area increased significantly. A serious decrease is seen in the number of owners and the spectrum of trade, with shifting from housing to trade and to the service sector. However, economic development accelerated the transformation process.

The primary aim was defined as to improve the financial welfare level of the region when improving the current situation (Personal interview with municipality officials, Anonymous, 2021), there occurred irreversible damages within the context of the project implementations, realized by the relevant institutions and organizations. The

traditional buildings in the area designed originally for residential purposes are changed to various commercial and cultural uses spatially, to house more people, causing irreversible alterations. In the long term, various interventions using mostly cheap and unsuitable materials due to economic concerns, and spatial changes ruining the original characteristics are observed. Similar losses are seen not only in the practices of the owners/users, but also in the works of the hired contractors.

Besides, it was aimed to improve the social context in the area with a cultural center and a park in the area. During the process (Figure 3.56), delays and disruptions were experienced, both due to ownership status and the hierarchy of the site management. However, the rehabilitation and restoration works in the Hamamönü area were completed and opened to use in 2010.

In over a decade since the completion of Hamamönü Rehabilitation Project, the area became one of the most popular touristic places in Ankara. As expected, it has become a multi-functional area hosting a variety of activities. Within the scope of this study, the multi-layered parameters of the Project implemented for the protection and development of this conservation site are examined. Positive and negative changes of the Project are aimed to be put forward, and the current situation of the area is examined after more than a decade since the completion of the Project (Figure 3.57).

Figure 3.56: Top view of Hamamönü in 2007(Google Earth, access date: 05.07.2020)

Figure 3.57: Top view of Hamamönü in 2020(Google Earth, access date: 05.07.2020)

4. EVALUATION OF THE EFFECTS OF REHABILITATION PROJECT IN TERMS OF RESILIENCE

Within the content of this thesis study, it is aimed to put forward and evaluate the rehabilitation studies carried out for Hamamönü with a particular emphasis on resilience. However, the resilience studies in our country can be said to be at the starting point of the initial phase. With this aim, the studies conducted around the world at different scales are examined. Depending on the outcomes of the literature survey, the most recent and comprehensive studies are taken as the basis of the analysis and the evaluation phase. It is especially aimed to investigate the resilience of the rehabilitation studies at conservation sites, which is a critical issue in Turkey with many cases in progress or already completed.

Hamamönü is a very convenient example to analyze and understand the resilience of the rehabilitation studies at the conservation sites. Remarkable data is available showing the situation before the Hamamönü Rehabilitation Project, but also going back to the earlier phases of this area in Ankara.

For the analysis and evaluation of resilience of the rehabilitation studies, the criteria is adapted according to the notable international studies of CRI and RELi, as mentioned before. In this context, qualitative and quantitative analysis methods are used. In this context, eight titles are derived from both CRI and RELi aiming to determine the resilience level after the rehabilitation studies at conservation sites through the case of Hamamönü.

Through the literature review, it was aimed to understand how the Hamamönü Rehabilitation Project changed the area physically and socially over a decade. Then, through the fieldwork, it is aimed to understand the current physical and social characteristics of the study area. Finally, through a comparative analysis, it is aimed to identify the changes physically at architectural and environmental scales and socially with the intended transformation from residential to trade, evaluating the rehabilitation process, data is gathered to compare the qualities in the study area defined at Hamamönü at ‘pre-project’, ‘during the project’, and ‘post-project’ phases. Measuring the resilience level is thought to be an example to understand the scope of the project, the urgent and long-term decision for future similar projects.

During the field study, related data were collected in various categories to understand the area's current situation. These will be explored in detail in the following sections.

Another phase of this study is the GIS analysis. The GIS (Geographic Information System) is a system that allows users to create and analyze all kinds of data on a map system. GIS creates a connection to understand data throughout the locational base on the mapping system. It also provides users with an analysis of all kinds of available data, making it useful for almost all kinds of fields. It enables the researcher to understand all kinds of relations, including patterns and networks within the context of location (Dursun, 2007: 5-7). In addition, Space Syntax has been chosen as a system to understand and analyze the context of Hamamönü through the study area.The outcome of Space Syntax is Depth map X, which is intended to be used in this field, uses various measurements such as connectivity and integration. This system makes it possible to observe the changes in physical structures and areas by measuring the base map, which must be prepared from various CAD programs. It is aimed to study the connectivity and integration of open spaces by preparing AutoCAD maps for the before and after situations of the area. It is to provide an informative resource on changing this unique street texture (Dursun, 2007: 7-9).With the questionnaires applied at the study area, it is aimed to define the user profile in the area, finding out the demographic distribution, education levels of the users and the duration of living or working in the area, and the ownership pattern, as well as how the residents of region were affected by the Rehabilitation Project during the implementation and by changing property prices after the project. It is aimed to find out the ownership status of the tradesmen in the area. Determining the changing demographic profile of the area gives information about the new users. In addition to this, it is aimed to understand the social, demographic, and educational changes that occurred in the area in the past 12 years. With the applied questionnaires, it is targeted to get the opinions of the users in the area about the effects of the Hamamönü Rehabilitation Project physically (architecturally and environmentally) and socially, briefly stating their ideas about the current situation. Besides, it aims to determine the citizens' participation status in the rehabilitation and improvement activities.

By combining the results of these three different types of analyses, evaluations in the context of resilience will be discussed in detail in the following section.

At this point, it must be noted that the recent Covid 19 global pandemic crisis has affected social, economic, and daily life worldwide on unprecedented scales. In this study conducted in the context of resilience, it is inevitable to discuss the short-term effects of the pandemic that occurred in the process. It is also important to show how prepared we are against future threats, as a parameter of resilience studies. However, it would be beneficial to evaluate Hamamönü as a system to understand the resilience issues in conservation sites that will be useful for similar other cases.

4.1 Hamamönü As System

In the 21st century, cities have begun to be considered as systems (Bai, et all, 2016:70) Even though the Hamamönü region is a small area at urban scale, its internal and external dynamics are large enough to consider as a small urban system (Figure4.1) . Likewise, the economic, social and intuitional layers of the system Hamamönü has its own dynamics that work together as an open system.

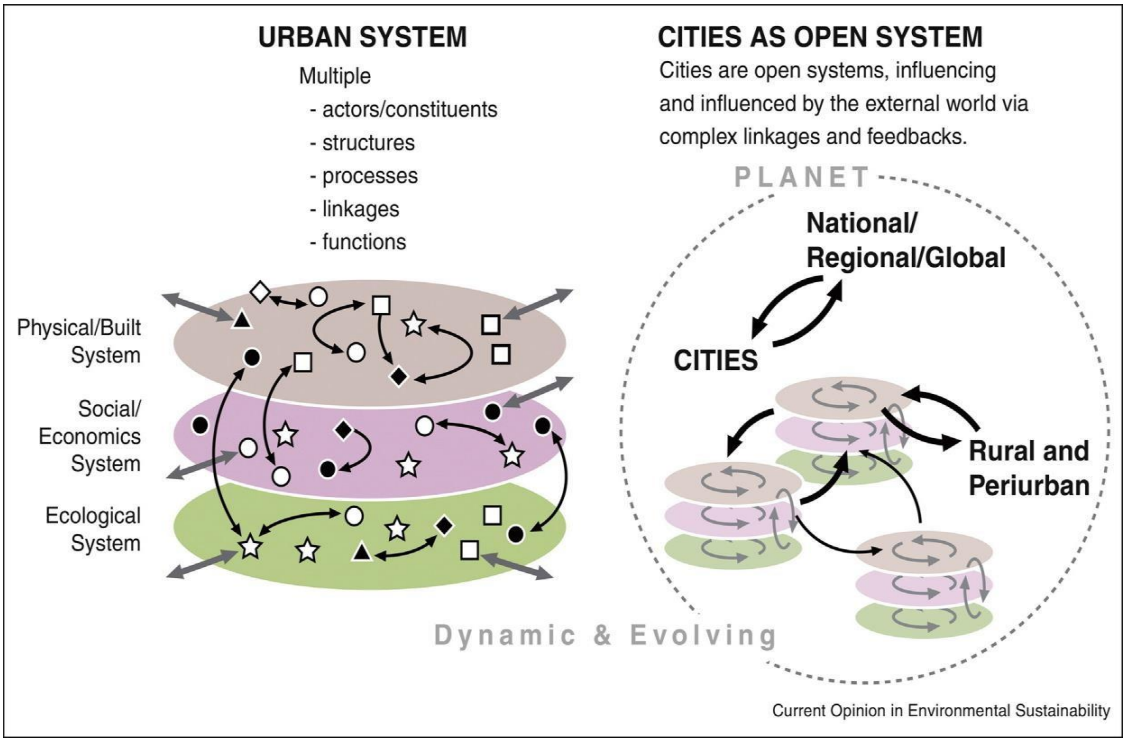

Figure 4.1: Scheme of Urban System and its' layers, (Bai. t all. 2016:71)

Case of Hamamönü, as being a sub-system of Ankara, the system layers of Hamamönü should be analyzed according to the transformation context of Ankara. Not only the development plans of Ankara but also the Hamamönü Rehabilitation Project has changed those urban layers at an unexpected rate. The Hamamönü Rehabilitation Project has changed more than the physical context of the system element of Hamamönü which transformed the actors and functions and the borders of the system as well.

As an urban system the Hamamönü region was working as a residential neighborhood where traditional Turkish architecture formed the physical environment and people from lower-income groups resided. The local economy was based on several small businesses such as markets, pharmacies, bookshops and the neighborhood was used by the same people for a very long time (between15 and 25 years).

After the rehabilitation project, the economy, the society, and the physical environment of Hamamönü changed. Today, as being an urban system, the borders of Hamamönü became more defined. For the physical space, Talatpaşa Boulevard on the northern side, cuts its relation from the Hamamarkası Region which used to be connected beforehand. On the southern border of the study area, the main street of Hamamönü became a dead-end street because of the Sarıkadı Mosque and the imaret building. On the western side, the dormitory buildings and the main campus of Hacettepe University define the edges of the Hamamönü system. Finally, the parking lot area and hospital complex creates the eastern border.

In terms of social life, Hamamönü was a residential area that required a certain level of privacy. After 2006 the increased attention of visitors changed the social life of Hamamönü in several ways.

Moreover, open spaces and increasing the amount of public space have effects on the efficient operation of Hamamönü. Other than the physical changes in the region, the project brought economic changes. It is of great concern for the system's sustainability in developing the economic and social structure (McGrath-Lei, 2021: 605).

It is indisputable that the change of capacity within the system layers affects the general balance of the system. It is obvious that each system layer and its capacity changed in Hamamönü which becomes an important topic in the evaluation of restoring this balance, especially in Hamamönü, in the context of Resilience. This

changes the relationship of Hamamönü as a subsystem among the other subsystems and in Ankara at urban scale. Hamamönü is a system that develops and transforms within the scope and context of the transformation and rehabilitation works. It is important in many aspects that this system is resilient in preserving and maintaining its values in the context of culture and economics.

It is inevitable that the layers of the system will diversify and the actors will diversify, and that it will also affect the relationship between the existing layers and the actors in the following processes (McGrath- Lei, 2021: 604-607).

4.1 Resilience Integrations for Hamamönü

In the 20th century, disasters and human activities are uncertain and unpredictable, which may be considered as an urban threat in terms of urban life (Riberio&Gonçalves, 2019: 1). Therefore it is necessary to respond to them all as quickly as possible to prevent constant damage. Promoting urban resilience provides a quick response mechanism against associated dangers. With this, the urban mechanism and related systems require a holistic approach for resilience integration. Since resilience is a comprehensive and current issue, it has been discussed at different scales in different fields. In this context, it would be beneficial to examine the studies conducted to integrate resilience into an existing mechanism of Hamamönü.
The urban resilience literature (Figure 4.2) expanded unprecedentedly in the last decade in both fields of academic and policy statements (Riberio, & Gonçalves,2019: 1). Therefore, the general framework of urban resilience can be built upon the most holistic research and statements. Urban resilience research is widespread, thus, there are several similar definitions of urban resilience. Although the concept of resilience is not entirely clear and objective when considering different urban contexts. (Pendall, Foster, & Cowell, 2010: 71-84).

To clarify the framework of urban resilience according to context, it is necessary to understand the basic dimensions of the process. When the most general studies on resilience are examined at the academic and practical scale, the definitions encountered can be studied according to five dimensions: physical, natural, economic, institutional, social (Ostadtaghizadeh et al. 2015).

The physical definition of resilience addresses the structural and mostly infrastructural environment that assesses sustainability, durability, and efficiency. Natural resilience examines the existing environmental and ecological status. Economic resilience is the assessment of the development of the economy in terms of cumulative perspective. The institutional resilience examines the governance and policy making states. Finally social resilience includes community life in general (Riberio & Gonçalves, 2019: 5).

Scientific Area(s)	Definitions of urban resilience	Author(s)
Agricultural and biological sciences;	Resilience is the degree to which cities tolerate the change before reorganizing around a new set of structures and processes and depends on the ability of cities to maintain their eco-systemic and human functions simultaneously.	Alberti et al. (2003)
Engineering;	A resilient city is a sustainable network of physical systems and human communities.	Godschalk (2003)
Agricultural and biological sciences;	It is recommended that resilience only be used in a restricted sense to describe specific system attributes relating to: (i) the amount of disturbances a system can absorb and remain within the same state or domain of attraction and (ii) that the system is able to self-organize.	Klein et al. (2003)
Environmental science; social sciences;	Resilience is the ability of a system to adjust to changing conditions.	Pickett et al. (2004)
Social sciences;	Urban resilience is the ability of a city to recover from destruction.	Campanella (2006)
Business management and accounting; psychology;	Urban resilience refers both to design changes (structural, architectural, spatial planning) and to management and governance measures that aim to prevent or mitigate the physical and social vulnerability of urban areas, to protect life, property and the economic activity of the city.	Coaffee and O'Hare (2008)
Environmental science;	Resilience is the ability of a socio-ecological system to sustain a given set of ecosystem services in the face of uncertainty and change for a community.	Ernstson (2008b)
Environmental science; social sciences;	Urban resilience means extending the concept of resilience from technical systems to social systems, particularly to cities, and their ability to recover and continue to provide their main functions of life, commerce, industry, government, and social gathering in the face of calamities and other hazards.	Hamilton (2009)
Environmental science; social sciences;	From a resilient perspective, governance can be thought as a propositional collective action to sustain and improve a regime, or to trigger a transition from the system to a preferable regime.	Ernstson et al. (2010)
Environmental science;	A resilient system is a system that can tolerate disturbances by means of characteristics or measures that limit its impacts, reducing or neutralizing damages and disturbances, and allowing the system to respond, recover and adapt quickly to such disturbances.	Wardekker et al. (2010)
Environmental science; social sciences;	Resilience is the ability of systems to organize and recover from changes and disruptions without change to other states-that is, systems that are "safe to fail."	Ahern (2011)
Business management and accounting; energy; engineering; social science;	Urban resilience usually refers to the ability of a city or urban system to resist a wide range of shocks and tensions.	Leichenko (2011)
Earth and planetary sciences; social sciences;	In the case of urban adaptation to climate, a resilience-based approach encourages practitioners to consider innovation and change to help recover from tensions and shocks that may or may not be predictable.	Tyler and Moench (2012)
Engineering; social sciences;	Urban resilience to flooding is a city's ability to tolerate flooding and reorganize if physical damage and socio-economic disturbances occur to prevent death and injury and maintain current socio-economic identity.	Liao (2012)
Environmental science; social sciences;	Although urban resilience usually refers only to the ability to maintain functions and structures, it must be framed in the visions of resilience (system persistence), transition (incremental system change), and transformation (system reconfiguration).	Chelleri (2012)
Social sciences;	Resilience is the ability of an urban asset, location and / or system to provide predictable performance.	Brugmann (2012)
Business management and accounting; social sciences;	A climate-resilient city is one that can resist climate stress, respond effectively to climate-related risks, and quickly recover from residual negative impacts.	Henstra (2012)
Business management and accounting; social sciences;	Resilience is the ability of an individual, community, or institution to respond dynamically and effectively to changing climatic conditions, continuing to function at an acceptable level.	Brown et al. (2012)
Environmental science; social sciences	A city resilient to disasters can be understood as a city that can successfully support measures to strengthen individuals, communities and institutions to: (a) reduce or avoid and future risks; (b) reduce current and future susceptibility to resist risks; (c) establish mechanisms and functional structures for disaster response; and (d) establish functional mechanisms and structures for disaster recovery.	Wamsler, Brink, and Rivera (2013)
Social sciences;	Resilience is the ability to resist and recover from disruptive challenges.	Coaffee (2013)
Energy; engineering; social sciences;	Resilience in cities usually refers to the ability to absorb, adapt, and respond to changes in an urban system.	Desouza and Flanery (2013)
Agricultural and biological sciences;	Resilience is the ability of a city to absorb disturbances while maintaining its functions and structures.	Lu and Stead (2013)
Business management and accounting; social sciences;	Resilience is the ability of populations and urban systems to resist a wide range of hazards and stresses.	Romero-Lankao and Gnatz (2013)
Agricultural and biological sciences; environmental science; social sciences;	Urban resilience is the ability of a city to persist without qualitative changes in its structure and function, despite the disturbances.	Wu and Wu (2013)
Engineering; social sciences;	A more comprehensive definition of a resilient city emphasizes a community's overall ability and ability to withstand stress, survive, adapt and recover from a crisis or disaster, and move forward quickly.	Wagner and Breil (2013)
Environmental science;	Resilience refers to a set of urban ecosystems that provide benefits to livelihoods and urban well-being.	McPhearson et al. (2015)
Social sciences;	Urban resilience refers to the ability of an urban system and all its socio-ecological and sociotechnical networks to maintain or rapidly return to the desired functions in the face of a disturbance and adapt to change, and to rapidly transform systems that limit capacity adaptive current or future.	Meerow, Newell, and Stults (2016)
Agricultural and biological sciences;	Urban resilience can be defined in evolutionary terms as a proactive vision for planning, policy formulation, and strategic direction in which communities play a vital role in resilient place modelling through their active learning ability, robustness, capacity for innovation and adaptability.	Mehmood (2016)
Engineering;	Resilience is the ability of individuals, communities, institutions, companies, and systems in a city to survive, adapt, and grow regardless of the type of chronic stress and acute shocks to which they are subject.	Spaans and Waterhout (2017)

Figure 4.2: Definitions of Resilience (Riberio,p., Gonçalves, L.,2019:5)

Considering the studies carried out, this is the general framework constructed to define resilience. Likewise, when evaluated in context, resilience was addressed in different scales from global to regional, urban to the community, and facilities scale (Zhang&Li, 2018: 143). That creates a linkage between the needs and necessities to different layers of urban life scales.

After examining both concepts and the definitions in general, it is necessary to understand the characteristic of resilience to understand the way of evaluating the urban systems (Figure 4.3). Complex and holistic perspectives in the components of resilience support the continuity of a system in balance.

By analyzing the research conducted from different fields, the most relevant characteristic of the urban resilience that provides the urban system a more balanced environment, that are; robustness, connectivity, adaptation, existing resources, independence, integration, innovations, inclusion (Riberio&Gonçalves, 2019: 8).

In the light of these studies, after the examination and in-depth analysis of the concept of resilience, studies show us the framework of resilience. Its characteristic is drawn in general terms, that it is a more case-based and flexible, comprehensive approach to understand risk and threats to enhance resilience level and to adopt and to develop.

> Adopting strategies to return urban resilience will allow us to develop useful and more robust approaches for cities to cope with and adapt to various types of disturbances, such as disruptions/blockages to the movement of populations (Riberio&Gonçalves, 2019: 6).

Within the scope of this thesis, the resilience strategies chosen to enhance resilience level are implemented from studies carried out on a global scale. And because, as mentioned previously, the resilience is a more flexible and case-based study to evaluate that the evaluation criteria are derived according to the status of Hamamönü. Adopting and developing strategies provides a more problem-oriented approach to understanding the existing level of resilience in the context of the urban system

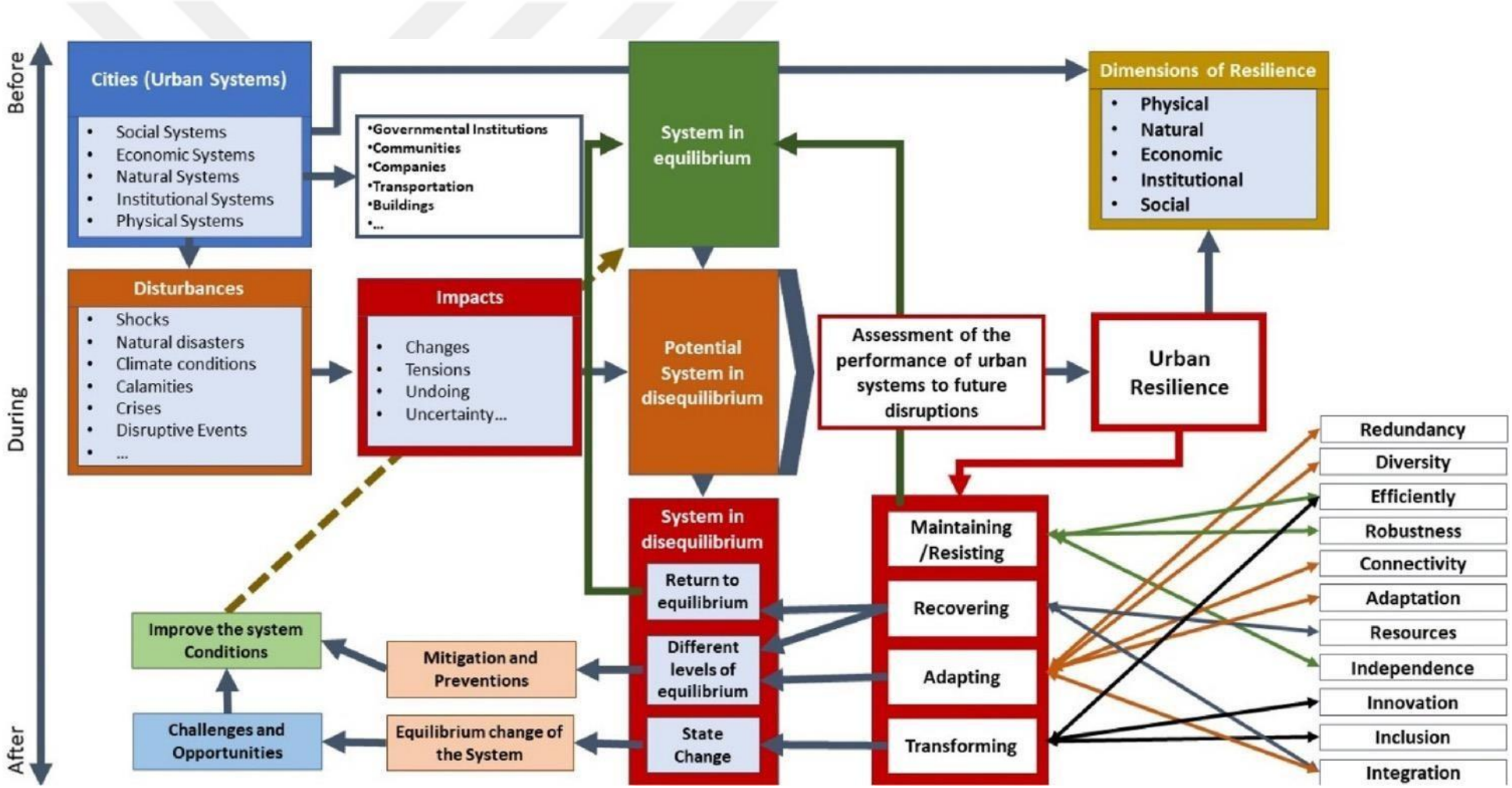

Figure 4.3: Resilience Scheme (Riberio, & Gonçalves, L.,2019:8)

Approaches that are envisaged to be used to understand the system for measuring the resilience of Hamamönü rehabilitation and improvement studies are mainly based on RELi and CRI studies. The study is bipedal because one of these resilience approaches is more conceptually focused, and the other is more application oriented. Hamamönü requires that both be addressed jointly, as a pioneer of the implementation project.
In terms of the more application-oriented CRI strategies, they have been chosen to understand the resilience level of Hamamönü that are leadership and strategies, economy and society, infrastructure and environment, health and well- being.
The first strategy for the CRI is resilient leadership and strategies that require effective leadership and management and with empowered stakeholders and integrated development planning. Having strong management provides benefits in every sense in long-term studies. For example, it is vital to find appropriate solutions to the problems that may be encountered, provide site management, contribute directly to the region's physical and economic development, and ensure correct progress. In addition, ensuring the sustainability of projects with the right strategies is one of the most critical determinants for the survival of subsystems in developing and transforming city systems (McGrath-Lei, 2021: 605).
To understand the resilience level of the leadership and strategies, it aims to understand the level of effective management, integrated planning approaches, and the status of stakeholders. Furthermore, determine the participatory area management, future development plan initiatives, and finally, the current status of the user- administrator relations.
The second strategy for the CRI is the economy and society, which requires a sustainable economy, comprehensive security and the rule of law, and collective identity and community support (CRI Research Report 6, 2016: 66).
In this context, to understand the resilience of the economic transformation that took place in the Hamamönü example, it is necessary to understand not only the financial parameters but also the social parameters. The validity of the principle of public order and equality that ensures social resilience is one of the fundamentals of its social sustainability (CRI Research Report 6, 2016: 82). The creation and development of community awareness also depend on the reliability of these practices.

This shows us again the importance of management and society relations.

(CRI Research Report 6,2016: 66).

The third resilience principle that is integrated from the CRI is infrastructure and environment. Beyond the physical environment, in terms of resilience, infrastructure and environment are generally related to mobility and connectivity of the area. Therefore, ensuring the area's flow, especially highlighting the cultural spaces and evaluating the area in the context of experiencing the area, bring the predictive features of resilience to the fore (CRI Research Report 6, 2016:166).

The final principle for the CRI implementation in terms of resilience is health and well-being directly related to diverse livelihood and employment. In terms of Hamamönü, it is crucial to understand how land use changed. As mentioned before, the area evolved from residential to trade, the level of economic development and how strong it is one of the key points to measure the level of sustainability. (CRI Research Report 6, 2016: 25)

Moreover, understanding the rate of trade and production is one of the most critical indicators of total economic development. Because during the crisis, especially the case of the Covid-19 pandemic, the durability of the service industries and related employment levels and long-term efficiencies almost collapsed. In this context, their adequacy in ensuring sustainability for a long-term economic development project through only a single or relatively small range of sectors is not sustainable.

It is aimed to carry out resilience studies by studying these four CRI implementations in Hamamönü specific. Moreover, as Hamamönü is a relatively wider area to understand in terms of resilience. Hence, the second base that will be used to obtain more accurate outcomes is the RELi guideline. The number of the RELi implementation for Hamamönü is four, similar to the CRI implementation. Moreover, the RELi implementations become complementary to the CRI, which are materials and artifacts, panoramic approach, community cohesion, social-economic vitality, mitigation- adaptation, and hazard preparedness.The first implemented strategy for the RELi strategies is materials + artifacts, which is strongly related to the built environment and durability (RELi 2.0., 2020: 84-85) It aims to examine the built environment and all the elements that constitute this environment in the physical, social and cultural context and determine the level of resilience. Additionally, because the cultural background of the physical environment

is inseparable from the physical environment, it is important to understand the relationship of coexistence among them. The Hamamönü case, the improvement project in terms of cultural environment, is considered as important as the physical environment because it creates a touristic urban node. To ensure that these parameters are maintained, implementation projects need to cover the physical and the non- physical environment. For this purpose, observing the project's design stages and understanding its inclusiveness in the long term is important in terms of resilience studies.
The second implementation strategy for RELi is a panoramic approach. The panoramic approach, an upper-scale observation, is an inclusive way of handling that is specifically addressed to the project that is also intended to be long-dated (RELi 2.0., 2020: 5-7). Because long-term observations and data collection enable us to prepare for the problems encountered later (Fastiggi et al., 2020: 1279). Because resilience is a relatively new concept for the case of Ankara that will provide data for future projects, resilience studies in terms of urban conservation processes, and other fields, the importance of big data cannot be ignored. The third RELi implementation is community cohesion and social +economic vitality, which are strongly related to walkability, public transit, and non-motorized transit facilities. Moreover, because it has a strong relation with improving the dwellers' quality of life, affordable and proper housing and efficient community space are other related sub-headings to determine the resilient level of the Hamamönü region in terms of RELi implementations. The main intention is to design a process that sustains local characteristics of both community and the environment without any negative impact and long-term effect (RELi 2.0., 2020: 57). For the final implementation for the RELi hazard preparedness, short-term hazard preparedness, mitigation + adaptation, that it would be proper the note the resilience strategies in terms of hazard preparedness and adaption, studied against sudden shocks or emergencies on upper scale threats like climate change, destructive physical events such as wildfires, storms, mass migrations, and wars (RELi 2.0., 2020: 21-23). In this study of theses, another crisis that emerged in 2019 and affected the whole world is the Covis-19 pandemic which can be considered as an acute shock, which will be evaluated.

Before going through the evaluation criteria it is important to underline that the resilience studies are strongly related to context. Even though the level of resilience is a framework to both evaluate and assess the institutional, social, economic, infrastructural, and other levels of the city, each city and urban environment has thier parameters to evaluate as well.

As an icon to consider, the CRI and RELi are both developed in the USA. The urban context of USA cities is considerably different from Turkey. The economic conditions and institutional and even structural conditions are remarkably different. Especially in the case of laws and legislation and the status of the built environment is more developed than the conditions of Turkey.

But the CRI implementation is developed with the participation of over 100 different cities over 4 continent

Africa, Europe, the U.S., and Asia were the areas that were mainly focused on. Each study's city had its context but it is also inevitable to have common contents.

Considering the breadth of the study, the frequency of statistical occurrence of these common contexts increases. This shows us that cities can basically share common problems and develop common solutions to these problems.

As a matter of fact, these studies are of foreign origin does not mean that the problems and solutions emerging in today's urbanism are alienated. Considering the analysis and evaluation processes carried out throughout the study, it was observed that the problems observed locally were common and especially similarities with the studies conducted within the scope of CRI.

It is possible to develop conservation principles in international standards, especially since the neglect, destruction and loss of physical environment faced by historical areas are closely related to the wear of physical structures.

In short, when Turkey is evaluated in the context of Ankara and Hamamönü, it can be considered that the evaluation of conservation practices through the frameworks that have emerged as a result of international studies, is positive in terms of resilience studies.and in terms of future studies, since increasing local examples will develop common context denominators, it will be possible to make more precise predictions and develop solutions.

4.2.1. Resilience status of Hamamönü in terms of leadership and strategies

Hamamönü and surrounding area that is in the Altındağ district have been used for housing purposes under the management of the Altındağ Municipality. For the case of Hamamönü, it is crucial to understand that the planning and development that is the key and the starting point of the projects for all fields, the planning, and the other strategies, and the role of administration will be the first phase for evaluating resilience level of Hamamönü.

According to CRI indicators to measure leadership status and strategies in terms of resilience need to ask certain questions;

To what extent do we have an appropriate government and decision-making process?

To what extent do we have effective coordination among the governmental bodies?

To what extent do we have a proper monitoring mechanism?

To what extent do we have a participatory environment?

To what extent do we have enough sources to sustain management?

To what extent can we protect our system against stresses? (Url-11)

These are the important traces for searching urban resilience in terms of CRI indicators. Moreover, urban regeneration and renovation projects are multidisciplinary studies, including policy-making and planning, for each element of urban layers from the transportation, housing and economy, tourism and community, development and sustainability, and industry (Leary & McCarthy, 2013:6).

The impact of management approaches is indisputable. From the evaluation of the previous worldwide projects, the answers to the questions given above are based on six courses that are 1) Legislation 2) Budget 3) Planning 4) Application 5) Observation, and finally 6) Update These six layers should be evaluated as a circle rather than a linear application, and the feedback mechanism should also be considered. For instance, after the observation process, the planning and application approaches may have changed accordingly. Because the budget affects the application, the layers should be considered accordingly.

The first layer is the legislation and the laws in terms of conservation and rehabilitation applications for Hamamönü. The Ministry of Culture and Tourism is the main stakeholder in terms of controlling legislation and law. And the law numbered 2863 'Law on the Protection of culture and Nature Assets dated in June 1987, and law numbered 5336' Protection and Conservation of the Battered Historical and Cultural Immovable Assets by Renewing' are the main bases for the studies of preservation and rehabilitation projects in Turkey.

For the case of Hamamönü, the preservation, and rehabilitation studies were carried out by the ministry and local government. As previously mentioned, the Ulus region is the old city of Ankara, the preservation and rehabilitation studies carried out with the contribution of central and local government, several institutions and NGOs. The winning project in the competition held in 1986 within the scope of the preparation and implementation of the conservation renewal plan is the Ulus Historical City Center Conservation - Improvement Development Plan *(Ulus Tarihi Kent Merkezi Koruma-Islah İmar Planı)* of Raci Bademli (Tunçer, 2013: 13).

Within the conservation studies, there are also two more different conservation plans studied that are "Castle and Its Surroundings Plan" and "Ankara Central Old City Texture Planning, Rehabilitation, and Protection Project" (Tunçer, 2013:12).

After the competition, delays and canceling were observed in the implementation of this plan for various reasons. In 2004, after the local government election, there were several revisions made on urban planning practices(Tunçer, 2013:11). After the change of local government, new governance started to work on a completely different project named Ankara Historical City Center Renovation 1/5000 Scale Conservation Master Zoning Plan and 1/1000 Scale Conservation Implementation Plans, and previous plans were canceled without any explanation. The plans were prepared by the Metropolitan Municipality of Ankara and approved by the Culture and Natural Heritage Conservation Regional Directorate with decision number 25 in May 2007.

Individuals and various organizations have filed an action for annulment against this new project, which is planned to be implemented.

Ankara Historical City Center Renovation, which includes and its surroundings 1/5000 Scale Conservation Master Zoning Plan and 1/1000 Scale Conservation Implementation Plans and Suspension and cancellation of the attached Plan Notes has been decided by the Ankara 10th Administrative Court in 2008. Reasons for the announced decision are listed as follows:

1. According to the law numbered 5336, the areas requiring renovation have to be detected by the Council Of Minister, not The Metropolitan Municipality.
2. According to law 2863, it is restricted to cancel an urban plan without a judicial decision, not with the city council's decision.
3. According to law 2863, it is restricted to cancel a plan without preparing a new plan or a revised plan with a judicial decision which does not exist.
4. For a region to be declared a renewal area, that region must be declared a protected area with the council of the minister, not the city council.

As a result of the court decision in 2008, the Ankara Historical City Center Renovation, which includes and its surroundings 1/5000 Scale Conservation Master Zoning Plan and 1/1000 Scale that covers the Hamamönü area was canceled (Tunçer, 2013:10-15). Between the preparation process and the cancellation (2004-2008) for the case of Hamamönü, mainly the analysis and field studies were carried out.

After the cancellation, the Hamamönü region was declared as a transition period zone According to law numbered 2863. Besides, the project was carried out according to Ankara Cultural and Natural Heritage Preservation Regional Board decision number 263 in 2008, Transition Period Protection Conditions and Usage Conditions described by the law numbered 2863 (pp.13-15).

Transition Period Protection Conditions, the main stakeholders become Altındağ Municipality because Transition Period Protection Condition requirements are to prepare survey research for a restitution-restoration-reconstruction project that should also be prepared under the local governance.

After this, the project should be submitted to Conservation Regional Board for approval. Then, the following process includes supervision, implementation, and control mechanisms, is further carried out by the local governments as well.

At this point, one of the most critical points to be considered and evaluated in the context of resilience, the Hamamönü Rehabilitation Project, is part of the upper scale projects at first which is Ulus Historical City Center Conservation - Improvement Development Plan. Even though the plan was approved in 1986, the application process was insufficient to protect the historical sites of Ankara, including Hamamönü and surrounding region. Therefore it is possible to search for new conservation actions only within legal limits and regulations. Studies carried out independently of all legal regulations will inevitably be inconclusive and a waste of time. It is a well-known fact how vital time management is to prevent the urban fabric loss in urban preservation projects. Following the terms of use of the transition period, a new conservation plan should be prepared within two years (this period may be expanded to three years if necessary). The transition period applications stated that there should be protection plans prepared within 2 years, it has been more than 10 years but still, any plans were prepared.

The laws and legislations define the legal process in terms of preservation and protection studies of cultural heritage in Turkey because the administration and the bureaucracy stand against the legal process, which causes economic loss and leeway. Another stage for the conservation and preservation processes is to provide the financial source. In the current system in Turkey, the financing of protection is provided from the share allocated from the central government's general budget. Especially, the Ministry of Culture and Tourism fund is an essential contribution for the property owners who do not have the necessary financial resources to repair the buildings they own (Tiryaki,2014:43). In the case of Hamamönü, considering the general economic level of the dwellers, it is inevitable that the government will load the economic context.

The general budget for the preservation and rehabilitation studies is provided by the TOKİ (Corporate housing authority). The 10% of the property taxes is also directed to the local authorities to contribute to the Protection of Immovable Cultural Heritage fund. The fund of TOKİ is available to implement selected projects for the protection of cultural heritage on personal applications.

The number of applications for preservation studies on an individual scale has increased significantly within the last decade. The budget of the corporate housing

administration became insufficient. At the beginning of 2005, almost all applications from all around Turkey were accepted and supported, but the number of the supported projects increased, but the money given to private persons has decreased in the recent years. The financial source for the Hamamönü Project is mainly provided by the Altındağ Municipality and the fund of contribution to the Protection of Immovable Cultural Heritage. In addition, the budget of the Altındağ Municipality was used for the expropriation and the fund for rehabilitation purposes.

The central budget for the Hamamönü Rehabilitation Project was provided by the main stakeholders, considering the economic level of the dwellers or the owners which was a fair approach. Moreover, to compensate for the Municipality's expenses, the municipality administration sold or rented the newly constructed buildings after the process.

The existing sources provide the income and expenditure level for the process, but no specific project-based financial model exists.

The third layer of study is planning which includes preparation, data/information collection, importance/status assessment, and responses/suggestions. The preparation process for the Hamamönü studies was carried out between 2000-2007. Because of the cancellation of the Ulus development plan on the upper scale, the application phase was postponed. During this period, because the legal procedure is carried out, it is forbidden to start or to maintain an application, the planning level is lengthened. In this process, due diligence studies were carried out at various scales in the field. The ownership status of the buildings was determined. The current status of use of the buildings was also determined. Further, the deficiencies in infrastructure and municipal services were also identified.

The project's planning phase to identify physical context was carried out by both Altındağ Municipality and the private companies. Nevertheless, the local participation level in the planning process remained low.

There are several reasons why the local participation level was insufficient. One of them is the insufficient communication channels for the dwellers and the landowner. For instance, the education level of the Hamamönü region is lower compared to other parts of Ankara. And the fact that the project promotion activities were not at the level of the participants caused the lack of efficient communication channels with the people of the region.

The local tradesmen also mention it because the main reason behind the Hamamönü process is creating a new image of the neighborhood and providing economic income sources by attracting the attention of investors. For this reason, it was given priority to the views for evaluating opinions of external investors rather than the existing ones (:105).

In line with the studies, consultancy services were obtained from different sources, and on-site situation determinations were made. However, it is not possible to say that the studies generally follow a participatory policy based on local people's collection of suggestions, etc.

The application phase of the Hamamönü Rehabilitation Project started in 2008 and was completed in 2010. The reason behind why the application process was completed in only two years is that the Altındağ Municipality had already completed the equipment and preparations and expropriation works at the planning stage.

The application phase of Hamamönü was mainly based on the street rehabilitation, façade improvement, and reconstruction processes. The rapid completion of the implementation studies at different scales based on neighborhoods and the administration covering the economic burden is among the positive aspects of the process, considering the dwellers continued to live in the construction zone.

But the main criticism against the application phase is not following proper conservation approaches. In terms of conservation studies Hamamönü is to create an attraction point for the visitors and become a landmark for Ankara. On the contrary, the ones that need to be protected are not preserved, but rather artificial scenes were created by imitating the existing original texture.

Another of the essential problems that emerged during the implementation and continued afterward is that the property owners demand prices. In the process, the increase demanded by the property owners from the tenants, especially in the buildings used as sub-residential trade, caused the low-income residents to leave the area (Arslan, 2009:143)

Existing businesses in the region, which cannot compete with the budget capacity of the municipality's investors, have mainly been closed due to rent increases. Therefore, the physical transformations experienced during the project and the applications are not by the original composition. However, it is beneficial to underline shortly here that these transformations that have emerged in practice have been from housing to commerce. This is one of the most significant reasons for the

loss of the traditional housing-based neighborhood texture of Hamamönü.

In terms of observation methods, in 2005, with the revision of the law numbered 2863, the conservation implementation and inspection offices (KUDEB) were established. With this new approach to conservation supervision practices, a KUDEB office was established within the Ankara Metropolitan Municipality in 2007. During this process, the Altındağ Municipality applied to establish a KUDEB within its organization; this application was rejected. The external supervision for the conservation practices should provide more objective approaches, but in the case of Altındağ Municipality, being supervised by the Metropolitan Municipality caused bureaucratic problems. (An anonymous person, official statement of Altındağ Municipality architect) For instance, making direct contact with the project contractor causes problems. Because according to law numbered 2863, transition period applications are carried out by the Altındağ Municipality, and the private contractors were liable to the KUDEB offices. But the Altındağ Municipality is liable to the KUDEB offices working in Metropolitan municipalities. In this context, it is impossible to expect efficient outcomes in an environment of various bureaucratic confusion in terms of supervision and observation.As stated before, the resilience strategies of leadership and strategies compose various elements that are working together. And the last layer that is going to be examined is the update mechanism. After the rehabilitation process in Hamamönü is completed in 2010, the Altındağ Municipality expanded its project border to Hamamarkası (northern part of the Talatpaşa Boulevard) region. Therefore, the significance of the following part of the project is the updated version of the Hamamönü Rehabilitation Project in terms of preserving the original texture.Before the Talatpaşa boulevard was constructed, the Hamamönü region was directly connected to the Hamamarkası region (from the map dated 1939). And they both were used for residential purposes. However, with the construction of the Talatpaşa Boulevard, the neighborhood split as an Hamamarkası (Sakarya neighborhood) and Hamamönü (Hacettepe neighborhood). And these two neighborhoods have undergone similar transformations both culturally, sociologically, and structurally.Hamamarkası region is a larger scale area compared to Hamamönü, in terms of population and acreage. And these are the two main reasons why the Hamamarkası rehabilitation project was completed afterward even though they started simultaneously. During this process, academics carried out

studies about the Hamamönü, and local governments reported the fundamental problems caused by the rehabilitation project. For instance, even the City planners who work for Altındağ Municipality studied the Hamamönü Rehabilitation Project within the scope of thesis study in the field of city and regional planning. Accumulation of datas' and the result of significant criticisms, as Hamamönü was a prestigious project for the local government, the following phases of the rehabilitation works continued without major refunctionalizing. For instance, changes in the trade of the Hamamarkası region (trade transformation into service industry), according to the opinions of local people, are ten times lesser than the Hamamönü region (Tiryaki, 2014:165). Similarly, the main criticism about the lack of up-to-date information about the period that occurs is one of the major complaints (almost 37%) of the Hamamönü Rehabilitation Project. But for the Hamamarkası region, no such criticism has been received (Tiryaki, 2014:170). The quality of rehabilitation studies, solution-oriented approaches to the problems encountered during and after the process are significant. However, it should be noted that these solution-oriented approaches should also be applied in areas where the application has been completed, and solutions should be developed for related problems. For instance, before the rehabilitation studies, the wide range of commercial sectors of the Hamamönü region transformed into the service sector, and today, it keeps changing in the same direction (café, restaurant, etc.) (Field study, 2021). On the other hand, Covid 19 pandemic, the service industry almost collapsed due to curfew and shutdown, and the financial result of these will be discussed in the following sections.The resilience level of Hamamönü in terms of leadership and strategies is evaluated under CRI indicators. By answering several questions, it is impossible to consider it as resilient. For the case of Hamamönü, it can said that;

- Appropriate government and decision-making process does not exist
- Effective coordination among the governmental bodies does not exist
- A proper monitoring mechanism does not exist
- A participatory environment does not exist
- Sufficient source management does not exist
- No protection mechanism against stresses

The resilience status for the law and legislation is not accomplished. To explain, on the upper scale for the Ulus Historical City Center Conservation - Improvement

Development Plan was developed according to laws numbered 5336 and 2863. The laws and legislations clarify the status and regulations. Even for the immediate cancellation of the plans (which is an acute shock in terms of project development and application). Moreover, for the other case, laws, and legislation clarify the status of stakeholders to ensure the project's sustainability. For instance, the local municipality is responsible for the application process, the metropolitan municipality is responsible. for controlling the applications, and for the larger scale, the ministry of culture is responsible for providing the maximum budget and approving conservation plans. Thus, all stakeholders are responsible mutually, which assures in terms of the reliability of the process. Therefore, under these laws and regulations, the resilience level of developing strategies is reasonably practicable. But it is not possible to argue for the resilience level of leadership.

As previously stated, the authorization overruns or lack of contact between the stakeholders creates gaps within the process. In some cases, these gaps are so big that they even cause the cancellation of the current plans. Consequently, participatory area management provides both security and reliability for the stakeholders and society from the resilience perspective. The laws and legislation also ensure the resilience level of the creating budget. For example, the determined amount of the housing taxes is reserved for conservation practices. Moreover, it is an ongoing process to refill the budget.

And for the case of Hamamönü, considering the economic level for both householders and dwellers, it can be considered one of the most effective ways to solve the problem. The primary deficiency of budget management is not to create a post-project budget. Instead, it ıs vital to create a resource for post-project investments, and resources are always needed for unforeseen events and problems. Although the Municipality covers the essential maintenance and repair services of the neighborhood, there is no budget for continuing the applied rehabilitation work. Therefore, at this stage, it is not possible to mention durability and sustainability at any level of the economic management of the current project administration.When evaluating the resilience level of the planning process, the data collected about the current situation of the neighborhood from multiple sources provides reliability.

Besides, legal proceedings have been done in the planning period, preventing any suspension from the application process.The level of the planning phase of the Hamamönü Rehabilitation Project is not inclusive as it should be, because the Hamamönü vision of the Altındağ Municipality is beyond the existing reality of the Hamamönü situation. Therefore, the planning activities inevitably carried out over the foreseen situations instead of the current situation will collapse with the first shock encountered.

Yabacı stated that 'it has been thought that because of not being based on a conservation plan corresponding to the region that Hamamönü situated in, these are not determined, which are not based on a vision, whose contributions to the surrounding and to the city are not introduced.' (2012:107).
Even though the application process of Hamamönü is relatively short, which is important in terms of being lived neighborhood, the application does not seem possible to mention its sustainability and efficiency in handling the problems that arise during and after the implementation phase, as previously explained detailly.
Observation level of the conservative studies, in generally Turkey, especially urban site area, with the law numbered 2863, with the revision at 2005, forming the KUDEB office is a major step for supervision and inspection.
Though the laws and legislation provided a reliable path and shared responsibilities between stakeholders, the bureaucratic conflicts preceded the process. Finally, for the case of Hamamönü, the update mechanism is not applied to the post-project process. The absence of any approach or projecting process regarding the post-implementation is not a suitable form of management regarding resilience.
To sum up, the resilience level of Hamamönü in terms of effective leadership and strategies is crucial to developing an inclusive program. Although there are limits set by law, practitioners must act within these limits to increase resilience levels. The economic resources should be reorganized concerning further situations. From the first stage, planning should be developed with a flexible and participatory approach.

4.2.2 Resilience status of Hamamönü in terms of well-being

Conservation studies carried out on the urban site sections are complex and multidimensional studies. Among these dimensions, the sustainability of the economy is one of the most complex ones. To be able to understand the economic dimension of Hamamönü, it has been examined in accordance with CRI implementations. To be able to understand resilience level of Hamamönü in terms of resilience, we need to understand and analyze certain questions which are:

To what extent can we provide diversity in terms of business sectors?

To what extent can we provide business continuity?

To what extent can we provide business development?

To what extent can we provide employment diversity to disadvantaged groups?

Within this section it will be evaluated the resilience level of well-being by trying to find answers. As it is previously mentioned, the economic level of residents of Hamamönü was relatively low compared to the other sites of Ankara in the 2000s. Moreover, the lack of repair and maintenance works by both dwellers and households caused the demolition of the physical space.

The considered solution to these problems is to create the tourism zone of Hamamönü and achieve that a new attraction point has been created by re-creating urban nostalgia as a neo - Ottoman vision (Onur, 2018: 160).

With the advertisement activities promoted by the Altındağ Municipality, the Hamamönü neighborhood has become an urban place where tourists show great interest, especially during Ramadan. As a result of the tourism activities, the demand for the service sector increased in the region. Right after 2010, the service sector dominated the economic activities of rehabilitated streets: cafes, restaurants, and patisseries. the number of commercial enterprises increased, but a transformation of the sectors into a single field increases the vulnerability of the income sources. The Covid pandemic provided a remarkable example to understand why single commerce types make the economy unstable.

Within the scope of this study, survey research and field trips were conducted. During this survey study, certain questions have been asked to the business owners to analyze

the economic level of Hamamönü. Furthermore, it has been analyzed that the transformation of the service sector from past to present by comparing data collected in the past.

Before the Hamamönü Rehabilitation Project, the number of commercial businesses was 38 (Kurtar-Somuncu, 2013:45); after the rehabilitation project in 2012, the number of commercial businesses became 70. Thus, today's condition is that the Hamamönü region has 78 commercial businesses, 39 cafés and restaurants, 14 gift shops,4 of their bookstores, and art studios. The rest are pharmacies, clothes shops, and teahouses. It can be considered that the attraction of the investors is gained, but the increasing transformation to a single sector will have adverse outcomes.

With the opening of new restaurants and cafés, the fundamental needs of the tourists are generally met. And because the new sector becomes profitable, the existing commerce or businesses transformed accordingly. Butchers, internet cafes, tanneries, etc., and shops that existed before the study disappeared.

The results of studies in the field carried out in different periods enable researchers for long-term observations. During the first three-years period of time, the result of the survey studies dated 2011; the new environment created by the arrangements made in the area and those adversely affected by the regulations (40%). The major complaint of these negative situations, residential areas are transformed (66.7%). The secondary is the loss of relatives (neighbors, co-workers, etc.) due to increased rent (55,6%). Furthermore, people finally stated that a negative outcome is an increase in the number of foreigners in the neighborhood (44,4%) (Kurtar-Somuncu, 2013: 45).

As a positive impact, the income level of the business owner increased (55,2%), the general environment and the surrounding became attractive not only for the local people but also from all over Turkey. The business workers' satisfaction level is around (60%), which is the majority.

A positive aspect to mention is providing employment opportunities for women, as mentioned earlier. Before the rehabilitation applications, the education and employment level among women of the Hamamönü region was relatively low by comparison. In today's conditions where education and working opportunities progress in parallel, providing working opportunities, especially for women, selling handcrafted materials at established handicraft bazaars, etc., is a crucial task to achieve. Another example is the Enderum book-café, which was established by three women and is one

of the most famous cafés in Hamamönü. Homemade foods were served, and the calm environment made the café attractive. According to the owner of Enderun Café's statement, the Municipality prioritized businesses established by women in licensing and lease agreements.

Additionally, to understand the current economic conditions and perception against the rehabilitation applications, several questions were asked to the participants. Firstly, it has been asked to people as "Do you have a workplace/shop or any business in the Hamamönü area and the 30,2% percent answered positively(Table 4.1).

Following question was asked to determine the time period that they established

Table 4.1:Business owner's Working period in Hamamönü (Çakıroğlu, 2021)

Working period in Hamamönü (Business owners)	**Distribution**
1-5 years	35.2%
6-10 years	21.1%
11-15 years	20.8 %
16-20 years	8.3%
More than 21 years	14,6%

As it is possible to understand from the collected data, the majority of the businesses are established after the rehabilitation project. Analyzing the collected information, which presents consistency from 2011 to 2021, the functional transformation from residential to commerce in Hamamönü still continues(Table 4.2).

Table 4.2: Change of ownership status and change in the business sector shows the stability of the economy (Çakıroğlu, 2021)

Which statements would you agree with regarding your current job situation?	Agree	Don't agree	Not significantly
I changed my business sector.	**13,8%**	**25,2%**	**61%**
My business developed economically	**9,4%**	**24,5%**	**66,1%**
My rent has increased	**25,8%**	**15,1%**	**59,1%**
Customers' rate of satisfaction increased	**14,5%**	**11,3%**	**74,2%**
My workspace become well-known	**25,2%**	**7,5%**	**67,3%**
Customer diversity has increased	**49,7%**	**3,1%**	**47,2%**

This question received multiple answers.

Question crossing means matching the answers given to the sequential questions in survey studies. For example, in a 3-question survey, it is the distribution of correlation that emerges with the answers of a participant who answered x to the 1st question and y to the 2nd .

Not only the change of ownership but also the increased rent and expenditures also threatens economic sustainability. On the contrary, the rate of customer satisfaction and customer diversity shows the success of the businesses and advertisement campaigns in the economic level.

Among the people who had business/workplace/shop, %37,1 think that the rehabilitation studies directly affected their business. Only 4,4% claimed that the rehabilitation studies had a major adverse effect on their working environment. The rest of them stated that the positive and negative effects of rehabilitation studies are controversial, but they are mainly satisfied. The crossover answers are analyzed, and the people who changed the business sectors are mainly within 16-20 years. People who say their businesses are also developed between 16-20 and more than 21 years of period.

People complain that the rents are significantly increased in 1-5 years, more 11-15 years and then 21 years. The ones who say that the rents have not significantly changed mostly in the 6-11 years period. The change rate fluctuations are considered against economic sustainability. If the businesses started to spend their main expenditure on rent, the service quality will decrease which brings a decrease in customer rates and finally bankruptcy.

The customers' satisfaction rate, primarily people working at Hamamönü in between 1 and 10 years, answered as not significantly changed, which means there are no developments observed since 2012. The following statement is the same. For the last statement, customer diversity has increased positively is answered by the people working in the Hamamönü region between 10 and 21 years.

Business owners state that the transformation rate of the business is problematic. Similarly, the rent change in comparison to the past is still significant for the local business owners. It was considered as a positive aspect of having diversity beforehand. Customers from all around Turkey are also continuous.

Nevertheless, because of the inequality of opportunity between the business owners, increased competition, and increased expenses, the statement in terms of economic development stated under 10%, which is considerably low.

It cannot be said that there is a noticeable increase in the well-being levels of the existing businesses in the region.

The diversity level of businesses are narrowed, and one of the main reason behind it,

explained by one of the business owners in the area as follows:

Hamamönü became an attraction point for both different groups of Ankara at the beginning, to see newly rehabilitated streets. Even the people from high-income groups of Ankara come to experience the renewed urban texture. Nevertheless, the general service business was not well prepared to meet their needs in contrast to the environment. For example, the tourist searches for cuisine that coincides with the authenticity of the environment. But local businesses followed the general genre like burger and pizza that can be found in any other restaurant. And even today, it is almost impossible to find local cuisine in Hamamönü. Instead, almost all of them have the same menu consisting of waffles, burgers, and grilled chicken.

The resilience level of Hamamönü in terms of well being investigated in accordance to CRI implementation by answering the following questions;

To what extent can we provide diverse employment in terms of business sectors?

To what extent can we provide business continuity?

To what extent can we provide business development?

To what extent can we provide employment diversity to disadvantaged groups?

For the answer of the first question, the state of Hamamönü is almost alarming, the unprecedented business transformation only to the service sector makes economic resilience vulnerable. Uniformization brings the problem of rapid collapse, which means if there are major threats against the service sector (like the pandemic, which will be evaluated in the following section) the whole economy will collapse together. But the diversity in businesses can protect the economy against total collapse.

For the second statement, the continuity rate of the businesses is not stable since 2012. The data showed us the continuity level of the established businesses and only 22,9 % of them have existed for more than 15 years. For the third statement, business development is based on planning and long-term observation policies. As mentioned in the previous section there were no planning processes carried out for the afterward rehabilitation studies. And as a result of this, only 9,4% percent of the business owners can say that their businesses were developed.The resilience level of well-being in terms of the Hamamönü Rehabilitation Project is increased by expanding women's employment status.

Especially with the help of the Altındağ Municipality, which educates women in terms of traditional handcrafts, also provides them a safe and equal environment to women from the lower-income group, who cannot afford the shop rent in the region, can sell their products. Furthermore, giving priority to the women who want to run their own business provides loan support and rent payment support, which is a remarkable improvement to provide employment diversity in disadvantaged groups.

4.2.3 Resilience status of Hamamönü in terms of economy and society

The resilience status of the economy and society is related to the previous section, which is the well-being status covering the diversified livelihood and employment. For this section, the economy and the society of the Hamamönü region will be evaluated in terms of resilience rate. To be able to define economic and social resilience, there are a wide variety of methods available. However, within the scope of this study, the current issue, a Covid-19 pandemic that is a great shock worldwide, will be discussed.

The private sector has a complementary responsibility to develop business continuity plans to ensure that businesses can also function during, and recover from, emergencies. City government can contribute to the sustainability of private economic activities by empowering different sectors within the economy and strengthening trade relationships beyond the city (URL-11).

The statement of economic resilience emphasizes the stability against emergencies and the contribution of the stakeholders by providing diversity and production. For the resilience status of the economy and society the questions that should be investigated according to CRI;

To what extent are the local businesses interlinked to the city?

To what extent are the income sources protected against shocks and disasters?

To what extent the job security of employees was provided?

To what extent was the project stakeholder related to the community?

In 2019 , the global pandemic conditions provided an extraordinary environment to evaluate the resilience level of Hamamönü against shocks and disasters. Some of the problems encountered within the decade after the rehabilitation applications are rent

increase, some businesses leaving the region after increased rents, inequalities of opportunity between businesses caused by one-sided management, etc. (Onur,2018:151). These problems have been practically based on individuals or businesses or local governments. However, at the end of 2019, the Covid -19 pandemic, which occurred in China at first and spread worldwide, was one of the biggest shocks observed within the last century. The WHO (World Health Organization) declared health emergency conditions in public health; on January 30, right after within two months, the global pandemic was declared. (Balkhair,2020)

For the case of Turkey, March 11, 2020, is the date the first patient was detected, and the Ministry of Health declared that the Corona Virus is in Turkey. Continuation of the process, on March 15, 2020, all the facilities, including libraries governed by the Ministry of culture, were shut down; on March 16, 2020, schools, including universities, switched to distance education. March 17, 2020, the Ministry of Interior declared that all kinds of café, restaurants, teahouses and places that people could gather would be temporarily closed. (AA, access date: 09.11.2021). During the pandemic measurement of Turkey, until May 28, 2020, all types of cafés, restaurants and similar establishments remained closed. After that period, takeaway services were allowed. After the 3 of April for the people under 20 and above 65, curfews were declared. After the 10 th of April, a curfew was declared for all people with exceptions, only for weekends and National – Religious Holidays. Until August 2020, the restrictions continued with different scales. (AA, access date: 09.11.2021).

The state jobs serving the public continued alternately and schools including universities were still closed. And the services sector, including shopping malls, café, and restaurants, were not opened fully. Until June 1st, 2021, the conditions of café restaurants and similar businesses mainly stayed the same. However, after June 1st, 2021 under the gradual normalization conditions, the service sector was reopened with half capacity. After a month, on July 1st, 2021, pandemic regulation conditions were rearranged on behalf of the service sector. After 18 months, the regulations have affected many businesses directly related to the pandemic.

Among these businesses, café and restaurants, and other businesses at Hamamönü were/are also included. The restaurants were shut down, the gift shops and bookstores were also closed down. Hamamönü was almost completely empty. Under these circumstances, economic sources became almost at a standstill, and cultural activities

were canceled. In addition, the Pandemic conditions of Hamamönü faced an unprecedented crisis.

To understand how much the region's business owners are affected by the situation, the opinions of the participants were taken in the survey study (Table 4.3).

It has been asked to the participants of the survey;

Table 4.3: Effects Of Pandemic to Hamamönü (Çakıroğlu, 2021)

	Agreed	Don't agreed	Not significantly
Do you think that the pandemic process has negatively affected the social and economic life in Hamamönü?	71,1%	18,2%	10%

When it is observed from the frequency of answers, most of the people who either live or work in the Hamamönü region were negatively affected by the Covid 19 Pandemic.

Especially, when it is checked the cross answers the questions, the majority of the people who work in Hamamönü, 97% said the Pandemic harmed Hamamönü.

Most of the dwellers answered as not significant or disagreed with the same question. However, because the Pandemic provides them with more privacy, the comfort condition of their social life has increased.

It is also asked for the business owners to briefly describe the problems they encountered during the Pandemic and the related process. And the answers were as follows; -

- The closure policy made us financially stuck
- Capacity has been reduced by half

- The employee lost their jobs
- Sales had come to a standstill
- We had a massive amount of debt
- The job capacity diminished
- Awareness of tourists decreased
- Raw material costs become too high

These are the most common reasons that people are mentioning. As previously stated almost all 78 commercial establishments were closed during the restraints. Furthermore, the existing situation worsens because the linkage between Hamamönü and other regions is not provided in terms of trade.

After the cancellation of the Pandemic restriction, it has been observed that Hamamönü is recovering; people started to visit the site, café, and restaurants, and other establishments started to rerun their businesses. However, it is clearly stated that the recovery process will be challenging because of decreased capacity, increased costs, and over-indebtedness. As a result, plenty of commercial shops (13) and restaurants closed permanently or were handed over.

It cannot be considered a resilient system with two years of implementation and ten years of the development process to go into such an economic collapse in a short time, against the first shock.

It is noted that the people who work in the Hamamönü region mostly come from outside of the region or are part-time student workers. 70% of workers are part-time students working without any registration or insurance. The number of the workers varies from 2 to 17 (the lowest number and the highest number that are observed during the field trip at 17.10.2021) Moreover, because the estimated number of people who work at Hamamönü is significant, most of them work in the part-time to service sector at various levels such as waiter, dishwasher, etc. Even though the employment level of Hamamönü is significantly increased, compared to the previous, the current status of the employment level cannot be considered resilient. The main reason behind that is firstly not to have any insurance or rights for the workers and secondly to have such a narrow business field.

To evaluate resilience level by CRI implementations the answers to certain questions needed to be analyzed. Firstly the linkage between Hamamönü and Ankara in terms of the economy does not exist. The businesses of Hamamönü address mostly visitors or near the surroundings. This linkage can be developed by the production of goods or services, and by promoting sof production this link can be created. For example, there can be a model based on the potential of Hamamönü. It is known that the sof produced at homes, and the first floor of houses can be used as production ateliers. And it is also known that there are free courses to train women to sell their products. It is also potential to train those women to produce soft fabric. By promoting the quality of the sof product, this can create market all around the city and country. In the end, the functional transformation of the service sector will be blocked, new job opportunities based on production would be created and finally, the linkage between businesses will be created.

Secondly, the protection of the economy also provides our social security in terms of society and as it is understood from the covid pandemic, there is no security program or any planning work done against the shocks and stresses. It is necessary to develop at least 5 and 10 years future programs to provide sustainability. With the consultancy of the NGO or universities, there should be economic programs developed.

The long term employment rate should be increased, insurance should be provided. The employment status of people should be made attractive, by providing an enhanced working environment.

The relationship between project stakeholders and the local community should be expanded. The needs of the residents should be considered by the local government. During the crisis, governmental insurance or support policies should be implemented. For example, during the pandemic conditions, the local government which is Altındağ Municipality should support the local businesses economically, for example, the rent payments, bill payments can be suspended, and the insurance payments for the employees should be covered by the government. But to achieve all of this firstly there should be a budget to spend that can only be created by long-term planning, which shows how all these strategies are juxtaposed against each other.

4.2.4 Resilience Status of Hamamönü in terms of infrastructure and environment

The understanding of the resilience level of Hamamönü in terms of CRI implementation is infrastructure and environment, as the following indicator. The implementations are going to be evaluated through the capacity, quality, and effectiveness level of appropriate infrastructure and land use plan. Providing appropriate infrastructure and land use enhances the durability of the environment and improves the dwellers' comfort conditions.

And the resilient environmental design affects not only the dwellers but also the people who spend time there, such as students, tourists, patients, etc. For the infrastructure facilities, for the case of Hamamönü, the efficient use of energy, waste management (Riberio & Gonçavelles,2019:6-7), and accessibility of essential resources are going to be evaluated.

In this context according to the resilience indicators, it is needed to seek the answers to questions to understand the resilience level of Hamamönü which are;

To what extent we can provide efficient energy use in terms of building scale?

To what extent we can provide, proper infrastructure?

To what extent we can provide sustainable waste management?

To be able to understand the resilience level of Hamamönü in terms of efficient use of energy, it is necessary to determine the main energy usage areas. During the field study, it has been observed that both commercial and residential buildings use electricity as the main energy source. The primary energy usage areas are determined as;

1- Heating

2- Lighting (signage, advertisement signs, showcase)

3- Use of basic electronics (cooler, oven, screens)

The electricity and coal used for heating are the most common occurrence. Especially

for commercial use, the on-air areas, and gardens, are heated by electric heaters. However, for the residential areas, especially the secondary streets (Fırın, İnanlı, İlhan cavcav Streets), installing a stove is the most common way to heat the houses. For the upper scale, the stove-based heating conditions become outdated for Ankara. The main heating systems of Ankara are based on natural gas systems. And the use of natural gas in terms of heating and hot water provides 100% energy efficiency compared to coal and electricity. Moreover, it is one of the prominent actors in terms of eliminating air pollution. It is also safer and provides security by preventing fires and poisoning (AA, access date:21.09.2021).

In terms of natural gas use, Ankara is one of the regions the infrastructure was established at the end of the 1980s (AA, access date:21.09.2021). When it comes to 2000' the use of natural gas became widespread.

In the state of Hamamönü, increasing businesses and user density affected the use of energy rate. But it is impossible to compare the real energy consumption rate of houses and businesses because of their capacity. The energy consumption rate of Hamamönü increased after the rehabilitation project because of people's use. Various transformations have occurred in the region due to the rising energy use. Even though the use of energy increased in Hamamönü, gas infrastructure has only been drawn to certain streets (Figure 4.4). Intensive coal use has been largely converted to electricity. Interestingly plenty of houses still have no access to the gas line, and there is no intention to change the system. Secondarily, the use of coals, especially in the residential buildings, is the most common way rather than the businesses because businesses get electricity cheaper than the residents.

Using electricity is one of the inefficient ways to provide heat, yet there is no record of thermal insulation being made during the façade works of both businesses and residents. During the interviews held in the area, it was stated that the property owners in the region had heating problems, especially in the winter months and that the absence of natural gas in their neighborhoods inflicted financial damage on them, even though it was two streets away. The streets that have access to the natural gas pipe:

- Sarıkadı Street
- The northern side of Hamamönü street

- İnanlı Street (partial)

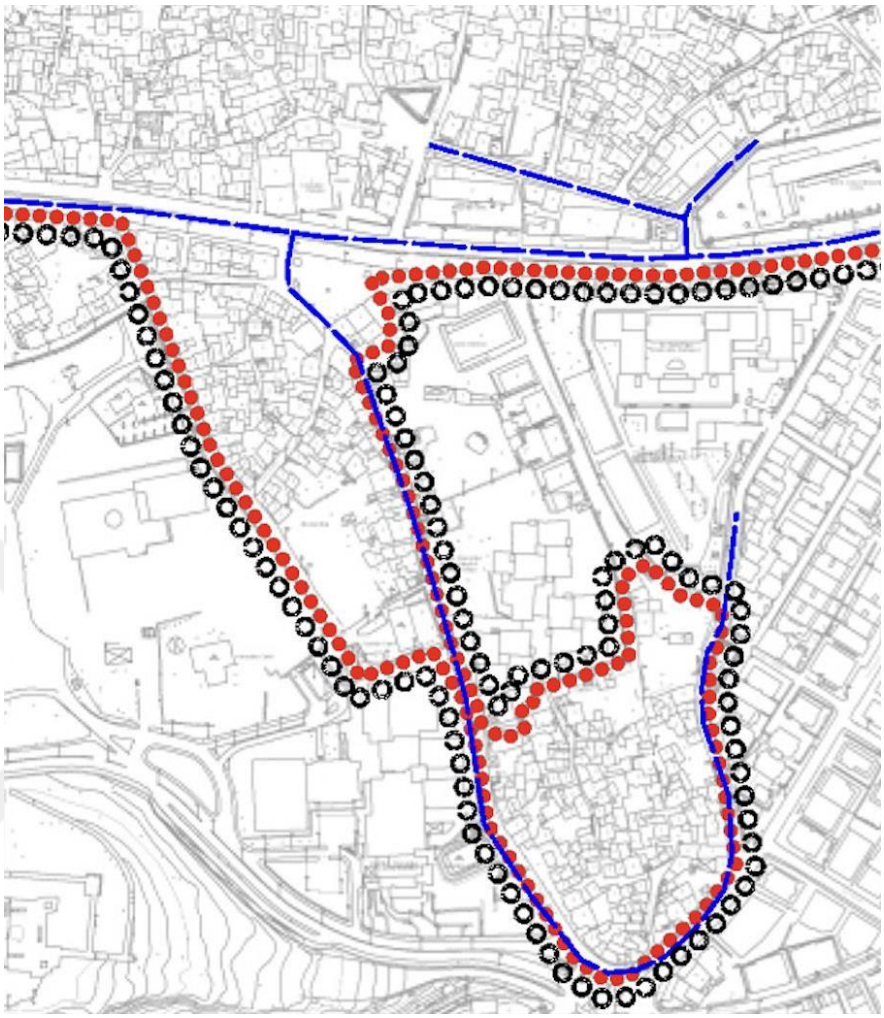

Figure 4.4: Natural Gas Line Altındağ (Ankara-Ulus Historic City Center Site Analysis Report, 2010)

As it is possible to understand from the map, the pipeline for gas infrastructure is provided for both Hamamönü and Hamamarkası region. Asthe Talatpaşa Boulevard is a mainline which can supply the secondary lines, it would provide energy efficiency to expand its use.

During the rehabilitation implementations, the streets were re-design to take the electricity line underground (Arslan, 2012: 97). And during this process, every street was excavated, and by expanding this street improvement, the accessibility to eco-friendly energy can be expanded.

Furthermore, among the infrastructural facilities, water management is another statement in terms of proper infrastructure that needs taking measurements. For the CRI index, the environmental concern in terms of the built environment is described as;

> A resilient city values ecosystem services and has in place robust environmental policies to protect ecosystems in situ. In resilient cities, man-made infrastructure and buildings are well-conceived, well constructed and safeguarded (Url-11).

Which emphasizes the priority of protecting the ecosystem throughout the infrastructural facilities. In terms of the Hamamönü Rehabilitation Project, the main water management is the issue that needed to be considered. The rainwater discharge is the main issue for Hamamönü. During the street rehabilitations, rooftops were also renewed almost for all buildings, and rainwater lines were applied. The clean water drainage works were carried out not only for the buildings but also in the street scale. The roofs were renovated according to the traditional Turkish architectural types mainly, and during these applications, it has been made for clearwater(rainwater) suitable to collect (Figure 4.5)..

At the same time, in the facade application works, it was foreseen and applied that this collected water should be properly removed from the building. The water removed from the buildings is given to the courtyard or the street from the buildings.The roof and the façade application are remarkable models of enhancing water recycling (Figure 4.6).. Proper water drainage also plays a vital role in protecting and sustaining structures. In this context, it can be said that it contributes in more than one sense to increasing resilience.

Figure 4.5:(Left) Fırın Street No:19 (Çakıroğlu,2021), (Right) İnanlı Street no:7 (Çakıroğlu)

Figure 4.6: Renovated Roofs (Çakıroğlu, 2021)

As it is possible from the plan scale, almost all roofs of the bıildings were renewed during the rehabilitation application. On the street scale, collected rainwater can be discharged from the drainage channels, continuing through all streets; the street application (Figure 4.7) allows the proper rainwater discharge from all streets of Hamamönü.

Figure 4.7:(Left) Hamamönü Street (Right)Intersection of Fırın and İnanlı Streets (Çakıroğlı,2021)

The water drainage channels collect the rainwater properly. Because the rainwater of the structures discharges the streets, it has also collected water that comes from the roofs. It should be noted that the work done up to this point has been very successful. During the regional studies, it has also been observed that collecting and evacuating clean water from the area is efficient.

Re-using and storing the rainwater water, which should be in the continuation of the work, in suitable conditions, or bringing it into the environment, is one of the applications ignored during the fieldwork.

The drainage channels were directed to the sewerage, and according to the records, there are no clean water discharge works within the scope of the infrastructure.

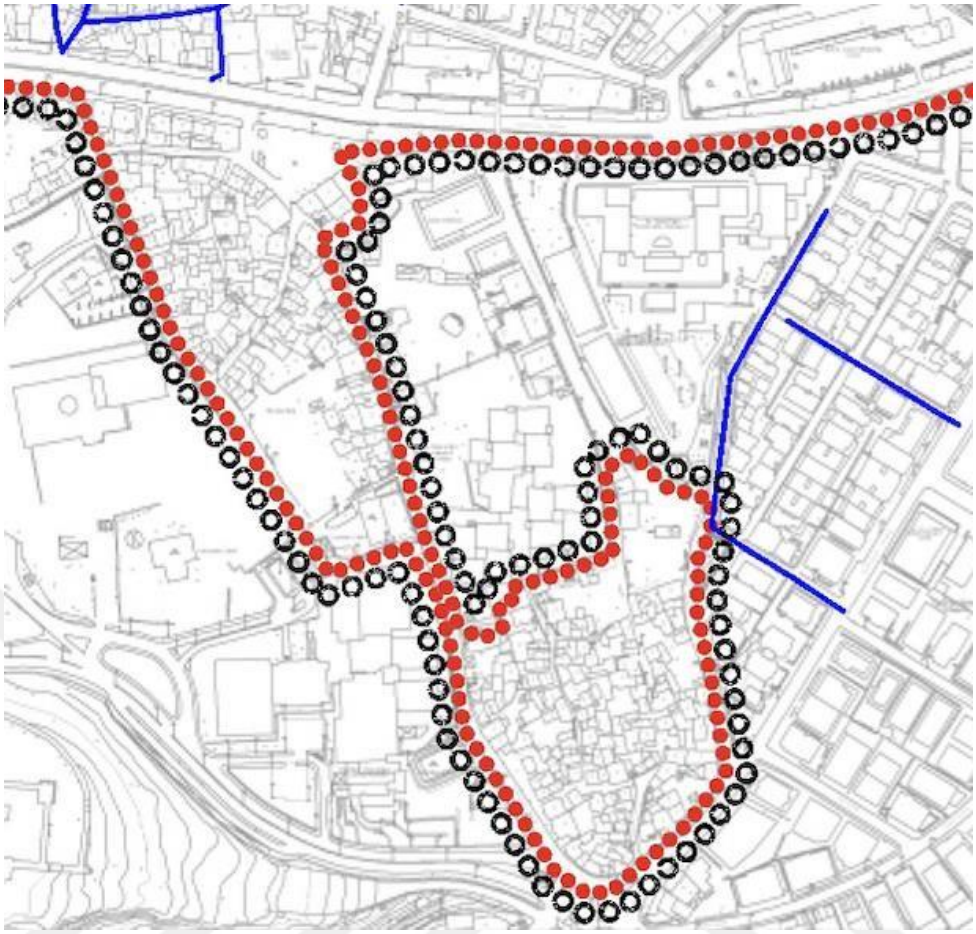

Figure 4.8:Rainwater discharge pipes (infrastructure application), (Ankara-Ulus Historic City Center Site Analysis Report, 2010)

As it is possible from the informative map (Figure 4.8), there is no clean water parsing infrastructctıre available. For water sustainability, the rainwater collecting and discharging implementation of Hamamönü can be considered resilient, and the collection and re-using of the rainwater infrastructure is not available, which makes the overall system incomplete.

According to the civil engineer Hasan Akyol (2022), the main reason behind the flood disasters which took lives, in Ankara, caused the overflow of the İncesiu river. Although it is considered as a sewage flood, the actual reason behind the floods is mixing sewage water with the river, and when heavy rains the clean water, sewage water, and river become overloaded to the infrastructure. The solution behind this is to separate clean water (rainwater and river) from sewage water to save lives.

Other infrastructure services of the Hamamönü region, electricity, and telephone existed before the rehabilitation project. As previously mentioned, the electricity and telephone cables were moved underground during the process, which provides a clean street view and protects the cable from extreme events or any accidents. For the case of waste management, there are several practices applied atthe scale of Ankara, which are separate bins for recycling waste, mobile teams that collect used oils, and battery boxes, which are also sent to Hamamönü.

Infrastructure services of Altındağ Municipality during the restoration works (2008 – 2013) and their costs were analyzed. The Municipality provided a total of 4.3 million TL resources for technical infrastructure services such as natural gas, electricity, water, canal, road, and telephone in neighborhoods within the study area. (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı (UTKM) Araştırma Raporu, 2010: 120-136).

Those services other than water, roads, and sewerage are not within the jurisdiction of the local municipalities; it has been required to fulfill the related services partially or entirely by the Metropolitan Municipality. Additionally, the infrastructure facility's cost of urban conservation and revitalization activities is also transferred to the Metropolitan Municipality. Therefore, it undermines the capacity of the community and the financial feasibility of the conservation and implementation activities. And many conservation practices are no longer applicable in terms of economic and social aspects (Tiryaki, 2014: 136).

The resilience status of the historic regions should be considered in accordance with its existing context. Unlike new construction projects, it already has its own systems. Even though these systems were not efficient or sufficient compared to the contemporary applications, there are several ways to enhance historic regions' status.

From the resilience perspective, efficient energy use in terms of building scale can be enhanced for the case of Hamamönü, by insulation works. and providing natural gas to the whole streets will also enhance energy efficiency. The implementation requirements are not entirely accomplished for Hamamönü, the resilience status of infrastructure and environment. In the case of energy use and eco-friendly energy use should be improved, increase efficiency, and prevent air pollution Similarly, completed infrastructural systems provide sources in terms of clean water and prevent flood disasters. Rainwater discharge applications should be fulfilled in order to sustain

water recycling.

In terms of electricity and telephone infrastructure, the street rehabilitation application is enhanced efficiently to preserve and maintain services. Therefore, it can be said that the infrastructure and environmental initiatives of Hamamönü are not entirely resilient but implied partially.

4.2.5 Resilience staus of Hamamönü in terms of material and artifact

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The resilience level of Hamamönü has been evaluated under the direction of the two most common guidelines. The RELi 2.0 is the second source to evaluate and understand the status of Hamamönü. Before the examination, it should be considered that RELi 2.0 is designed to assess the resilience status of the new projects. As previously mentioned conservation projects and construction projects are two different contexts in terms of their capacity, background, material use, etc. The reason why RELi 2.0 is accepted as an evaluation criterion is both for understanding the relationship between Hamamönü and its near surroundings and to understand how newly constructed parts of Hamamönü works.

And for the first implementation in terms of resilience from RELi 2.0 is material and artifact. Under these headings, the Full Life Cycle Design for Durability, Adaptability, Flexibility has been evaluated for the case of the Hamamönü project.

To be able to understand the level of resilience in terms of materials and artifacts of the selected project, it is investigated the selected properties such as;

- High degree of serviceability + reparability
- Constructions have strong joints and reinforcing
- Timeless, classic aesthetics (RELi 2.0, 2019:83)

Each of these elements contributes to a certain level from the guideline; if three of them are completed, the resilience level is considered enough. (RELi 2.0, 2019:84) Hamamönü case, the materials of the structural environment will be evaluated according to the requirements of material and artifacts.

The built environment covers the buildings and the built material of Hamamönü, street furniture and pavement of Hamamönü and squares and urban elements of Hamamönü; the landscape element is the Mehmet Akif Ersoy Park.

The level of serviceability of the buildings and building materials of Hamamönü is high because of the transformation of the buildings of Hamamönü. The serviceability level of the built environment is excessively high compared to the past. The rehabilitation application and façade improvement made the built environment more service-based buildings. In the case of conservation practices, such a high degree of transformation in functions brings negative consequences which were also observed at Hamamönü. For the self-critic, even though the high serviceability is considered a positive aspect and it makes more resilient for the new project, for the historic sites, the refunctioning considered very carefully. Over transformation practices from residential to commerce, not only cases to loss of population but also loss of material in terms of structural scale.

With the increase in the user density of the region, it is inevitable to provide economic and demographic circulations. It will help the problems that have emerged from the beginning and gradually increase problems that occur in the region.

The following statement of the material and artifacts is that the High degree of wear-resistant and hides scuffs is mainly focused on the artifacts. In the scope of this study, no reliable records were found regarding the status determination of the existing artifacts.

The final statement is related to the built environment in terms of construction reinforcement. As previously mentioned, the overall Hamamönü Rehabilitation Project aims to enhance the status of the built environment. The construction works are done on a different scale (Figure 4.9) to improve the conditions of the structures. For example, roofs are entirely replaced in street rehabilitation applications. Roofs are considered the weakest point of Traditional Turkish architecture. As a result of cold winters and hot summers in Ankara, the deterioration of the roof causes water to enter the building, which causes complete decay. Therefore, the roof's construction is the most critical factor that prolongs the life of structures. Therefore, the main reinforcement application is observed during the field studies is the roof-repair works. (Ankara-Ulus Historic City Center Site Analysis Report, 2010).

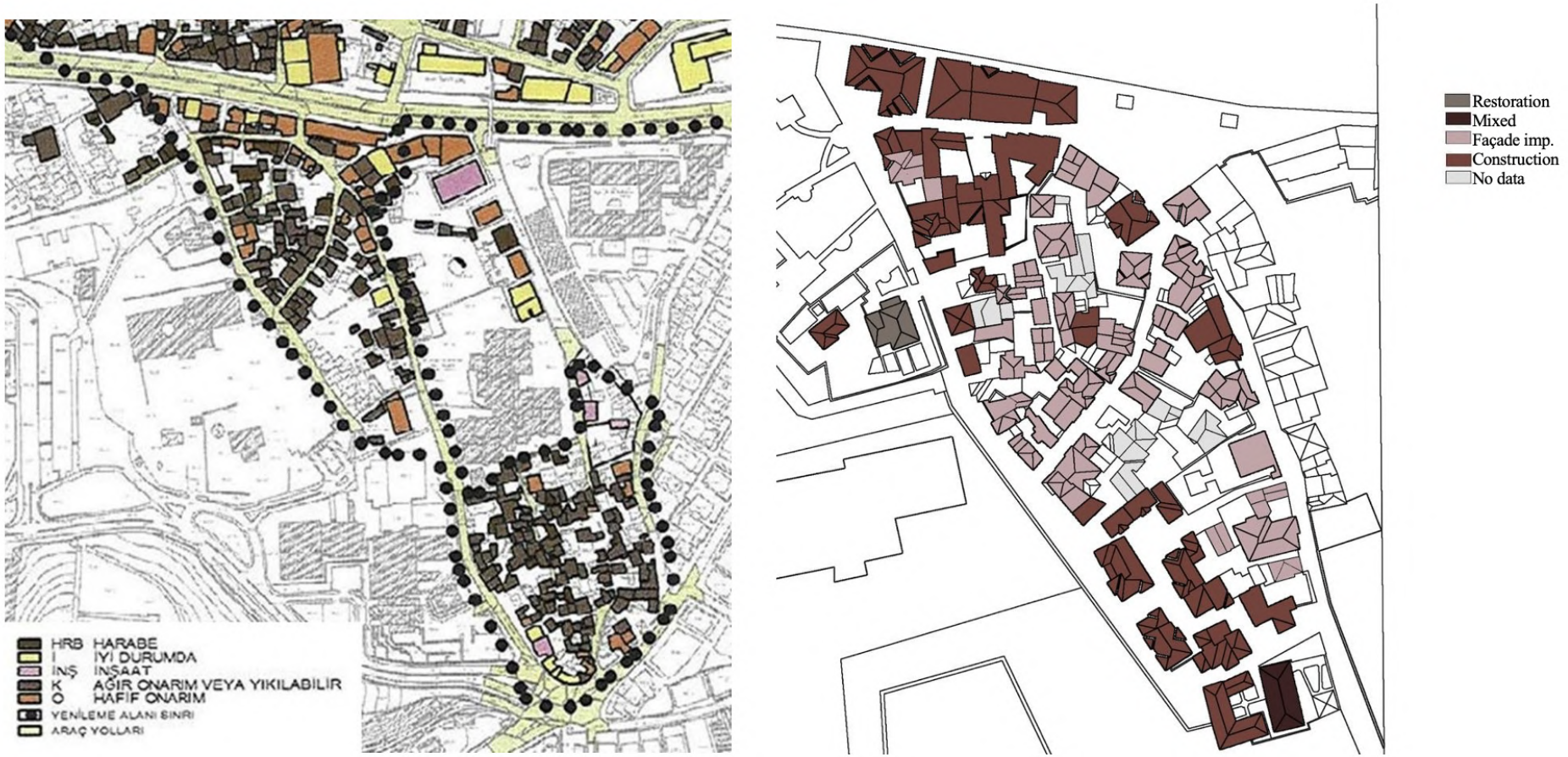

Figure 4.9: Comparative Structural and Material Conditions of the Buildings in Hamamönü (Left) Before the 2006 (Altındağ Municipality Archives, 2020), (Right) Current conditions of the buildings in 2021 (Çakıroğlu,2021)

The final statement for the Materials and artifacts is being timeless, classic aesthetic. To understand the aesthetic perception of the region, data on the status of residents and users were collected. It has been asked to people about their aesthetic satisfaction level in terms of rehabilitation studies, and frequently, the answer was positively (62,9%), the (3,1%) answered negatively, and the rest of them stated indifferent (18,9%). With a contribution to the previous studies, one of the major concerns among the infrastructure, town planning, transportation, and environment the aesthetics is evaluated as the third most crucial title by the residents and visitors of the region. Even though the perception of the rehabilitation project was considered positively, the main reason behind it was the clear street views.

By ignoring the requirements of the reconstruction and restoration application , and creating thematic spaces upon the historic sites, it cannot be considered as a resilient system. Instead, it brings an overload in terms of user density that will cause a rapid collapse.

To sum up, the urban resilience guidelines, provides researchers a general frame to understand what resilience is and how it protects the overall city systems. And it is also emphasizing the importance of the context. For the case of the conservation practices the necessities of the historic areas can be different from the new construction zones. But the main idea behind the resilience studies is to enhance and develop urban sites to make them sustainable for the future generations. To achieve it, self-assessments during the evaluation have critical importance.

4.2.6 Resilience Status of Hamamönü in terms of community cohesion, social and economic vitality

Among the RELi 2.0 resilience assessment implementation, the Community cohesion and social + economic vitality is the study's following phase. RELi 2.0 is a holistic approach to 'Improve the quality of life of all communities affected by the project and mitigate adverse impacts to communities' (RELi 2.0, 2019:51). The main idea behind the resilience assessment of community -cohesion and social, and economic vitality to understand the project area and its relation to the surrounding environment through accessibility, livability, and service facilities.

To be able to provide a qualified environment, the suggestions of RELi 2.0 suggest several indicators, that are evaluating the walkable environment, public transportation facilities, mixed-used built environment, and facilities including commerce, security, education etc. *(*RELi 2.0, 2019:51-59).

Walkability, public transit, and non-motorized transit evaluates both internal circulations and connection with the environment. Therefore, to understand the resilience level of Hamamönü in terms of community cohesion, social and economic vitality*,* it is necessary to understand both the district situation and surroundings.

The indicators of the community cohesion, social and economic vitality*,* is categorized as;

- Surrounding density and diverse uses,
- Access quality to transit,
- Bicycle facilities,
- Reduces parking footprint,
- Walkable streets and surrounded connectivity case,
- internal connectivity case. (RELi 2.0, 2019: 51-59).

Surrounding density and diverse uses are an inclusive attempt to reduce the negative impact of zoning and enhance the dwellers' quality of life and contribute to the evaluation and development of walkable and accessible areas. İt has been described as; 'To promote walkability, and transportation efficiency and reduce vehicle distance traveled. In addition, to improve public health by encouraging daily physical activity (URL-7). As stated before, the RELi 2.0 is generated by the same corporation (USGB Inc.); which also developed The LEED certification system. This is the main reason why RELi 2.0 has a base point from it.

Surrounding density and diverse uses, is calculated as: for the case of the renovated or newly constructed building, the services that should be located within 800 meters of the main entrance of the building within walking distance are as, food retail (supermarket, market that provides food and grocery, etc.), community-serving retail (convenience store, farmers market, pharmacy, other retail, hardware store, etc.), services (bank, entertainment services, gym, hair care, cafe-restaurant, etc.) civic and community facilities (child care, cultural arts facilities, any educational facility, clinic, fire station poliçe station, public library, public park, etc.).

In case that at least 60% of the services within this distance are met, the studies carried

out in the resilience context will be sufficient at the certain level (Table 4.4). The diversity of the services should count only one time. To represent if there are five restaurants or more, it does not mean that the whole services are fulfilled; the quality of the services should be counted instead of the quantity (Url-7).

Table 4.4: Variety of services (Çakıroğlu, 2021)

	TYPES OF SERVICES	**SHORTEST DISTANCE TO THE TANIŞ STREET**	**SHORTEST TO THE HAMAMÖNÜ STREET DISTANCE**
FOOD RETAIL	MARKET	270 meters	180 meters
COMMUNITY – SERVING RETAIL	Pharmacy Convenience store Hardware store	200 meters 600 meters 500 meters 120 meters	160 meters 800 meters 640 meters 80 meters
SERVICES	Atm/Bank Hair care Restaurant etc.	600 meter 530 meters 15 meters	790 meter 330 meters 5 meters
	Adult or senior care (licensed)	220 meters	440 meters

CIVIC AND COMMUNITY FACILITIES	Child care (licensed)	480 meters	690 meters
	Community or recreational center	180 meters	390 meters
	Cultural arts facility	100 meters	30 meters
	Education facility	630 meters	790 meters
	Government office that serves public on-site	770 meters	570 meters
	Medical clinic or office that treats patients	180 meters	380 meters
	Place of worship	30 meters	210 meters
	Police or fire Station	430 meters	640 meters
	Post office	180 meters	280 meters
	Public library	150 meters	360 meters
	Public park	310 meters	50 meters

The measurement of the walking distances were calculated for both Hamamönü and Tanış Streets which are the northern and southern boundaries of Hamamönü and where the edges of Hamamönü. The reference points of Tanış Street and Hamamönü Street and the distances between service points are measured by the Yandex map route calculator (Url-13).

The second indicator is the access quality to transit. The intention behind encouraging

public transportation by having multimodal transportation choices to reduce private motor vehicle use. The assessment of quality level to transportation is like the previous example. The distance between the project and the planned bus, street car, or informal transit stops can be 400 meters by walking. Alternatively, within 800 meters, there should be planned bus rapid transport stops and stations with opposite directions. (Url-7).

In the field study chosen references, and the distances are calculated by the Yandex map route calculator.

Table 4.5: Variety of Public Transportation

TYPES OF TRANSPORT	SHORTEST DISTANCE TO THE TANIŞ STREET	SHORTEST TO THE HAMAMÖNÜ STREET DISTANCE
Bus stops	210 meters	420 meters
Subway	363 meters	613 meters
Commuter train	400 meters	650 meters
Informal transit stop (Dolmuş)	170 meters	50 meters

The transportation facilities of Hamamönü have extensive range. There are four roundtrip bus stops usable and 23 different routes are available. The number of hours per day differentiates between 6 to 54, which means these four bus stops are highly accessible (EGO, 2021).

For the subway, the Ankara A1 line distance to Hamamönü Tanış Street are 363 meters. Available between 00.00- 23.45, and for the weekdays every 5-15 minutes a train service opens, for the weekends the number of trips are lesser than the weekdays (EGO, 2021). The commuter train is also near the subway, which follows a different route than the subway, which is available between 6 am to - 21.45 pm every 15 minutes. (Başkentray.org, 2021) The informal transit stop is called 'dlmuş,' and for the stops of informal transits, there are no strict rules throughout the route. Throughout the Talatpaşa boulevard, there are 20 different routes open. As a result of the proximity of the Talatpaşa boulevard, the Hamamönü region has become quite accessible.

Diversity of accessibility provides efficiency in terms of access quality and transit. The following requirement is that the bicycle facilities for the RELi 2.0 ;

- 3-mile bicycle route
- Network between service facilities
- Safe storage for the bicycles

There is no application observed to facilitate cycling. the Hamamönü region and the surrounding area, The bicycle facilities of RELi 2.0 require that no conditions were met.

Therefore, the final requirement of the structural environment is reducing the parking footprint. To be able to minimize the associated harms with parking facilities, such as dependence on the automobile, rainwater runoff, or wasting land, the suggestion in terms of enhancing resilience capacity is not to exceed minimum local regulation requirements at the first stage (LEED V4, usbc.org., access date: 2021).

In terms of regulations and legislation, parking in the historical area there are no restrictions in quantitative terms. Instead, alternative solutions are being directed in case of not meeting the parking needs in the protected area (Resmi Gazete, 2021, no. 31434). In the case of Hamamönü, with the centralized location of the region and differentiated use, the need for parking lots becomes high. Therefore, to be able to meet, Hacettepe University has done constructions at a different scale to create parking lots.

As previously mentioned, the Hacettepe university has expanded its border since the first date it was established. Among this expansion, the iconic Hacettepe park has been demolished, and instead, the Hacettepe parking lot was constructed. The constructed parking lot is currently used by hospital staff and patients. Not only within the Hacettepe university border, there is also because of the proximity of Altındağ Municipality there are other parking lots available nearby Hamamönü. The parking lots and their capacity are quite different from each other.

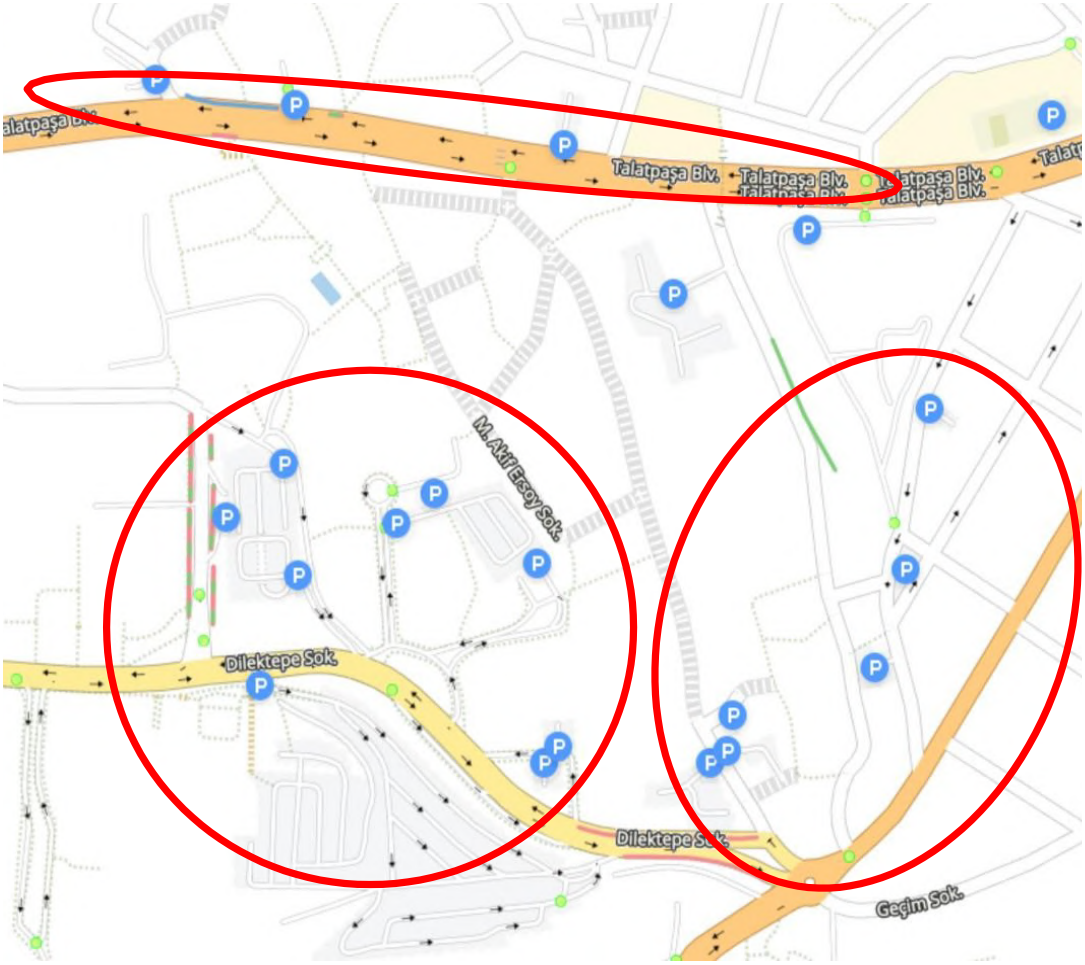

Figure 4.10: Parking Lots of Hamamönü (Çakıroğlu)

The prices and the accessibility of them differentiate from each other, and capacity as well. The requirements of the RELi 2.0 in terms of reducing parking footprint are not to exceed the valid legislation and law. Moreover, increasing shared parks instead of restrictions will enhance the accessibility to meet the needs of private car owners

The legislation and laws emphasize meeting necessity instead of capacity and accessibility, which are not exceeded, the shared use policy is not entirely applied. During the interviews, it has been asked to the participants to identify the three most critical problems they encountered at Hamamönü. The parking lot problem is among the highest.

Table 4.6: Most important problems of Hamamönü

What do you think are the 3 most important problems you encountered during and after rehabilitation applications in Hamamönü District?	**Percentage**
Parking lot, landscaping, infrastructure	18%
Pedestrianized streets and narrow streets	11,5%
Noise problem	11,2%
İnequalities among businesses	6,5%
Restrictive protection policies	6,1%
Security	4,7%
Rent prices	4,3%
Expropriation	3,6%
Field management	3,2%
Slow application process	3,6%
Others	5,8%
No significant problem mentioned	21,6%

According to dwellers and the people who work at the Hamamönü, because the building has no parking lot, it is a necessity to use private parks or other alternatives. Furthermore, both private and parks along the way are not free

(Prices differentiate according to usage time 0- 15 minutes free, 15-60 min. 5 tl, 1-2 hour 7 tl, 2-4 hour 9 tl, 4-8 hour 12 tl, 8-24 hour 15 tl (Url-14).
Considering the length of working hours, the prices between 12-15 tl per day, for the six days per week means 72-90 tl, 288 to 360 tl per month. Although the Hacettepe parking lots are partially available for shared use, and the prices are affordable for irregular users, the conditions of the regular users should be reconsidered.

The relationship between Ulus and Hamamönü is another measurable parameter according to RELi 2.0 and these measurements are based on the accessibility, connectivity, and juxtaposition of the main roads.

In that case, the intersection per square kilometer between 78-89 is the minimum range for considering connectivity level. Even though the location of Hamamönü is relatively centralized, due to being surrounded by the campus, the intersection and juxtaposition of the main roads are less than 79.
It has been counted as 44 intersections (excluding dead-end streets and done-way entrances). Those are lower than the minimum range of RELi 2.0. The context of the relationship with the environment is not enough considering the numerical data and requirements at the city scale.

Figure 4.11: Intersections of roads (Çakıroğlu,2021)

The following statement is to have walkable streets. The walkable street intends to provide a safe and comfortable environment that also supports public health (Url-7). The requirement of the walkable streets are;

- 90% percent of the buildings should have functional access to the circulation network of the area
- Minimum 15% of the buildings should provide a 1:1,5 building-street ratio
- Project must cover at least 90% of the proper sidewalk (pedestrianized streets included) According to the concept of traditional Turkish architecture, entrances of the buildings are either directed to the courtyards, or directly to the buildings. The street view in Figure 4.12 shows some examples of the house entrances.

Figure 4.12: Western Elevation of Sarıkadı Street (Altındağ Municipality Archives, 2021)

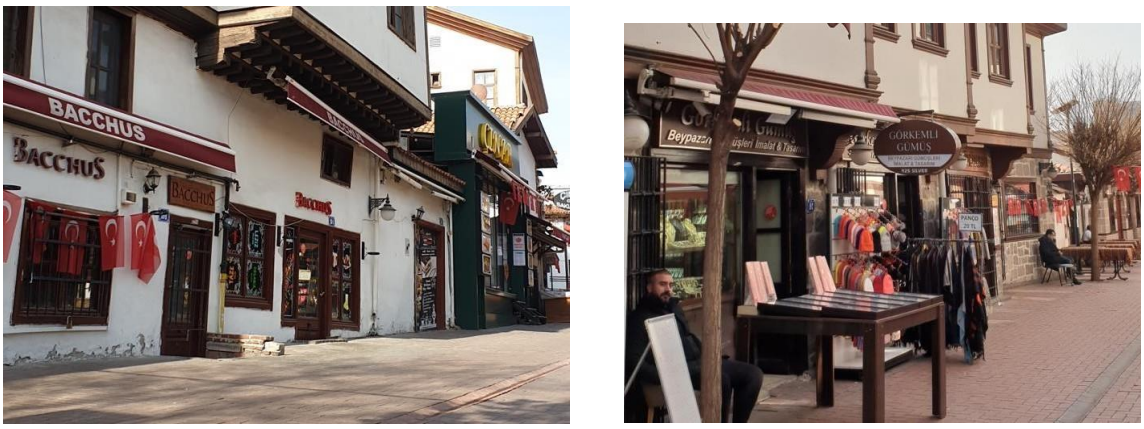

Figure 4.13: (Left) Southern view of Sarıkadı Street (Right) Southern view Hamamönü Street (Çakıroğlu,2021)

Even though the entrances of the buildings were rearranged with the Rehabilitation Project; it has been observed that each building had its direct or indirect entrance (through the courtyard).

The street to building 1:1,5 ratio is to meet at least 15% of the all-built environment. Therefore, the streets of Hamamönü were expanded during the rehabilitation period, even though the original texture of the streets was rather narrow (Arslan, 2012: 58).

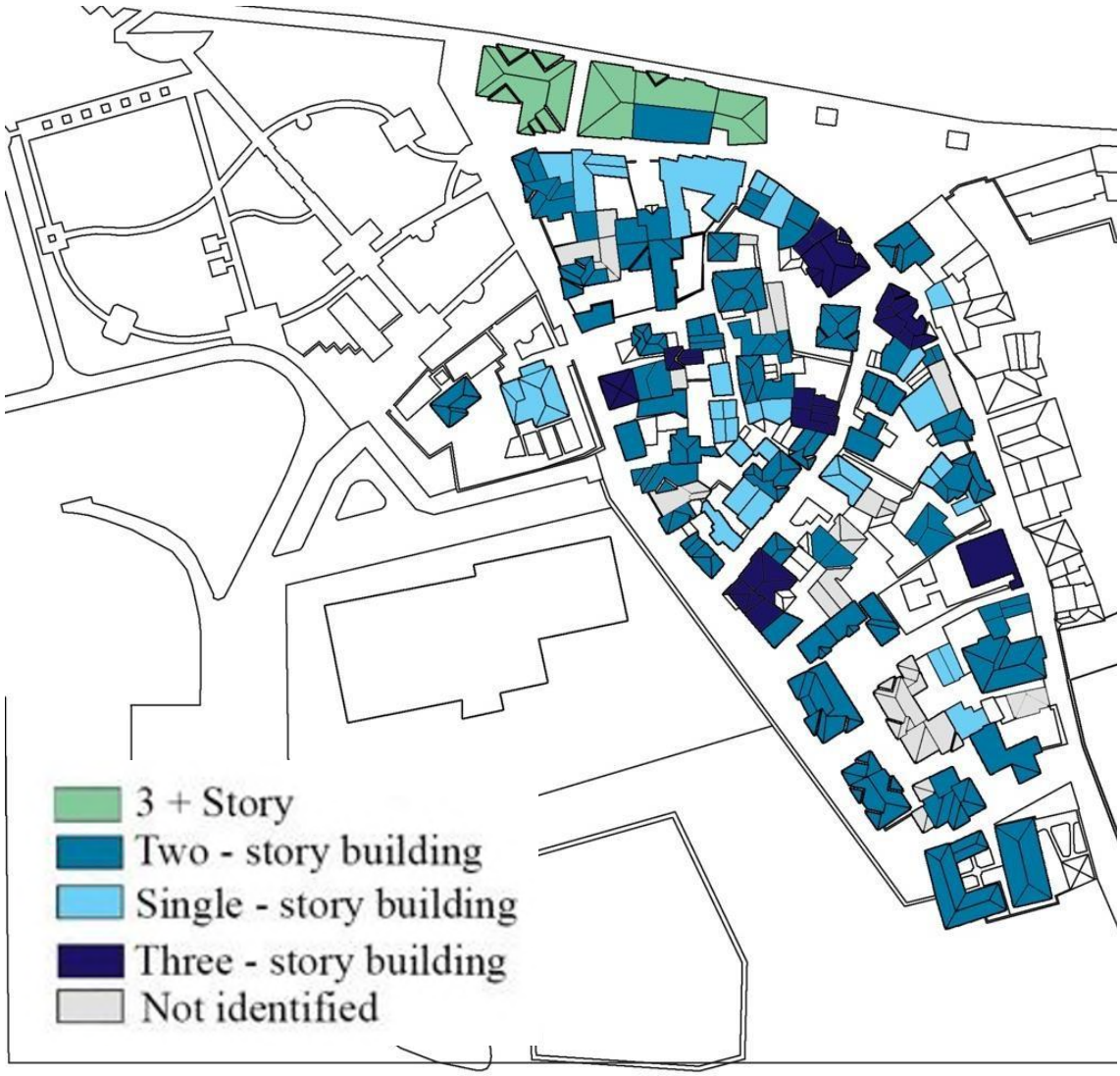

Figure 4.14: Current Number of Building Floors in Hamamönü (Çakıroğlu,2021)

According to Figure 4.14 above, the number of floors in Hamamönü changes between 1 and 3 floors, but includes mostly two-story buildings (7.80-8.50 m). Widths of the streets in the study area differentiate.

For Hamamönü Street: 4 – 7 meters

For Mehmet Akif Ersoy Street: 4 – 11 meters

For Fırın Street: 2,5 – 4 meters

For İnanlı Street: 3 – 5 meters

For Dutlu Street: 3,5 to 7 meters

Total number of the buildings in the study area is 127. When the street to building ratio are checked, only Fırın Street and İnanlı Street do not give the required ratio. In terms of sidewalk capacity, the overall Hamamönü rehabilitation site is pedestrianized at 100%, the pedestrianized area is between the Hacettepe parking lot entrance (at the end of Sarıkadı Street) and Hamamönü Clock Tower Square. For the internal connectivity, the public space-private space connection should be provided. The following part aims to evaluate the internal connectivity of the Hamamönü area. The pedestrianized streets that provide wide access to public spaces (to Mehmet Akif Ersoy Park), and Clock Tower Square) are the requirements of the RELi 2.0.

Additionally, observing the change of connectivity over time is expected to help us understand the change of social life in conservation sites. In addition to RELi 2.0, the connectivity status of Hamamönü was examined with the help of GIS systems, to understand change over time. The level of connectivity within the scope of Hamamönü, space syntax maps have been used for evaluation. Space syntax is a method for analyzing and understanding the relationship between the built environment and the social indicators in an urban environment (Klarqvist, 1993:11) The concept of space syntax can be examined under three conceptions; convex, axial, and isovist space (Klarqvist, 1993: 11). The Axia is one that is followed within this study which is 'an axial space or line that is a straight line possible to follow on foot'. And similarly, the 'axial map depicts the least number of axial lines covering all convex spaces of a layout and their connections' (Klarqvist, 1993: 11). The system allows all three conceptions to be transferred into analytical outcomes, graphs, measures, etc. in the context of this thesis study; the analytical outcomes are

transferred into connectivity and integration maps. *'Connectivity measures the number of immediate neighbors that are directly connected to a space. This is a static local measure.'* (Klarqvist, 1993:11).

The second analysis is the integration which is a static global measure. It describes the average depth of space to all other spaces in the system. *Thus, the spaces of a system can be ranked from the most integrated to the most segregated'* (Klarqvist, 1993:11).
To understand and analyze the connectivity and integration status of Hamamönü, six different maps are prepared. Each two of the maps from different periods show how Hamamönü changed in time. The first map is prepared according to the cadastral plans of 1939, the second map was prepared right before the rehabilitation project according to satellite maps in 2005, and the last one was prepared according to a plan of Altındağ Municipality. GIS enables us to understand the physical changes, in addition to being an indicator of social effects, which make designers predict future physical social even structural use, which will be explained in further detail.
The first map dated 1939 is derived from the cadastral map of 1939 Ankara Hamamönü. With the help of the GIS (space syntax- AutoCAD 2021), the connectivity and integration maps are prepared to understand the status of Hamamönü. To be able to understand the status of Hamamönüi its close environment is shown on the map dated 1939. It also shows the streets occupied by both TalatpaşaBoulevard, Hacettepe University hospital and the dormitory area.

Figure 4.15: (Left) Connectivity status of Hamamönü in 1939, (Right) Integration map of Hamamönü in 1939.

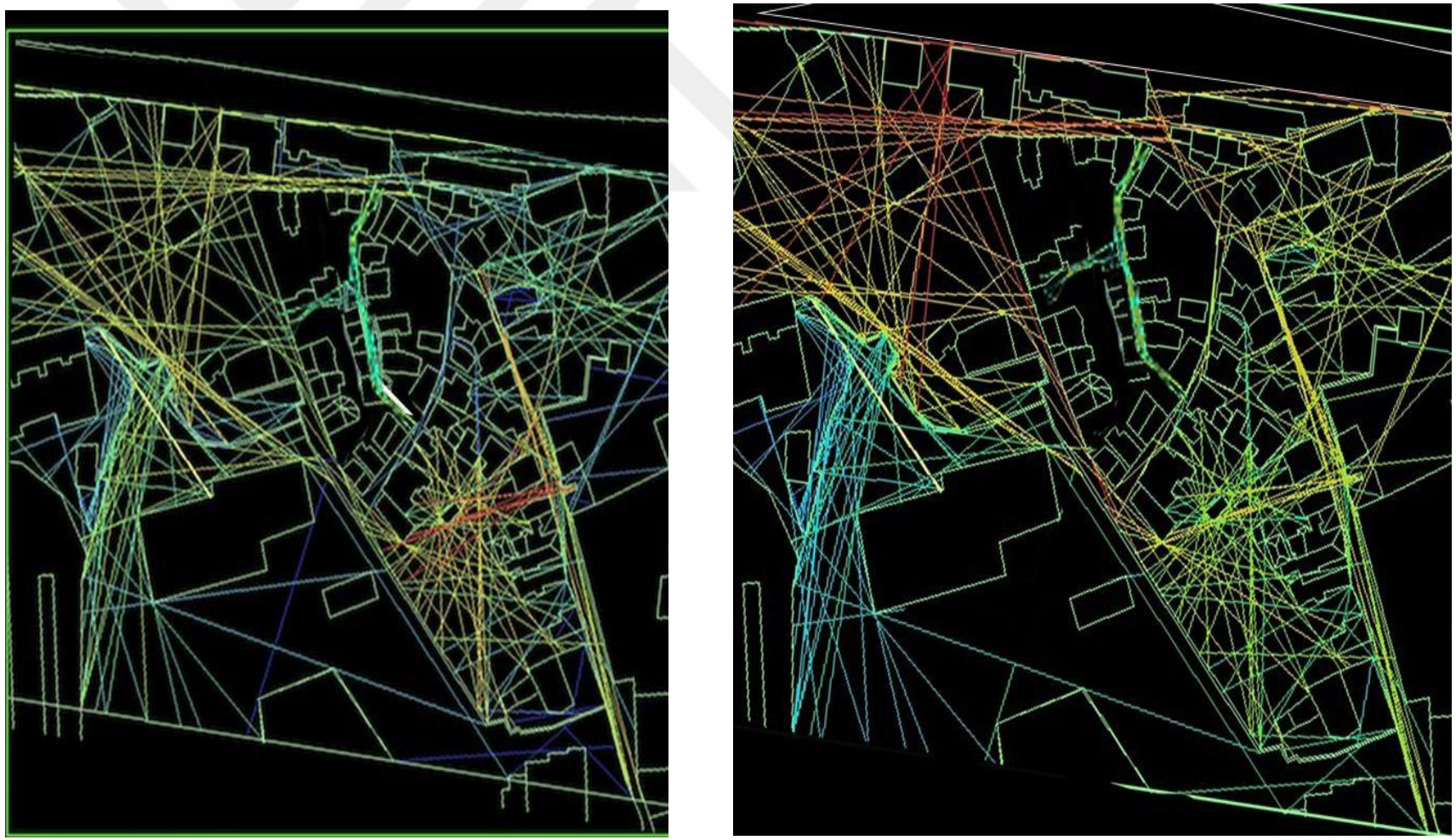

Figure 4.16: (Left) Connectivity status of Hamamönü in 2005, (Right) Integration map of Hamamönü in 2005

Figure 4.17: (Left) Connectivity status of Hamamönü in 2015, (Right) Integration map of Hamamönü in 2015.

The space syntax analysis provides an opportunity to understand and evaluate the design process not just as a physical entity but a changing mechanism (Dursun, 2007: 10). By following the different periods, the space syntax enables us to understand both the current connectivity status of Hamamönü and the previous conditions of it.

Depending on the maps of 1939, the connectivity level of Hamamönü and the design patterns of buildings are considerably different from the current situation. On the street scale, the highest connectivity level observed at Sarıkadı Street and Hamamönü street is high to medium level, and the rest is differentiated from medium to low. For the case of connectivity level in 2005, the majority of the pattern of the built environment got vanished and the street circulations were damaged, the open space-street- built environment correlations also vanished. Fırın Street and İnanlı Street have remained still. The deterioration and removal of the street pavements also changes the perception of the built environment. Among all three time periods, the most complicated and irregular connectivity level found out to be in 2005.

When it comes to 2015, the level of connectivity becomes legible again. The streets were redesigned and re-organized. The highest connectivity level exists at Mehmet Akif Ersoy Street, park, the Clock Tower Square, and Dutlu Street. Their positions were changed in terms of connectivity.

As previously mentioned, the space syntax analysis and related measurement are also considered social indicators (Klarqvist, 1993: 13). Thus, the change of spaces provides us the predictions regarding social patterns (such as the use of space accessibility, etc.).

According to the field study and observations carried out during this thesis period, the more connectivity level means the more openness along the streets. The level of accessibility affects the level of privacy.

Traditional housing patterns for Islamic societies value the dwellers' privacy level. The streets and the physical environment are designed to maximize security by controlling the level of accessibility. Therefore, changing connectivity level in the street scale changes the level of accessibility and privacy.

Reorganization of the street patterns affected the integration level of the overall built environment. The change of integration level can be an indicator of the movement patterns and their social meanings (Dursun, 2007: 12). The integration level of Hamamönü has also changed since 1939. At the beginning, the integration level of the environment was distributed almost equally among open space networks. When it comes to 2005, the integration level became unstabilized as Talatpaşa Boulevard was opened, and the damage on the physical environment and the integration level was distributed at different levels. After the rehabilitation project, the integration level has changed significantly as well

The change of integration level is considered according to the indicator of the pedestrian flow. Arising views on the topic, the movement creates functions, which means the more people, the more functions change (Klarqvist, 1993: 13).

For the case of Hamamönü, the predictions become a real issue; the more pedestrian movement had a significant impact on the change of a function. As a result, the buildings located on the streets become more integrated into the environment, transformed in terms of function. However, especially at Hamamönü Street and Mehmet Akif Ersoy Street was directly transformed in parallel with the integration level, and for the case of Fırın Street, the integration level remained stable, where the level of functional change rarely appeared.

For the case of Sarıkadı Street, the integration level is compared with staying at a medium level due to newly constructed buildings designed as a cluster, where the special events or functions are carried out.

The changing level of connectivity and integration provided accessibility, enhanced functionality, and improved security for the case of Hamamönü. After collecting data, one of the most common answers to the problems of Hamamönü comes out as noise, crowdedness and lack of privacy.

The GIS systems enable us to understand and observe the relationship between social and physical environments concerning the setting of Hamamönü. The prominent advantages of the GIS and the similar analysis provide clues about advantages and disadvantages of possible situations before the application phase.

For the state of Hamamönü, an enhanced level of connectivity provided accessibility and a more walkable environment with security but damaged the privacy and comfort.

Considering the design of the structures in the field, it is necessary to calculate the soil parameters, bearing capacity, swelling, and settlement values in detail with the ground survey studies. And the appropriate foundation reinforcement applications should be done.

The suggestions to protect the structural environment at risk for fire protection, addresses both authorities and the users of Hamamönü. To be able to protect environment; the subjects related to fire and its possible damages should be taught to people, the availability of basic fire kits should be encouraged, cables, installations and combustible materials should not be left in the open, insulation materials should be chosen accordingly, fire regulations must be followed in building designs/planning. (Oyamel, 1998).

Raising awareness in the local community and scheduled measurements of observations are of vital importance not only for the safety of the built environment, but also for the safety of the residents.

The resilience level of Hamamönü in terms of hazard preparedness, mitigation, and adaptation, is sufficient to describe the potential threats and risks. However, preparedness against the emergencies are not subjects that are worked over.

4.2.7 Resilience Status of Hamamönü in terms of Panoramic Approaches:

Among the resilience studies, the following implementation of the RELi 2.0 is the panoramic approach. The intention behind the Panoramic approach guiding to enhance the level of perception of owners and their contributions to the project. The significance of the panoramic approach is the educational level of the general concept.

> Beginning in solicitation and continuing throughout the design phases, identify opportunities to achieve synergies across disciplines and building systems. Use the analyses to inform the owner's project requirements (OPR), basis of design (BOD), design documents, and construction documents (Url-7).

Panoramic approaches support the participatory design process. Informing the owners from different education levels is a challenge in terms of urban design studies. But to fulfill this requirement is one of the major responsibilities of project management. Meeting the demands and expectations of the participants within the scope of the project not only extends the lifespan of the project but also provides effective and proper use.

According to the personal interview with the municipality office for the case of Hamamönü, the project management is the Altındağ Municipality, and, before the application phase, the project management carried out several meetings to inform the residents about the application phase and overall progress. The participation level was considerably low, the main reason behind it was the education level of the residents. During these meetings, the residents were informed that the façade improvements and street rehabilitations were carried out by the municipality. And they also encouraged renewing the interiors of the houses.

But because the change of function started after the street rehabilitation and façade improvement the internal renewal makes the houses service buildings. And there were no restrictions or legal regulations to prevent that. Another aspect to mention, lack of administrative probation, is the fear of losing votes. From a political perspective, the pressure on the electorate causes the loss of the administration in the following election. If there are precautions to take on the residents to prevent functional changes,

or an arranged rent increase, basically putting limits over potential income sources, it is believed to gain dislike of the resident.

In this context, the circumstances of the participatory area management for the historic sites should be considered separate. Identifying the potentials and opportunities to enhance the efficiency level of the projects is important. But analyzing the long-term consequences is also important. and taking precautions in accordance with analyses is another phase that should be free from the interests of individuals.

4.2.8 Resilience status of Hamamönü in terms of Hazard preparedness, short-term hazard preparedness, mitigation + adaptation

Hazard preparedness and mitigation is a contextual framework to understand and analyze the status of physical, and environmental, against natural threats such as earthquakes, extreme weather events, emergencies, epidemics, pandemics, thermal, solar radiation, flood, etc. The main intention behind the Reli 2.0 implementation in terms of Hazard preparedness, mitigation, and adaptation is to protect both environment and the community. And the first action to take preparing an emergency plan against common hazards and extreme events and ‘provide fundamental safety for occupants during periods of disaster and/or emergency (RELi 2.0 2018, p.20).

To be able to prepare emergency plans for common hazards and extreme events, it is necessary to identify the threats and hazardous materials. And it is also needed to discover risks.

The physical risk and threats of Hamamönü have been studied before the application phase of rehabilitation. As a result of the classifications made during these studies, the region was included in the classification of problematic areas in terms of swelling and settlement, where precautions should be taken (Ulus Tarihi Kent Merkezi Kentsel Sit Alanı (UTKM) Araştırma Raporu, 2010: 82). The measurements of dynamic elasticity modules, maximum slipping modules, bulk modulus of incomprehensibility and self resistivity measurement were made. Considering the situation of Ankara, being 4. Degree of the earthquake zone, the majority of the historic city center including the Hamamönü, is assessed as a problematic zone The soil type of the majority of the area, is assessed as moderate corrosive (caustic). Which means the dissolves the materials of base (UTKM, 2010 :83-85). As it is previously mentioned heavy rains caused a

flood. And the near surrounding of Hamamönü, the Cebeci Mamak region was the most affected region from the over rain, which shares a similar soil typology. For the long-term consequences, over rains, floods, and extreme weather conditions can be irreversible. Identifying potential hazards and risk is the starting point to enhancing Resilience status, preparing a safer design for extreme events is the next step to take. According to analyzed data to be able to provide and protect the structural environment the suggested precautions are as follows

- As a result of the studies carried out in the field, water wells were found at 7 meters and 11 meters depths. The situation of the region during the rainy seasons should be kept under control and necessary drainage measures should be taken.

- Considering the design of the structures in the field, it is necessary to calculate the soil parameters, bearing capacity, swelling, and settlement values in detail with the ground survey studies. And the appropriate foundation reinforcement applications should be done.

The suggestions to protect the structural environment in risks for fire protection, addresses bot authorities and the users of the Hamamönü. To be able to protect environment; the subject of fire and possible damages should be educated to the people, the availability of basic fire kits should be encouraged, cables, installations and combustible materials should not be left in the open, insulation materials should be chosen accordingly, fire regulations must be followed in building designs/planning. (Oyamel, 1998)

Awareness raising of the local community and scheduled measurements of observations are of vital importance not only for the safety of the built environment but also for the safety of the residents.

The resilience level of Hamamönü in terms of Hazard preparedness, mitigation, and adaptation, is sufficient to describe potential threats and risk. However, preparedness against the emergencies are not subjects that are worked over.

5. SUGGESTIONS AND CONCLUSION

The Hamamönü Rehabilitation Project is a unique rehabilitation project by being a cornerstone in terms of rehabilitation studies of Turkey. After the implementation of the Hamamönü region, Ulus, Kale, Hamamarkası districts were rehabilitated. Additionally, the old city center of Ankara and currently Saraçoğlu Neighborhood is another urban rehabilitation region. Street rehabilitation, regeneration policies and applications are carried out in Ankara, Safranbolu, Tokat, Kastamonu, and especially in İstanbul. By being the starting stage, Hamamönü is a remarkable example to understand and study. After a decade, the problems and the potentials of Hamamönü are available to study, including Covid 19 Pandemic.

For the suggestion, an evaluation of conservation and rehabilitation studies in historic sites will be divided into parts which are suggestions for Hamamönü, and suggestions for future projects. The main reason behind that resilience is case based and context-oriented notion to evaluate. Moreover, because the standard bases of rehabilitation and conservation projects are similar in Turkey, it is planned to demonstrate conceptual frameworks for future resilience studies throughout the Hamamönü case.

Considering the development of Hamamönü in the city scale, the role, and importance, how the area was developed, and the historical context of Hamamönü is crucial to understand. and to be able to solve these problems creating a basis that originates from the past, and strengthen the future of Hamamönü.

5.1 Suggestions for Hamamönü

The conservation and rehabilitation studies within the scope of this thesis in terms of Hamamönü were completed in 2010, ten years after several problems occurred.

The administration of the area was changed, the demography changed, and both the physical and structural environment also changed. When the changes are observed from the perspective of resilience, several issues need to be reconsidered. The resilience status of Hamamönü, according to RELi and CRI implementations, has already been evaluated. And for this section, potential solutions to these issues will be mentioned.

Hamamönü is considered as an open system in Ankara, the suggestions of Hamamönü were divided into the neighborhood context (within the system) and in the urban context (concerning the environment).
Investigating and determining the resilience status of Hamamönü according to the CRI and RELi 2.0, analyzed and discussed in detail in the previous sections. For the following part to enhance the resilience status potentials and possible suggestions will be mentioned. Furthermore, to make a comparison, the resilience status of each level will be explained briefly with their possible solutions.

Hamamönü is a complex open system, the resilience status, and possible suggestions are listed as follows at Table 4.7 , 4.8, 4.9, and 4.10, for CRI ; 4.11, and 4.12, 4.13,4,14 for RELi 2.0:

Table 4.7: Suggestions for Hamamönü (CRI Leadership and Strategies)

GUIDANCE	Evaluation Criteria	INFORMATION	SUGGESTIONS TO ENHANCE RESILIENCE STATUS
CRI	Leadership and Strategies	Facts And Problems	
		Current status of the rehabilitation applications based onUlus Historical City Center Conservation Improvement Development Plan No conservation plans were prepared since 2008	The conservation plans for the case of Hamamönü and the Ulus regain should be prepared immediately.
	Budget	Fact: The economic sources of conservation and rehabilitation projects are provided by the taxes, and a majority of them founded by the central government Problem: The budget of the project was managed only for the application phase; the further economic needs were neglected	1) Economic sources and divisions should be prepared in three phases 1) Preparation for the project, 2) application budget 3) Economic sources for further processes. Because the area is under the control of a local municipality, the economic burden becomes only the problem of local authorities. Instead, the burden should be divided. 2) Another option for the case of Hamamönü is that several new buildings were constructed. Many of them were given to private users as rental or sold. Those buildings and their budgets can be saved to create a budget for further needs.

Table 4.7: Suggestions for Hamamönü (CRI Leadership and Strategies) continues

	Application	Fact: only face-lifting and superficial development applications were made on the building and street base, Problem: The applications on the buildings at a later period, without concerning the originality of material, craftsmanship caused loss of the original structures of the buildings. Face lifting applications are not preventing decay of structures Street rehabilitation should be carried out in accordance with the original urban morphology.	1) Properties of tangible cultural heritage assets and the original texture of them should be protected and preserved in any circumstances. Within the project site, if it is necessary, new construction initiatives should be carried out without any degradation of existing texture 2) The contractors of the construction teams must include restoration experts. 3) Transformation and functioning of the existing structures must be regulated, and should be restricted if necessary. 4) Expertise and consulting opportunities should be provided to the building owners. 5) Infrastructural facilities (gas, sanitation, etc.) must be completed to provide a more sustainable environment.
	Observation	Fact: While creating the project file, sustainable design approaches were neglected for after periods Problems: inadequate and inefficient planning and application phase makes the project non-traceable for the later periods. There was a lack of records in terms of what was applied when was applied, Archive studies are obligated.	1) KUDEB initiatives that are established within the local authorities should become more independent. Independent inspection is needed because the local authorities are the main stakeholders in terms of application and supervision. 2) Creating a standard and accessible archive for further studies is needed.

Table 4.8:Suggestions for Hamamönü(CRI Well-being)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
CRI	Well Being	Facts And Problems	
		Fact: Lack of diversity in terms of business sectors Lack of continuity in businesses Lack of business development? Problems: In the case of Hamamönü, the residential are turned into commerce, especially the service sector. And which makes economic sustainability vulnerable. Business continuity was not provided effectively, the unfair competition was observed when the most famous cafes and restaurants were opened. (It has been observed that after the rehabilitation works carried out, there has been an increase of 400% in rental rates This has caused to leave on the business owners of the pre-project period)	1) Hamamönü is a historic residential neighborhood, which had its own economic circulation before the rehabilitation application. Which were more diversified compared to the status? Both to be able to protect the residential area, there should be precautions to take; there should be limitations against transformation from residential to commerce, And for the business continuity there should be also limitations on the number of commercial facilities in terms of diversity. 2) The priority should be given to the local people instead of big companies, and competitive equality should be ensured 3) At the planning phase, the rental buildings should be selected, and according to this selection rents should be arranged. For the case of Hamamönü, the priority should be given to the existing user with affordable rent prices. 4) There should be economic planning to analyze supply and demand requirements of the related site.

Table 4.9:Suggestions for Hamamönü(CRI Economy and society)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
CRI	Economy and society	Facts And Problems	
		Fact: Lack of linkage between business to the city Lack of protection mechanism against shocks and disasters Lack of job security for employees Problem : The pandemic conditions and limitations have an unprecedented effect not only in Turkey but also worldwide Problems of curfews and restrictions to the social life Bankrupts and closures of the local businesses Increased the unemployment status Half-capacity working conditions, only serving the surrounding environment in terms of commercial activities.	It is possible to say these problems stem from the intensity of the service sector rather than any others. Because Hamamönü is a touristic area, the developed service sector is an inevitable fact. But only depending on the service sector may cause the collapse of all economic income sources at once, just as happened during the pandemic duration. Instead of the tourism and services sector, 1) Creating a commercial corridor among other parts of the city is necessary. Other sectors, especially the ones based on production, will enhance the current situation. 2) Moreover, by combining production with tourism, as previously mentioned, Ankara was the most famous location with the production level of traditional sof fabric., Establishing a base for sof production and development of sof trade would create an alternative income source for the local people. The craftsmanship education is already given on different scales under the administration of Municipalities, including the sof production to this process, enhancing the sense of community-level among

Table 4.9:Suggestions for Hamamönü(CRI Economy and society) continues

			the local people as well. 3) The job security of the employee is one of the major responsibilities of the employer. Providing social security for the employers is not only necessary the ensure the high motivation of the employed person but also enhance the quality of the service.
		Additional notes:	As it is previously mentioned, sof is one of the most valuable cultural assets of Ankara. And it is also known that it is produced at homes used as ateliers. The weaving procedure was mainly produced by women in the 18th century. The alternative economic plan for Hamamönü, re-creating this production chain both for touristic attention and also providing income to the local women. It is also known that the sof fabric produced at the houses, allows people to continue the residential use. It is also known that the Municipality provides BELMEK courses to educate women in several subjects including tailoring, jewelry design, knitting, etc. The sof waving can be an alternative education program for women.

Table 4.10: Suggestions for Hamamönü (CRI Infrastructure and Environment)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
CRI	Infrastructure and environment	Facts And Problems	
		Facts : Lack of energy efficiency in terms of building scale Lack of infrastructure facilities and waste management Problem: Several problems that are based on excessive electricity use such as; heating problems in terms of building scale, expensive electricity bills, and waste of sources Clean(rain)water waste, that collects throughout savage channels, causes floods and natural disasters,	In terms of heating the main sources were electricity and coal use. The electricity use is expanded for the case of terraces and gardens of cafés and restaurants which cause overuse in terms of economic conditions of Turkey, the electricity was the most expensive way in terms of heating. And it is not in terms of energy efficiency as well 1) The natural gas pipes were established throughout the Talatpaşa Boulevard , but it is necessary to do construction works to expand all- around Hamamönü, to provide an alternative energy source in terms of heating 2) Moreover, it is possible to promote solar panels in backyards roofs, and courtyards, 3) And the use of thermal insulation materials for the interior will provide both energy efficiency and protect the newly renewed facades 4) For the financial problems, the suggested budget of the post-project will share the financial burden of the local municipality in terms of infrastructure and environment.

Table 4.10: Suggestions for Hamamönü (CRI Infrastructure and Environment) continues

			5) And to be able to promote the use of alternative resources, the current tax deduction for energy use for businesses can be rearranged for the sake of the ones who made changes to transfer to more sustainable energy systems in business 6) Finalizing the rainwater discharge for the area at the end of the drainage channels of streets makes it possible to embed several water collection mechanisms without any heavy construction works (drain lines, rain gardens, etc.). And it is also possible to use the collected water within the system (using to meet parks water needs etc.)

Table 4.11: Suggestions for Hamamönü(RELi 2.0, Materials and Artifacts)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
RELi 2.0	Materials and Artifacts	Facts And Problems	
		Facts: High degree of serviceability Week joints and reinforcement in building scale Lack of authenticity Problems: Change of function and the exaggerated service capacity made the regular user (residents) leave the area Imitative buildings change the perception of space, from residential to touristic	The serviceability of the built environment changes the user density, and use of energy, and the excessive user load accelerates the destruction of the structure when proper care is not provided; either proper care or reduction of user load is necessary. The overall infrastructure's water supply, electricity supply, and capacity must be reviewed against the over-capacity. 1) The serviceability level of Hamamönü should be limited to the core zone (Dutlu Street, Fırın Street, İnanlı Street and Tanış Street will be used for residential, the commerce should be limited with Hamamönü Street, Mehmet Akif Ersoy Street and Sarıkadı Street, for the case of commerce, house under trade (mixed use) should be supported. 2) Considering the economic status of the landowners and dwellers, it is necessary to support them in terms of repair works. The original material and proper craftsmanship and supervision should be provided by either the local governments or the municipality. Moreover, qualified craftsmanship is required,

			not only for Hamamönü but also for other projects, either local or central administrations should prepare qualified teams to work on conservation projects. Coordination should be provided between the landowners and the conservation experts. Rehabilitation and conservation approaches should be holistic; construction reinforcements are also vital to prevent decay. 3) For the case of the reconstruction initiations, the residential buildings of Hamamönü were used as a representative example, the facades of the new building imitated the traditional housing style, but several elements like balconies and over the use of windows were applied to the new buildings. Even in some cases, there were walls with fake windows observed in the field. In addition, changes in typology, but also changes in plan scales were observed. These applications are damaging the understanding of traditional housing. Because the living spaces (existential space) originated from the traditions and reflect a perception of people who lives within them, that kind of fake application is not only harmful to the tangible cultural heritage but also to intangible cultural heritages as well.

Table 4.12: Suggestions for Hamamönü (RELi 2.0, Community Cohesion, Social+ Economic Vitality)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
RELi 2.0	Community Cohesion, Social+ Economic Vitality	Facts And Problems	
		Fact: Surrounding density and diverse uses, High Access quality to transit, Lack of Bicycle facilities, Reduces parking footprint, Walkable streets and surrounded connectivity case, internal connectivity case and enhanced environment (expanded streets, enhanced street furniture, and secure environment) Problem: High rate of motorized transit, make the non-motorized transit facilities redundant Parking prices are too high, and private parking spaces are not available Pedestrianized and walkable environment damaging the privacy level of the dwellers High internal connectivity affects the future of the	Surrounding density and diverse uses are an inclusive attempt to reduce the negative impact of zoning and enhance the dwellers' quality of life and contribute to the evaluation and development of walkable and accessible areas. 1) Enhancing non-motorized transit makes Hamamönü more eco-friendly. Even though the transportation facilities are highly effective and available, to reduce the carbon footprint we need to apply carbon-free transportation alternatives to the residential sites. It is necessary to create bicycle parks, and safe slopes and junctions of the roads should also be applied. 2) Use of parking lots should become common; even though Hacettepe has its own parking area this space should be shared. the workers and households are given priority for parking facilities. 3) According to the RELi 2.0 the walkable environment and internal connectivity of the project is highly strong. For the new project, this

		built environment negatively	initiation makes the project more resilient. However for the case of historic sites, which already have internal dynamics, may have negative feedback. For the case of Hamamönü, it caused the loss of privacy of the residents. To prevent it; the GIS systems enable us to observe changes before the application of projects, making it predictable for the designers to measure the change in pedestrian patterns, connectivity, etc. The level of connectivity and interaction changes enable designers to predict futures of the social life that has an immense effect on the built environment

Table 4.13:Suggestions for Hamamönü(RELi 2.0, Hazard preparedness, short-term hazard preparedness, mitigation + adaptation)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
RELi 2.0	Hazard preparedness, short-term hazard preparedness, mitigation + adaptation	Facts And Problems	
		Fact: Lack of hazard preparedness Lack of community awareness Problems: The physical threats against Hamamönü are the risk of fire and near-surface water sources and floods The soil typology contains a high degree of solvents	In terms of hazard preparedness, the condition of Turkey is not any different from the case of Hamamönü, 1) The hazard preparedness plans should be prepared for historic sites for those necessities are; appropriate evacuation conditions for floods and fire 2) Strengthening the foundations is essential, for building scale taking protective measures against corrosion should be prepared. 3) The awareness of the potential hazards (earthquake, fire, etc.) should be increased. 4) The accessibility of fundamental needs (shelter for three days, energy backup sources, clean water supply, should be provided. Insulations against fire and water should be concerned during the application phase

Table 4.14:Suggestions for Hamamönü (RELi 2.0, Panoramic Approach)

GUIDANCE	Evaluation Criteria	INFORMATIONS	SUGGESTION TO ENHANCE RESILIENCE STATUS
RELi 2.0	Panoramic Approaches	Facts And Problems	
		Fact: Lack of Participatory project management Incomplete planning process from budget to application phase especially for the post-project phase Ownership status of the Hacettepe Problem: The participation attempts of the residents become poor, Laws and legislation determines the project owners as the final decision maker in terms of functional and physical transformation of the buildings The ownership status of the Hacettepe is debatable because the expansionist approach	1) In this context, one of the main emphases of the study focuses on the determination of more precise job descriptions. And the share of responsibility with more specific tools of inter-institutional coordination is vital. Effective organizational structure has a great role in urban conservation and revitalization studies. It should be emphasized that a clear organizational chart must be established for such a project. And this structure must be integrated with a robust financing model. The participatory decision-making processes should be encouraged, especially for the low-educated communities. The collective memory of the Hamamönü must be protected 2) The project management level should be accessible to those who live at the project site to create a reliable environment. Each level must be transparent in terms of administrative policies. Legislations and decision-making processes should be straightforward.

			3) The limits and boundaries of the participants should be described clearly, beyond personal and short-term. benefits

5.2 Suggestions for Urban context

One of the most important aspects of conservation and rehabilitation studies is preserving the cultural identity at community scale. According to the records, in the case of Hamamönü within Ankara, the neighborhood is one of the earliest textures of the city. Throughout history, the traditional, social, and religious importance of Hamamönü remained. Even though several development plans were affected on different scales, Hamamönü and the surrounding region kept their identity at a certain level. The residential fabric of Hamamönü is a significant example of demonstrating construction techniques and showing social life within them, which constructs the social identity and collective memory.

It is undeniable that public interest has increased unprecedentedly after the rehabilitation studies for Hamamönü and the surrounding region. Until then, the area was known as dangerous territory. However, creating new centers as touristic zones in the old city and its immediate surroundings increase the level of built space, commercial facilities, population, and traffic density Unplanned and uncontrolled function changes in historic sites can be considered as doping injections that boost the economy, population, and attention. Nevertheless, globalized consumerist perspectives and initiatives pay attention, as long as that certain area is beneficial. In cases where the profit margin drops, these artificially created attractive areas turn into waste areas to be left behind. Finally, the urban system will collapse.

To be able to preserve complex systems like Hamamönü, each layer of the system that affects the other should be considered individually. For example, the enhanced economy enables people to make more money, which promotes their quality of life. Furthermore, because the general income will be increased, the willingness to spend money on living environment conditions increases. On the other hand, a solid example of the fact of profit-based initiatives is the covid 19 pandemic. During the pandemic period, because the attractive orientation was dispersed to the Hmamönü, big investors and commonly known brands were immediately withdrawn from the area. Therefore, in the region where the economic life becomes standstill, the most critical measure that can be taken against similar cases is to create trade-based. Thus, the conditions of the physical environment they live in will be improved, and old age, one of the region's most important problems, will be eliminated. Protection of the original user is related

to the protection of original use, which is the essential element of the collective memory and cultural identity.

5.3 Suggestion for Future Projects

The conservation and rehabilitation initiatives of Hamamönü have been completed. However, after a decade, several problems and potentials arose related to the conservation project. For this thesis study, the problems, and potentials of the Hamamönü case have been evaluated according to resilience. Resilience is a widespread, relatively new, and current topic in terms of conservation studies. However, in the case of Turkey, the resilience studies are even newer, and resilience initiatives for conservation studies are narrow.

One of the aims of this study is to create a conceptual framework for future studies to understand and analyze resilience levels and how to enhance them in terms of rehabilitation and conservation initiatives.

For the future project, the suggestions related to this study will be given as

Suggestions in terms of Economy

- The financial model for the conservation and rehabilitation projects must be sustainable (in a way that the budget will meet the possible complementary applications in a period of at least 25 years after the project)
- The basis of the conservation initiatives, economic development plans should include a large sustainable scale diverse basis
- The economic models for the historic sites should be developed extencively, the single sectorization makes the project more vulnerable
- To provide a diverse livelihood and high employment rate, priority should be given to the local people to be employed in new investments.
- The service capacity should be revised and encouraged if it is necessary.

Suggestions in terms of Community

- The conservation projects must be prepared as a holistic that covers the previous conditions application phase and post processes
- Participatory economic plans should be prepared (including women, elderly, and

vulnerable parts of the existing situations)

- Cultural activities and educational opportunities should be encouraged

Suggestions in terms of Management

- In the post-project, the field management and supervision initiatives will be carried out by independent institutions that are supervised by the local authorities
- Clear determination of distribution between institutions and stakeholders must be provided
- Informing the interlocutors of the project at each level and participants for the decision-making process should be provided within a reliable environment.
- It is necessary to balance public interest with the personal interests of residents
- The essential health, education, care, and similar needs of the residents should be met in the immediate surrounding.

Suggestions in terms of Application

- Proper assessments of the physical environment are one of the essential bases.
- The requirements of the physical environment should not be neglected from building scale to environmental design.
  Every application of the implementations should be documented
- Public spaces should be provided in accordance with the context.
- A walkable end secure environment should be provided
- Holistic and proper repairment applications should be carried out on a building scale from base to roof.
- The use of original material must be applied.
- The required qualified craftsmanship must be provided
- For further processing the connection between qualified teams and the property owners should be established.
- The availability of the original materials should be provided.
- Original street textures should be protected.
- In terms of service facilities (ınfrustructure) the equal division among the dwellers should be provided
- If it is necessary, the accessibility and transportation facilities to the project site should

be revised

- The possible outcomes of the proposal plans should be analyzed.
- Against the increasing user load, the physical environment should be developed (water, electricity, internet, sanitation, etc.)
- Eco-friendly applications in terms of energy, material use, and water management should be encouraged (clean water discharge, insulations in building base, waste separation and recycling, etc.)

The suggestions for future projects is given by the Hamamönü case, and it should be taken into account that Hamamönü is a residential neighborhood that was established in the Ottoman period, with the sense of traditional Turkish architecture.

Being a very centralized location of Ankara also affects almost all urbanization initiatives carried out by the new Turkish republicans.

Although the case base study of evaluating the resilience status of Hamamönü, several similar studies are carried out. The renovation works of old residential neighborhoods in the urban fabric by transforming the tourist zone is quite common.

And developing solutions that originate similar problems for collective cases will be beneficial in terms of conservation studies.

And finally, the suggestions for future projects that originated from the Hamamönü case are inclusive and provide a framework for resilience against possible circumstances.

Finally, besides the resilience implementations previously mentioned, different evaluation criteria are also available to determine resilience status. For the case of Hamamönü, among the resilience studies, the most current and comprehensive guides were chosen (CRI and RELi). Among the evaluation criteria of CRI and RELi 2.0 there is a wide range of content that each project can evaluate their status at a certain level, which provides a more resilient environment in terms of conservation studies

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