A FRAMEWORK FOR IDENTIFYING POST-INTERVENTION VALUE SHIFT IN HERITAGE RESIDENTIAL BUILDINGS: THE CASE OF ANTALYA, KALEIÇI IN TURKEY

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A FRAMEWORK FOR IDENTIFYING POST-INTERVENTION VALUE SHIFT IN HERITAGE RESIDENTIAL BUILDINGS: THE CASE OF ANTALYA, KALEIÇI IN TURKEY

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ABSTRACT

A FRAMEWORK FOR IDENTIFYING POST-INTERVENTION VALUE SHIFT IN HERITAGE RESIDENTIAL BUILDINGS: THE CASE OF ANTALYA, KALEIÇI IN TURKEY

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Conservation of heritage residential buildings is ultimately geared towards the sustainability (cultural, physical, social, and economic) of the built heritage and its entwined tangible and intangible values; such goals are nonetheless influenced and oriented by the building itself and the stakeholders' approach, each with their own agendas and wants towards the project in hand. These approaches are based on an uneven hierarchy of outcome preferences, such as highlighting commercial gain, aesthetic restoration, or tourism as an end goal enforced by a series of interventions, resulting in the masking or change of some values in serve of enriching others.

This study of interventions, values, and sustainability on conserved heritage residential building within a specific touristically oriented environment assists in developing a tool, with a defined framework and methodology, to assess the physical and social changes resulting from intervention magnitudes and the subsequent post intervention value shift.

Based on the literature review the values and magnitudes of intervention related to heritage residential buildings are studied within a theoretical framework. Then via a qualitative descriptive site survey, in Antalya, Kaleiçi, heritage residential buildings reused as hotels with different imposed interventions are observed, analyzed, and the connection between interventions and value change is established. Determining a path that incentivizes a value based proactive approach towards sustainable conservation of heritage residential buildings.

Keywords: Interventions, Sustainability, Values, Heritage Residential Buildings, Values Shift.

ÖZ

TARİHİ KONUT YAPILARINDA MÜDAHALE SONRASI DEĞER DEĞİŞİMLERİNİ BELİRLEMEYE YÖNELİK BİR ÇERÇEVE: ANTALYA, KALEİÇİ ÖRNEĞİ

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Eylül 2024, 259 sayfa

Tarihi konut yapılarını koruma ve restorasyon çalışmaları, kültürel mirasın ve sahip olduğu somut ve somut olmayan değerlerin (kültürel, fiziksel, sosyal ve ekonomik) sürdürülebilirliğini hedefler. Ancak bu sürdürülebilirlik hedefleri, sadece yapının kendisi tarafından değil, aynı zamanda karar verme süreçlerinde yer alan paydaşların projeye yaklaşımları tarafından da şekillendirilmekte ve yönlendirilmektedir. Farklı paydaşlar, yapılı mirasın korunması ve restorasyonuna dair projelere kendi öncelikleri ve beklentileri doğrultusunda yaklaşmakta; bu yaklaşımlar ticari kazanç elde etme, yapıların estetik değerlerini ön plana çıkarma ya da turizmi nihai amaç olarak benimseme gibi farklı hedeflere dayanarak geleneksel yapılar üzerinde olumsuz bir etki yaratabilmektedir. Bu tercihler, çeşitli müdahalelerle yapıların sahip olduğu kimi değerlerin değişmesine veya kaybolmasına, diğerlerinin ise ön plana çıkarılmasına neden olabilir.

Turizm odaklı dönüşümün gerçekleştiği bir çevrede, tarihi konut yapılarına müdahalelerin, bu yapıların sahip olduğu değerlere ve sürdürülebilirliğe olan etkisinin anlaşılmasına yönelik bu çalışma, farklı müdahale derecelerinin tarihi konutlarda yarattığı değer değişimlerini ve bu değişimlerin fiziksel ve toplumsal sonuçlarını değerlendirmek için bir çerçeve ve yöntemsel araç geliştirilmesine katkı sağlamıştır.

Çalışma kapsamında, ilk olarak, literatür incelemesi doğrultusunda, tarihi konutlara yapılan müdahalelerin dereceleri ve bu yapıların kültürel miras değerleri konuları ele alınmıştır. Ardından, Antalya Kaleiçi'nde gerçekleştirilen nitel ve betimleyici saha çalışması ile otel olarak kullanılan tarihi konut yapılarına uygulanan çeşitli müdahaleleri incelenmiş; yapılan müdahaleler ile bu konutlardaki değer değişimleri arasındaki ilişki ortaya konmuştur. Çalışmanın sonunda, tarihi konutların sürdürülebilir korunmasını sağlamak için farklı müdahale derecelerinin yapıların değerlerine etkisini proaktif bir şekilde ortaya çıkaran yöntemsel bir çerçeve ve araç geliştirilmiştir.

Anahtar Kelimeler: Müdahaleler, Sürdürülebilirlik, Değerler, Tarihi konut yapıları, Değer değişimleri.

To my Father, Mother, and those I consider family,
who push me to be better

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Finally, I express my love to my family. I thank my father for his pursuit to see me reach my potential, my mother who knows what is on my mind without the need for words, and my three sisters for being my joy in life. A special thanks to my friend Mohamad Ali Zahra for being the constant support throughout the years. And to all those I consider family, thank you for helping shape who I am today.

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CHAPTER 1

INTRODUCTION

Conservation of cultural heritage is a multifaceted practice that encompasses theories, approaches, action plans, an array of intertwined disciplines, and goals it aims to achieve. Architectural design and conservation go hand in hand when tackling projects that aim to reuse cultural heritage buildings. These architectural projects hence come with a predictable array of **stakeholders**, most notably the **previous users** of the heritage buildings, the **architects** at the helm, the **investors** and **employers**, and the targeted **future users** of the finished projects. (Alpan, 2013) Each of these stakeholders perceive the heritage building from their own lens with their own agendas and outlook on the project. In the case of **heritage residential buildings**, it is observed that a challenge is posed pertaining to the conservation, restoration, and reuse of these buildings due to the limitations they instill upon the stakeholders. This resulted in either the abandonment, demolishment, or reuse of these houses in different manners.

In our contemporary times, conservation of built cultural heritage in its purest form encompasses measures and interventions taken to achieve cultural heritage **sustainability** (cultural, physical, social, and economic), characterized by the maintenance and enhancement of its **physical setting**, **social environment**, and **economic context**, while reinforcing the continuous relay of its significant heritage messages and **values**. (UNESCO, 2009; ICCROM, 1998; UNESCO, 1988) Another aspect is the inclusivity in design and concepts especially concerning strengthening the connection between the users and the heritage building, its history, and the ideals it portrays, which in turn brings the people closer together. Resilience likewise is an important pillar in conducting a conservation action plan which ensures the survival of the built heritage and its values for the longest achievable time. (European Commission, 2019)

On the other hand, some approaches to cultural heritage conservation are widely based on a biased election of outcomes set by the stakeholders, such as leaning towards commercial gain or tourism as an end goal implemented through types of **interventions**.

A major allocation of reused heritage residential buildings can be labeled as inappropriate interventions either due to over intervention, improper interventions, or assigning incompatible functions which results in degrading and losing physical and social values. Different types of intervention, when utilized to serve a specific outcome, result in obscuring or changing some values in serve of supplementing others. Hence in these scenarios, cultural sustainability is not achieved to its potential due to the dismissal of the importance of values as a cornerstone in keeping the identity and uniqueness of a heritage building intact and achieving sustainability, inclusivity, and resilience. As such it can be observed that a **post intervention value shift** occurs when enacting an action on a heritage building, where a set of values are changed due to an array of types of intervention, manifested as **physical and function changes**, enacted on a heritage building. These values, both pre and post intervention, can be determined by analyzing the physical setting and social environment of a heritage residential building then compared to deduce the post intervention value shift. This study of interventions, sustainability, and values on completed conservation projects within a specific environment assists in **developing a tool**, with a defined framework and methodology, to assess the changes to a particular type of heritage building and the subsequent post intervention value shift. Categorizing intervention magnitudes according to their impact on values and initiating a value-based proactive measure to form guided and regulated interventions within the urban fabric

Such observations and analysis are best suited in places that underwent **different types of intervention** to their **heritage residential buildings** in a **historical town** setting thus **altering the physical setting and social environment** of the buildings and site; for that the heritage site of **Antalya, Kaleiçi** was chosen.

1.1. Problem Identification

Conservation projects like other architectural endeavors are influenced by the stakeholders, whether it's the architects through their imagination, preferences, concepts, and design, the investors with their vison and economic expectations from the project, or the users, both previous and new, and their envisaged interaction with the building (Alpan, 2013; Gotham, 2005; Hammel, 2009; Cocola-Gant, 2015; and Ma & Su, 2023). From an architectural standpoint, an imbalance of interventions is observed pertaining to the function and type of the heritage building. Heritage buildings with a flexible plan organization see more elaborate and thoughtful interventions than residential buildings especially when it comes to design implementation, conceptual framework, and function. These buildings range from factories, hotels, schools, public buildings, mills, breweries, and war structures remnants. They feature a large open universal space and an array of rooms with different properties that can be designed and integrated into a project in flexible manners. This is in contrast with heritage residential buildings with their limited spaces and rigidity which diminishes their use value options and renders the intervention process arduous and restricting, especially when coupled with the harsh country specific conservation principles that must be uphold for a conservation project to be greenlit.

From an investor and owner perspective, certain agendas and ownerships are prioritizing explicit design approaches and values for the conservation of heritage residential buildings, most seen in attempts that transform historical areas into touristic attractions, thus putting economic gain and beautification at the forefront. This is an ongoing dilemma that offers new perspectives and reoccurring problems simultaneously, hindering cultural sustainability and inviting value assessment studies. Since tourism-based development and economic agendas seem an inescapable reality, a value-based approach to conservation is a step forward in balancing the needs of the stakeholders with the core goals of conservation of cultural heritage. (Alpan, 2013)

From a user point of view, the shift towards a contemporary lifestyle resulted in a change of what people need and expect in their housing units. These needs couldn't be met by the existing heritage residential buildings due to design, spatial, material, infrastructure, and structural constraints and thus these houses were substituted with contemporary ones. As such, the possibility of being seen as a design challenge with more downsides than positives, heritage residential buildings pose a large sum of the questionable interventions pool within the sea of cultural heritage conservation. The limitations set by this typology of buildings render their fate bound by either abandonment, demolishment, or reused through other means. The abandoned houses are left in disrepair and lack even basic conservation and preservation efforts, as time passes these residential buildings, and their physical and social values are being lost. Other traditional houses are being demolished to make way for new development projects resulting in gaps in the cultural identity, authenticity, and collective memory of an area. Finally, a large proportion of the reused heritage residential buildings can be labeled as inappropriate or lacking interventions due to over intervening, improper interventions, or assigning incompatible functions which results in degrading and losing physical and social values most notably for economic gain and aesthetic preferences.

Furthermore, the international charters and guidelines that aim to direct and tame the approach of the stakeholders to preserve the essence of the built heritage are seen as vague and possibly interpreted using different design languages that end up affecting the values negatively. Either by completely neglecting and removing these values and the physical aspects they are represented within, or by prioritizing certain values or design aspects over others and thus diminishing their presence and hence the integrity, authenticity, and the sustainability of the building overall. Thus, in these examples which compile the bulk of intervention cases or the lack there of, a negative dip in value occurs affecting the physical environment (building and urban scale), the social sustainability, and the cultural sustainability. Heritage residential buildings are one of the main building blocks of cultural urban fabrics as seen in Antalya, Kaleiçi.

The observation of this area that underwent different types of intervention to their heritage residential buildings under the goal of tourism, altering the physical setting and social environment of the buildings and site, called attention to the need for a new conservation value-based approach for heritage residential buildings; compared to other building typologies that are being studied, theorized on, and experimented with.

1.1.1. Research Gap

- Antalya, Kaleiçi urban development:

Concerning the heritage site under study, not enough modern research has been done within the architectural scope. Antalya, Kaleiçi is a historical Ottoman previously walled city rich with its traditional Ottoman residential heritage buildings. Much of its area went through conservation master plans which led it down the path of touristic driven development. Theses such as Başok (2016) Conservation History of Cultural Heritage in Kaleiçi District in Antalya (From the 20th Century to Present Day) and Uluç (2014) A Framework for Sustainable Urban Mobility in Historic Urban Landscape: A Proposal for Antalya Kaleiçi, tackled the area from an urban planning perspective, shedding light on the history, the conservation activity, and the development plan of the area. They offer a great understanding of the walled city, its elements, and the changes that occurred to it throughout time on an urban scale.

Thus, it is deemed that an important architectural heritage site such as Kaleiçi need some deeper analysis to its buildings; analyzing the changes delt to it on a buildings scale, especially its heritage residential buildings that make up much of its area and have gone through types of interventions heralded by the touristic approach to development. One of the main focuses of the study is observing, documenting, and analyzing the post intervention value shift in heritage residential buildings.

- Intervention risks to heritage residential buildings:

The study cases have been explicitly chosen to be heritage residential buildings that have undergone different types of intervention due to the difficult task of adapting these buildings into the contemporary lifestyle. This problem was highlighted in "Upgrading the Old: The Adaptation of Traditional Residential Buildings to the Contemporary Life" by Avcı (2012).

Focusing on the mentioned problems that heritage residential buildings are facing then offering proposals to properly intervene with this typology and properly adapt them to the contemporary lifestyle. The aspect of systematically organizing and analyzing the effect of different interventions on the building through observing their value shift can be further expanded upon in this thesis which is a wide gap that is in dire need of exploring.

Research that focuses on residential buildings, like "Assessment of the Effects of Adaptive Reuse Interventions on Three Apartment Buildings in Beyoğlu, İstiklal Street" by Türer (2020), highlights the practice of adaptive reuse in heritage residential buildings and the effects it has on them and some of their values. Thus, with previous studies seemingly constricted to function change proposals, a value assessment and post intervention value shift analysis is needed to further explore interventions to heritage residential buildings.

- Value assessment on nonresidential heritage buildings:

Furthermore, more research is needed regarding value assessments in heritage residential buildings which is evident through the sources; industrial heritage is heavily discussed in multiple theses like "Value Assessment for Defining the Conservation Principles for Kayseri Sümerbank Bez Fabrikasi", "Value Assessment for Industrial Heritage on Zonguldak", and "Value Assessment for Cotton-Based Industrial Heritage in Adana" by Eldek (2007), Kilinç (2009), and Arcı (2019) respectively.

This enforces the problem that interventions to heritage residential buildings may be mainly driven not by a value-based approach but by the ideas and needs of the stakeholders for touristic development, and that industrial heritage and buildings featuring an open plan with design flexibility are more studied from a values perspective to achieve better conservation projects. Nevertheless, the way the values were examined, explained, and analyzed in these articles had an influence on the value analysis of heritage residential buildings in this study.

- Interventions:

In Determining Minimum Intervention in the Preservation of Heritage Buildings by Zhang and Dong (2021), degrees of interventions are analyzed thoroughly to establish a level-based model of minimum interventions for different practices and desired conservation practices, in other words "proceeding with minimum intervention for maximum conservation" (Zhang & Dong, 2021). Likewise, "Time Honored: A Global View of Architectural Conservation: Parameters, Theory, and Evolution of an Ethos" by Stubbs (2009) laid a very solid foundation in understanding the levels of interventions upon heritage buildings.

A vast array of intervention levels was stated, explained, and ranked to find the minimum impact interventions. Consequently, based on that research, the effect of these intervention on sustainability pillars and the related values is discussed in this study; interventions being perceived as magnitudes instead of degrees with varying ranges of effects on the values and changes on a heritage building.

As such, the levels of intervention explained in the studies by Zhang & Dong and Stubbs strongly influenced this thesis study when establishing types of intervention, concluding the change they impress upon a heritage residential building, and establishing the post intervention value shift system.

- Sustainability:

The relation between interventions and heritage building sustainability is a topic that has been discussed and researched as present in the paper “Sustainability and Heritage Buildings” by Okba and Embaby (2013). Through the analysis and case study the paper showcases the effect of different degrees of intervention on achieving a sustainable conservation which subsequently translates to respecting heritage values. Some values defined by the charters have been chosen as main aspects affecting the sustainability of heritage buildings, on the other hand degrees of intervention have been explained. Based on the definition of a conservation act facilitated by the International Council on Monuments and Sites (ICOMOS) as “the processes of caring for a place so as to safeguard its heritage values” and as such the higher the intervention to a building the more its values are corrupted, rendering the building less sustainable. The paper then converges into the realm of green, water, and energy sustainability within the scope of heritage buildings interventions that respect the heritage values and thus cultural sustainability of the building. Therefore, a relationship between interventions and green sustainability is explained, leaving an opening towards further observing interventions as changes done to the physical setting and social environment that is directly responsible for alteration to the cultural sustainability and heritage values.

- Interventions and value change:

The relationship between change and values in the preservation of cultural heritage buildings is discussed in the article “Representation and Intervention: The Symbiotic Relationship of Conservation and Value” by Taylor and Cassae (2008). An emphasis was placed on the looping causality of representation and intervention, in which a manner that a building is represented: its values, agents that change heritage and values, and damage is directly related to how a conservation architect intervenes and the methods chosen for the intervention.

Then because of the interventions a new perception of the values is established based on what the intervention added, removed, or preserved across different periods of time; this changes the perception of the building for later generations which results in different interventions later down the line. For this to be achieved, stages of this cycle are explained with expected observations and examples of each, then interventions and their possible repercussions to values were illustrated.

The representation of the perception of values through observed aspects discussed in the article by Taylor and Cassae offered a base for observation and borders to focus on during this study. Thus, the effect of interventions on each value in heritage residential buildings is explored and their relationship to the sustainability pillars along with the manner that values themselves shifted from pre to post intervention is deduced.

The effect of interventions on values is a question that arose in other literature recently, and whether it is necessary to reevaluate the newly established values (dubbed as post intervention values in this thesis). In the article written by Folić, Luxor, and Pasternak (2019) On Changing the Value of Built Heritage After Major Interventions, major interventions such as mass additions to heritage buildings of different uses and functions have been discussed. An emphasis on contemporary additions was made because of the connection it creates between heritage and the current modern population, bridging the gap between the heritage and contemporary and thus creating new values that recent generations can embrace.

Major interventions create the most changes to values as established by another research such as Taylor and Cassae (2008) and later by Zhang and Dong (2021). The article dwells on the problems that built heritage must deal with after major contemporary interventions where “It seems that there are still no international agreements and decisions on how to treat cultural monuments that have undergone major changes, and others, most often, without their internal structure, and in some cases with an added or reworked exterior.” (Folić, Luxor, & Pasternak, 2019, p56).

Hence a call for a system that analyzes post intervention value shifts has been made to better understand the built heritage and the effect of interventions on them, which can later help in developing a value-based conservation approach; along with a clearer set of international charters and guidelines that advocate and structure such approaches.

To understand the extent of the changes, the article provides examinations and descriptions of multiple study cases with imposed additions. This leaves a gap and need for further exploration of post intervention value shift and a systematic manner in relating shifts in values to specific types of interventions to better understand the impact of magnitudes of intervention on the perception of a heritage building.

Scanning through theses and dissertations that discuss a similar topic or a complementary mind frame and base, it has been found that there were attempts to discuss the concept of post intervention value shifts that lacked the exact use of the term or the interconnected variables that influence it. In the example of “Effect of Change on the Values of Two Historic Mosques in Manisa, Turkey” by Koşun and Turan (2020) the study was made on two mosques. The types of intervention were mentioned with a descriptive assessment of the changes and the overall shift in values. Thus, with the concept of change and values, a system of assessing post intervention value shifts is still needed with a clear traceable causal connection between intervention and particular values.

In the case of the thesis dubbed “Assessment of Changes in Values of Cultural Heritage Buildings due to Adaptive Reuse Works in Walled City of Nicosia”, Kanlı (2019) the idea that change has a negative impact on values is discussed and thus like the methodology presented in this study, a written description of change has been done to multiple buildings. On the other hand, a different structure, purpose, and conclusion are demonstrated in the methodology of this thesis. This study puts an emphasis on the values that were altered because of aspects that changed in heritage residential buildings due to interventions to have a comparison between pre and post intervention values.

The mentioned thesis by Kanlı (2019) focused on physical changes and the role of stakeholders as aspects that affect values. As such the study had a similar problem in mind in need to be investigated but left a gap in establishing a similar definition of terms (to this study), their connections, and producing a tool to assess post intervention value shift and presented within a reproducible system.

One of the main topics and articles influencing the direction of this thesis is "A Tool for Identifying Post-Intervention Value Shifts in Urban Heritage Places: The Heritage Value Circle" by Özçakır, Bilgin Altınöz, and Mignosa (2022). The study laid the framework for understanding the definition of post intervention value shift and how interventions are related to sustainability and consequently the perception of change in values. So, by causality post intervention value shift is perceived, and the study proposed a system dubbed The Heritage Value Circle that can clearly reveal post intervention value shift through the observation of the interventions.

The study focuses on implementing the concept on urban heritage places, and whereas the main sustainability pillars (physical setting, social environment, and economic context) are directly perceived on a building scale, other aspects such as types of intervention and values differ when zoning in from an urban towards a building scale. Thus, this creates a research realm of exploring post intervention value shift on a building scale to continue answering the question of "How can post-intervention value shifts be identified to assess the impact of the intervention on the sustainability of heritage places?" (Özçakır, Bilgin Altınöz, & Mignosa, 2022, p22).

Finally, such an approach took place recently within the thesis dubbed "Assessing the Impact of Changes on Values During the Transformation of Traditional Houses into Hotels: The Case of Trakalı" by Yüksel (2024). The study discusses the concept of value change and describes the intervention types by which these values change and the fashion in which the values change. It constitutes a very similar premise with a different outlook on the conclusion. This thesis tackles this aspect and further elaborates on the intervention types, values, their connection, and concludes with an intervention magnitude system based on the intensity of the value shift.

Further sufficient research into this topic would lead towards consolidating a value-based approach to conserving mistreated heritage structures such as heritage residential buildings in a sustainable manner, bridging the gap between heritage and contemporary.

Topic Discussed	Type of Research	Source
Antalya, Kaleiçi urban development	Thesis	Başok, G., Ç. (2016) Conservation History of Cultural Heritage in Kaleiçi District in Antalya (From the 20th Century to Present Day)
	Thesis	Uluç, A. (2014) A Framework for Sustainable Urban Mobility in Historic Urban Landscape: A Proposal for Antalya Kaleiçi
Intervention risks to heritage residential buildings	Thesis	Avcı, D. (2012) Upgrading the Old: The Adaptation of Traditional Residential Buildings to the Contemporary Life
	Thesis	Türer, F. T. (2020) Assessment of the Effects of Adaptive Reuse Interventions on Three Apartment Buildings in Beyoğlu, İstiklal Street
Value assessment on non residential heritage buildings	Thesis	Arcı, E. A. (2019) Value Assessment for Cotton-Based Industrial Heritage in Adana
	Thesis	Eldek, H. (2007) Value Assessment for Defining the Conservation Principles for Kayseri Sümerbank Bez Fabrikasi
	Thesis	Kilinç, A. (2009) Value Assessment for Industrial Heritage on Zonguldak
Interventions	Research Paper	Zhang, Y., Dong, W. (2021) Determining Minimum Intervention in the Preservation of Heritage Buildings
	Book	Stubbs, J. H. (2009) Time Honored: A Global View of Architectural Conservation: Parameters, Theory, and Evolution of an Ethos
Sustainability	Research Paper	Okba, E. M., Embaby, M. E. (2013) Sustainability and Heritage Buildings
Interventions and value change	Research Paper	Taylor, J., Cassae, M. (2008) Representation and Intervention: The Symbiotic Relationship of Conservation and Value
	Research Paper	Folić, N. K., Luxor, N. K., Pasternak, H. (2019) On Changing the Value of Built Heritage After Major Interventions
	Research Paper	Koşun, S. B., Turan, M. H. (2020) Effect of Change on the Values of Two Historic Mosques in Manisa, Turkey
	Thesis	Kanlı, B. K. (2019) Assessment of Changes in Values of Cultural Heritage Buildings due to Adaptive Reuse Works in Walled City of Nicosia
	Research Paper	Özçakır, Ö., Bilgin Altınöz, A. G., Mignosa, A. (2022) A Tool for Identifying Post-Intervention Value Shifts in Urban Heritage Places: The Heritage Value Circle
	Thesis	Yüksel, P. A. (2024) Assessing the Impact of Changes on Values During the Transformation of Traditional Houses into Hotels: The Case of Trakalı

Table. 1.1. Main research gap sources and their topics discussed. Prepared by Author.

1.1.2. Problem Definition

The problems that this thesis aims to tackle start with the observation that heritage residential buildings are susceptible to ongoing problems whether they undergo conservation efforts, abandonment, or demolishment. Meanwhile where conservation projects are concerned, the different needs and goals set by the array of stakeholders (architects, investors, owners, and governments) favor some types of interventions on others. Subsequently the different types of intervention and the function change affect the physical setting and social environment which directly cause a shift in the values of the building. This shift in values manifests itself in the change in identity, integrity, authenticity, inclusivity, resilience, and most importantly the cultural sustainability of the heritage residential building.

These problems unfold clearly in historical areas such as Antalya, Kaleiçi, a Turkish historical town with an abundance of reused mediterranean Ottoman traditional residential buildings, that follow the needs and visions of the stakeholders while being based on the international and national conservation codes that can be vague without a clear set of procedures and implemented in manners that negatively impact the values of the building.

Additionally, there is a lack of research, offering a clear definition of terms and their connections, that reproduces a theoretical framework discussing the value assessment of heritage residential buildings and the need for a post intervention value shift analysis on a building scale to better focus conservation actions with value-based approaches. Further sufficient research into this topic would lead towards consolidating a value-based approach to conserving mistreated heritage buildings such as heritage dwellings in a sustainable manner, bridging the gap between heritage and contemporary.

1.2. Aim and Scope of the Study

1.2.1. Aim of the Thesis

The main aim of the thesis is to analyze post intervention value shift in heritage residential buildings that were reused as hotels within the touristic town of Antalya, Kaleiçi. Hence, monitoring the shift in values (physical and social) that resulted from function change and the different magnitudes of intervention to its physical setting. Thus, developing a tool with a framework and system that can be recreated in different formats to assess the change to the sustainability pillars, interconnected with cultural sustainability, and the subsequent post intervention value shift. The post intervention value shift system aims to detect and map the impact on the values whether it's a loss, increase, decrease or transformation etc. resulting from intervention types and their magnitudes, function change, and specific intentions and agendas behind them. Furthermore, the system aims to assess intervention types based on their impact on values and subsequently cultural sustainability, thus providing a tool that steers conservation efforts away from negatively affecting post intervention values and towards a value-based approach to conservation.

1.2.2. Research Questions

According to the problems, research gap, and aim, the research questions are:

1. How do different types of intervention affect values in heritage residential buildings in Antalya, Kaleiçi?

2. How are magnitudes of interventions categorized in relation to heritage building's sustainability and values?

3. What is a proper system to detect and assess post intervention value shifts in heritage residential buildings?

1.2.3. Parameters of the Study

The parameters under study in this thesis are first **intervention types** to heritage residential buildings in touristic historic towns both physical changes and function change (chosen as heritage residential buildings reused as hotels), that affect the sustainability pillars. **Sustainability**, specifically cultural sustainability of heritage residential buildings, is the second parameter in which the pillars are examined within the aspects of cultural heritage and heritage residential buildings. The third aspect is **values** in cultural heritage buildings, specifically in heritage residential buildings. The causality between these domains is expanded upon, hence the thesis explains the relationship between change done to the physical settings and social environment in heritage residential buildings by the means of interventions, and the subsequent post intervention value shift resulting from the process.

To expand on this theoretical framework, a site survey is taken into consideration to observe interventions, change, and value shifts in a living environment where all the mentioned parameters are found and can be properly documented. The case study area is chosen to be **Antalya, Kaleiçi**. It is a historic settlement with an array of heritage residential buildings from the Ottoman period that have undergone a mass restoration activity transforming it into a touristic attraction area.

This touristically fueled development activity resulted in a wide pool of examples that can be examined and analyzed, featuring different types of interventions with varying results. To better organize the research and bind the scope of the study some variables and fixed aspects are taken into consideration, guiding the buildings' study cases and the changes examined into a solid bases with results that can quantified, mapped, and recreated in other locations.

The buildings studied are built within a set time frame in the Kaleiçi district and fall under the same plan typology with similar building materials and construction techniques. The buildings examined are all residential buildings originally that have undergone physical and functional change to be used as hotels or other subset lodging accommodations.

The site survey is mainly a descriptive qualitative documentation of the interventions, manifested as change, to the physical aspects of the building. The effect of these changes on the physical settings and social environment is thoroughly documented and the pre and post intervention values are then deduced.

One main heritage residential buildings case study is examined and documented, acting as a main case studied thoroughly to deduce the buildings' components and physical elements, intervention types, and values. While three other buildings act as support data reinforcing case.

Background information on these residential buildings including post and pre-intervention drawings (documentation, restitution, and restoration) and pictures is in possession, along with descriptions and archives aiding with the value shift evaluation. Since all the necessary architectural drawings and previous descriptions are found, the main site survey focuses on documenting change.

The social aspects are obtained via site surveys aimed at understanding the quality of user interaction with the habitat, aiding in concluding the social values post and pre intervention in Antalya, Kaleiçi.

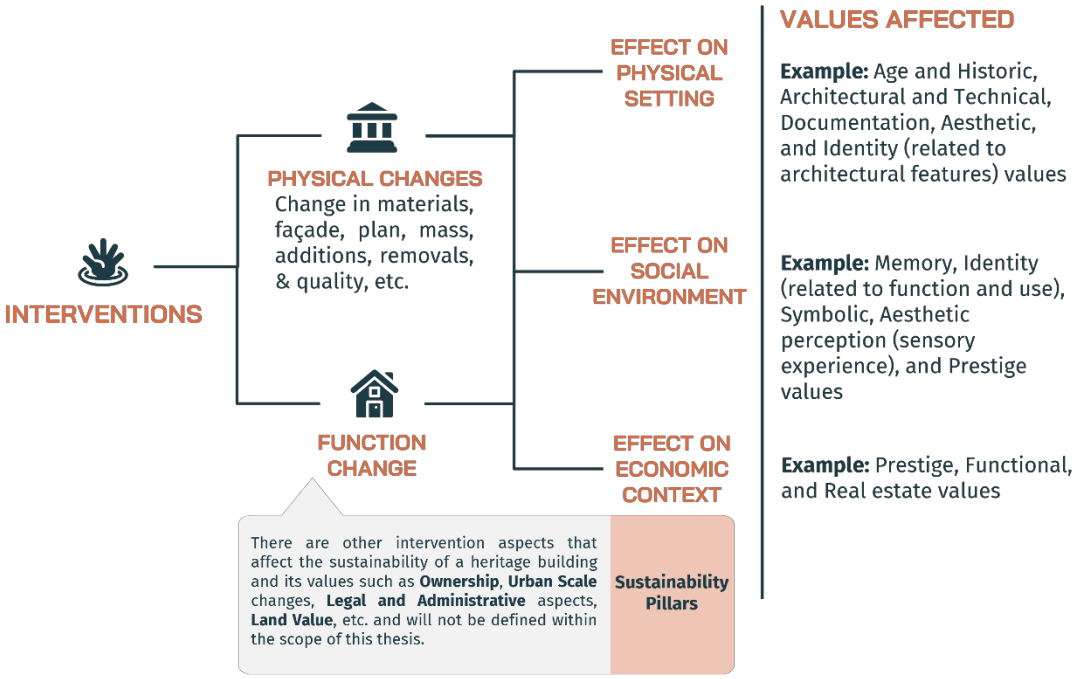


Figure 1.1. Thought matrix illustrating the causality between intervention, sustainability, values, and the parameters of the study. Prepared by Author based on Özçakır, Bilgin Altınöz, & Mignosa (2022)

1.3. Research Framework

1.3.1. Research Objectives

The research objectives constitute a systematic manner of thought aiming at guiding the methodology towards tackling and answering the research questions proposed via breaking them down into smaller tasks. These tasks are addressed throughout the thesis chapters until a conclusion is reached.

Literature Review	1. Understanding the concept of sustainability of cultural heritage and its pillars.
	2. Establishing values in heritage residential buildings.
	3. Establishing the connection between sustainability and values.
	4. Identifying the different types of interventions.
	5. Categorizing the different magnitudes of interventions to heritage residential buildings.
	6. Establishing the dynamic between intervention impact, sustainability, and values in heritage residential buildings.

Table. 1.2. Research Objectives of the Literature Review (Chapter 2). Prepared by Author.

Case Study	7. Unraveling the planning and conservation history of Antalya, Kaleiçi.
	8. Identifying the characteristics of Antalya heritage residential houses.
	9. Documenting, describing, and analyzing the changes that happened due to varying magnitudes of intervention upon the physical setting.
	10. Establishing and defining the intervention magnitudes.
Framework	11. Determining the pre intervention values of the building.
	12. Establishing and illustrating post intervention value shift
	13. Deducing the Post Intervention Value Shift System that illustrates the type of intervention and its effect on values via the change in physical setting and social environment.
Conclusion	
14. Final summarization of the thesis and adapting the system into a value-based proactive measure to approach the conservation of heritage residential buildings.	

Table. 1.3. Research Objectives of the Case Study (Chapter 3), Framework (Chapter 4), and Conclusion (Chapter 5). Prepared by Author.

1.3.2. Research Methodology

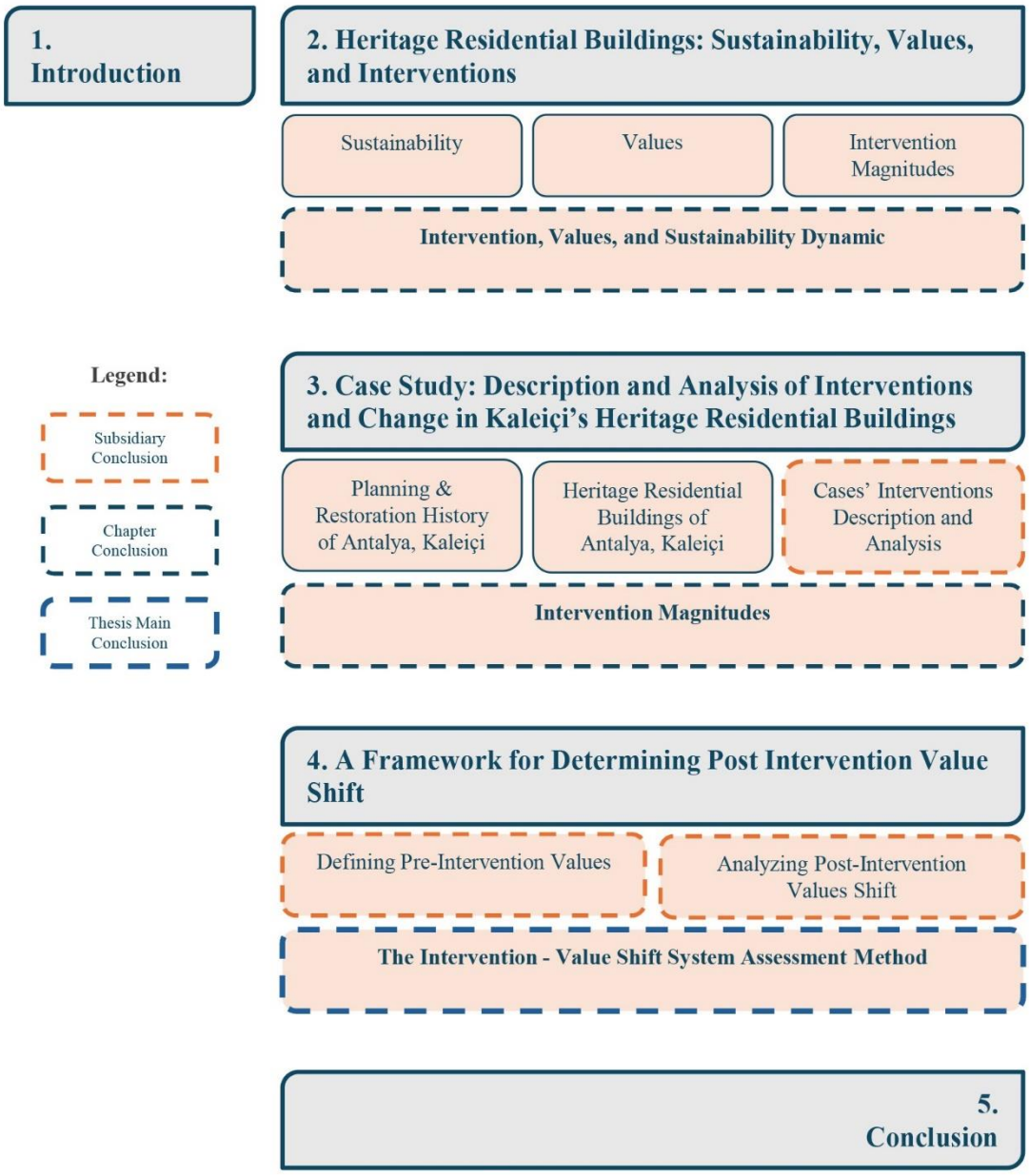


Figure 1.2. Thesis methodology schematic. Prepared by Author.

To evaluate post intervention value shift of heritage residential buildings and establish an Intervention – Value shift assessment system; first via the Literature review or Theoretical framework, a thorough theoretical delve into sustainability and values in the context of built residential heritage is done. These two topics are studied separately based on international charters, articles from journals and conferences, books, and previous theses. The history of discussions and their development revolving around these topics is discussed within the context of international charters.

Respectively, the connection between sustainability and conservation of cultural heritage is tackled focusing on the three sustainability pillars: physical setting, social environment, and economic context, and how cultural sustainability is entangled within them. Then values in cultural heritage are discussed with a focus on built heritage values and their integration within conservation frameworks.

Then, the concept of intervention and intervention degrees is discussed and studied, first within the framework of different approaches, theories, and ideologies. This is achieved through sources from international charters, journal articles and conferences, and books. An intermediate conclusion is made about the classification of intervention types based on types of change on the existing cultural heritage building. Thus, interventions are categorized based on their change to the physical plane, where function change is the second parameter discussed that directly affects the social dimension.

As a result, the literature review finalizes with an understanding of the relationship between Interventions, Sustainability, and Values affected and altered by change introduced to heritage residential buildings by the means of different types of interventions. Within this process of causality, actions resulting from intervention are translated to change seen in the sustainability pillars and hence a deviation in the values of the building. This relationship between the initial intervention and the resulted shift in the value, fully studied and systematically mapped within a framework and method, is the final deduction of the thesis.

To amass relevant research for the literature review, the following keywords were used: “heritage values”, “interventions/degrees of interventions”, “cultural heritage buildings sustainability”, “value change”, “additions and reuse of heritage buildings”, and “cultural sustainability and values”.

To study and accurately map the connection between intervention and values, heritage residential buildings that have undergone restoration are observed, examined, and analyzed within the historic district of Antalya, Kaleiçi. First the location, history, planning history, and conservation history of the area is researched by the means of previous theses, conservation master plans, records and archives, modern mappings, conservation policies and regulations, and any previous surveys done in the area.

Further building level information is gathered and categorized like the residential houses’ typologies, original state of the buildings, and common types of changes and intervention previously applied. Regarding the site survey, a qualitative descriptive assessment method is utilized to assess physical change done to the heritage residential buildings within the area based on the parameters set in the Literature review. Antalya, Kaleiçi is a historical settlement that had undergone recent changes and different degrees of interventions to its heritage residential buildings, caused by conservation master plans and implementations fueled by stakeholder decisions and touristic development.

These actions affected the physical setting and social environment of the area, especially impacting the large amount of heritage residential buildings within. Physical change influences all three sustainability pillars, but different types of interventions aren’t only observed in physical change.

Social changes are further studied via observing the new function and usability of the building and documenting its effect on the social environment. Aspects analyzed include the change in usage of the building, the spatial behavior, practices, and patterns of the users in relation to the building, and the symbolic and aesthetic perception towards the building pre and post intervention.

The understanding of the historic state, previous condition of the area, and the present one with all the documented physical and social changes it witnessed due to different types of interventions on a building scale, combined with the theoretical conclusions done in the literature review amalgamates in a conclusion chapter that clearly illustrates and compares the change between pre and post intervention values.

The theoretical framework and the documented factors done in the literature review and case study respectively, first helps in defining the term post intervention value shift within the realm of heritage residential buildings. The intervention types are number coded which isn't indicative of their intervention magnitude upon values. Then with the knowledge of the types of interventions and their effect on the physical setting and social environment, the subsequent post intervention value shift and its difference from the pre intervention values is explained.

Finally, this relationship is mapped via an assessment system that clearly illustrates the connection, type of change and value shift using information from the literature review, site survey, and the connections produced previously. The magnitudes of interventions are determined based on the extent of value shift within heritage residential buildings.

The conclusion takes into consideration all the chapters and intermediate conclusions to clarify the proper usage of the system and how the weaknesses and negative alterations to values can be avoided in a proactive manner. According to all the stages presented above, a clear conclusion to the findings of the thesis regarding post intervention value shift is presented with a clear illustration of the newly proposed system assessment method.

1.3.3. Study Limitations

The limitations of the study invite further discussion into the topic of post intervention value shift. Since this model aims to create a basis for studying value shift in heritage residential buildings in a replicable and expandable manner, an array of factors had to be fixed to minimize the variables that directly affect the study. The first limitation can be seen through this study's focus on analysing heritage residential buildings reused as hotels or lodgings. Different function changes introduce different intervention types and subsequently a large number of value changes that will not be possible to cover in one thesis. This choice was taken in an attempt to reduce the number of variables affecting the results in this study to reach an outcome that can be clear, replicable, and a methodologically sound base for further research.

Furthermore, this study tackles its objective through the detailed analysis of one heritage residential buildings reused as hotel, as a main information gathering source, while three other cases function as data reinforcing medium. More cases can be studied in order to expand on the base created in this thesis and to further ensure the replicability of these outcomes and supporting them.

In addition, this study focuses on interventions on the physical setting and the manner in which physical and social values subsequently change. Where the physical setting was thoroughly analysed, the social dimension and its change was studied through previous sources, historic records, and personal observations without the usage of custom social surveys undertaken by the author. This limits the full understanding of the manner in which social values shifted as they would be understood from previous and current users.

Finally, the economic value and value shift were cut out of the study due to its complicated parameters that cannot be studied in accordance with the frame of this thesis. Hence further studies can focus on the effect upon the economic values and their shift resulting from intervention magnitudes.

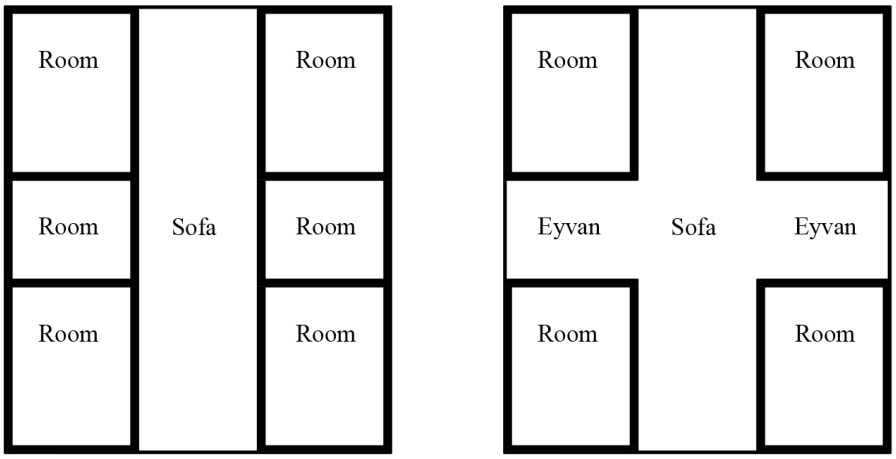
1.3.4. Site Selection Criteria

The declared conservation area of Antalya, Kaleiçi is chosen as the observation and study area out of an array of candidates due to fulfilling most of the requirements for a study region set by this thesis. First starting with its typology and location as a port walled city within the Mediterranean Sea, which acted as a social and cultural hub across history as evident through the historical context section in the third chapter of the study.

The Mediterranean is known for its mixed common cultures and architectural styles especially in port walled cities, rich in their residential buildings, that were among the most open and connected during their time. In Antalya this is a glaring feature particularly spanning the later Ottoman Empire era until the end of World War 1, with cultural diversity and migration to and from the region being a main discussion point in its history.

This study aims to examine and systemize post intervention value shift in heritage residential buildings; hence port cities of the Mediterranean are prime candidates allowing the coverage of a huge array of common features and similar building typologies through analyzing those found in one city. This is due to the many common architectural features found in heritage residential buildings across the interconnected Mediterranean and other neighboring cities, primarily the ones that were under Ottoman rule prior to the early 20th century.

Hence the buildings in question are late Ottoman buildings hosting a similar building technique and plan typology, most evidently the traditional Ottoman house with a central or inner sofa surrounded by rooms and/or eyvans. (Güçhan, 2017) This was a main criterion while choosing the site; intending for this study to be applicable and easily altered and adapted to equivalent heritage residential buildings of the late 19th to early 20th century located in and around the Mediterranean area.



Inner **Sofa** with **Rooms** on both sides.

Inner **central Sofa** with **Rooms** on each corner and an **Eyvan** in between them.

Figure 1.3. Schematic drawing of Ottoman House Inner Sofa Typologies found in Antalya, Kaleiçi. Drawn by the author as represented by Eldem (1968), Kuban (1995) and Küçükerman's (1991) in Güçhan (2017).

The conservation approach was another deciding factor for choosing the site, pursuing a location with an abundance of restored and reused buildings found in proximity and featuring an array of intervention types. Former walled cities checked off this requirement due to the internal organization of the area allowing clusters of residential buildings to be massed together.

The conservation master plans acted upon from 1979 forwards, discussed in Chapter 3 "Planning and Conservation History of Antalya Kaleiçi", feature different types of intervention to heritage residential buildings, hence offering a wide base of examination in this thesis.

The third reason was the restoration action's purpose, drive, and goal in the area. According to historical accounts Antalya, Kaleiçi was restored to be a touristic attraction site to the extent of being declared as a first-degree tourism centre. (Başok, 2016; & Alpan, 2013)

Figure 1.4. Similar typologies to heritage residential buildings found in Kaleiçi. (1) Al Nabulsi House, Ibrid, Jordan featuring a central sofa with eyvan. Retrieved from book2jordan.com (2) Yabrud, Syria: Residential heritage houses with inner sofa floor plans. Taken by: Eugen Wirth, retrieved from syrian-heritage.org (3) Beirut Heritage Houses in Gemmayzeh Area. Taken by: Mira Dandan, retrieved from beirut.com on 16/01/2023.

Thus, the touristically fuelled development of the heritage buildings and area featured in Antalya, Kaleiçi is an optimal location to study the effects of interventions for economic gain, beautification, and tourism on the social values of the building post intervention. This showcases a decision-making process that elevated the importance of some values over others to serve a certain agenda that the local government had at that time, and thus being a non-value-based approach, the effect of these intervention on the heritage values and cultural sustainability of the area can be clearly examined and analysed.

Hence the site study was done over the course of two visits: the first between September 22, 2023, and September 28, 2023, spanning 5 days; the second between February 6, 2024, and February 9, 2024, for 3 days.

A total of 8 days were spent on site. Before the first visit a plan of the area was prepared (based on archived plans) and a path was coursed aiming at surveying the entire walled town street by street. This search was oriented towards scouting heritage buildings that fit the criteria and factors for a clear and streamlined. The study variables and constants were then demonstrated, creating a baseline for picking heritage residential buildings to study. Said criteria were based on the set parameters, aim, and objectives of the study and aided by an array of gathered Kaleiçi documentation and sources.

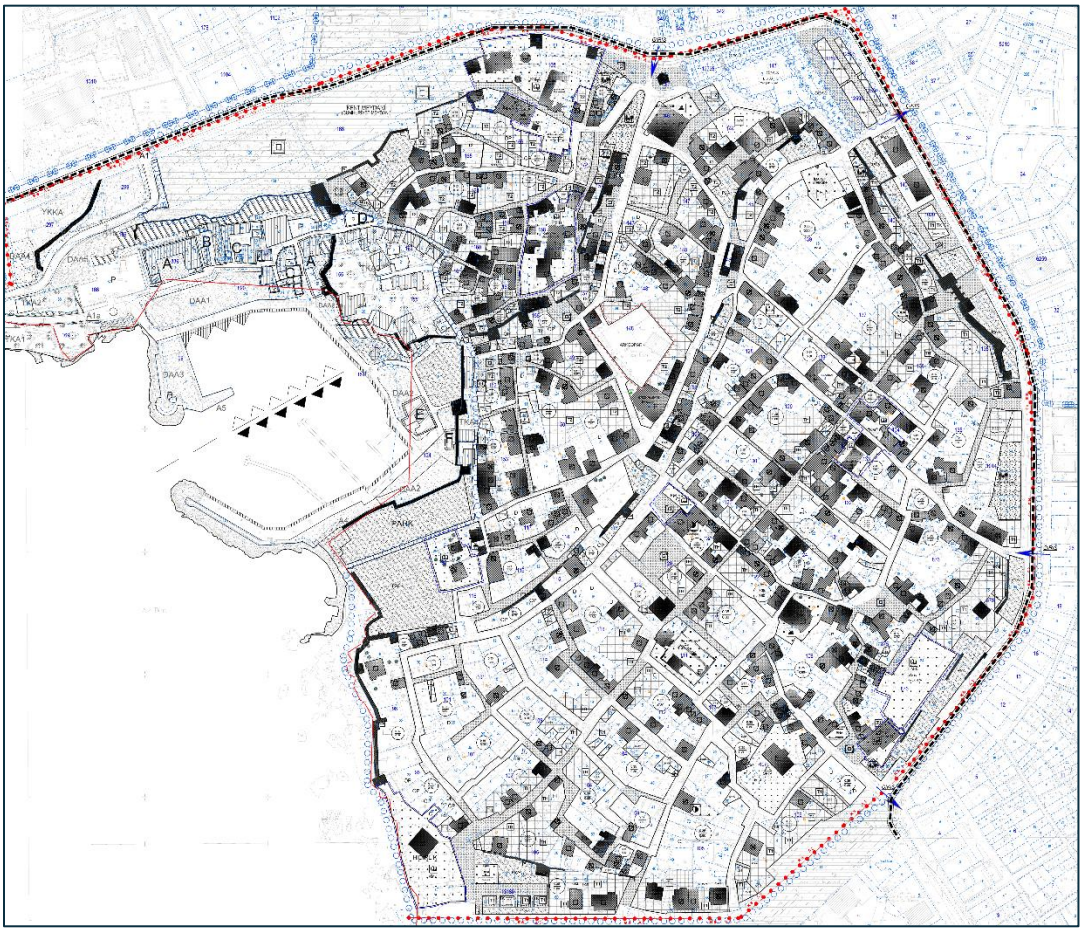


Figure 1.5. 2018 Conservation and Development Implementation Zoning Plan Revision of Kaleiçi, Muratpaşa. Provided by Antalya Büyükşehir Belediyesi, Department of Housing and Urban Development.

Regarding the first set of criteria, the heritage buildings had to be originally residential houses. The buildings were only to be chosen from the inner walled city of Kaleiçi so that they will be included in the master conservation plans of 1971 forwards. They had to be registered (based on the 2018 Conservation and Development Implementation Zoning Plan Revision of Kaleiçi) and featured the central or inner sofa Ottoman house plan as marked in the 1979 Antalya conservation master plan study, (METU team led by Tankut, G., 1979) for that is the more prominent typology in Antalya, Kaleiçi and the Mediterranean area in general.

This provided a wider base of data within the study region and assisted in rendering this study more adaptable to late Ottoman heritage residential buildings in other Mediterranean regions, which predominantly feature the central or interior sofa floor plan. Chosen buildings had to be also characterized by a structure of masonry base and a timber upper construction with stone or brick infill.

Moreover, the buildings should have had their Documentation (Rölöve) and Restoration drawings available at a minimum, with original pictures being a preferable addition. This was driven by the need to detect changes and thus conclude the intervention and value shift as accurately as possible.

The first site visit consisted of a thorough search of every street in Kaleiçi to scout the buildings that fit the criteria. These buildings were marked on the plan and their plot and lot number acquired. Photos and some sketches were taken, and notes were written about the condition of the building, function, and the perceived level of intervention. The presence of high intervention was based on the intensity of physical interventions initially seen, which aimed towards representing a varied case pool of intervention types. The conservation and development plans along with documents related to the registration, conservation, and action decisions were retrieved from Antalya Büyükşehir Belediyesi, Department of Housing and Urban Development and the Antalya Conservation Council.

Finally, the heritage residential buildings were chosen according to their reuse which was determined to be Hotels and Lodgings. The action decision had to labeled as KV[1] (or subsets of KV) as mentioned in the list of plot decisions and the implementation zoning plan revision for conservation purposes plan notes (Parsel Kararlari Listesi & Koruma Amaçli Uygulama İmar Plani Revizyonu Plan Notalrı, 2018) provided by the Antalya Büyükşehir Belediyesi, Department of Housing and Urban Development.

Thus, all buildings taken into consideration were heritage residential buildings reused as variations of hotels. This was due to the need to assess the effect of function change and current use on the approach and interventions introduced and thus the value change on a physical and social dimension.

On the other hand, it was observed that in Antalya, Kaleiçi, most residential heritage buildings are being reused as hotels or other types of lodgings for the tourists, (based on site surveys and Aygün & Düzgün, 2021) brought forth for its economic gain and the need to draw tourists inside the development area for a prolonged period.

This large pool of lodgings and hotels that are found all over the area provided a flexible base to find appropriate cases with different types of interventions; moreover, the presence of building values and value changes found in this type of heritage residential building.

Thus, further aspects were put into focus to achieve the needs highlighted in this thesis, mainly choosing buildings that feature different types of intervention and buildings that are more significant in the context of the area. From context of the site, the mentioned significance was then defined as encompassing two dimensions: first, the location of the building in relation to the main streets and main open areas and nodes where people gather the most.

[1] KV: Group II Registered Cultural Property - II.GrupTescilli Kültür Varlığı

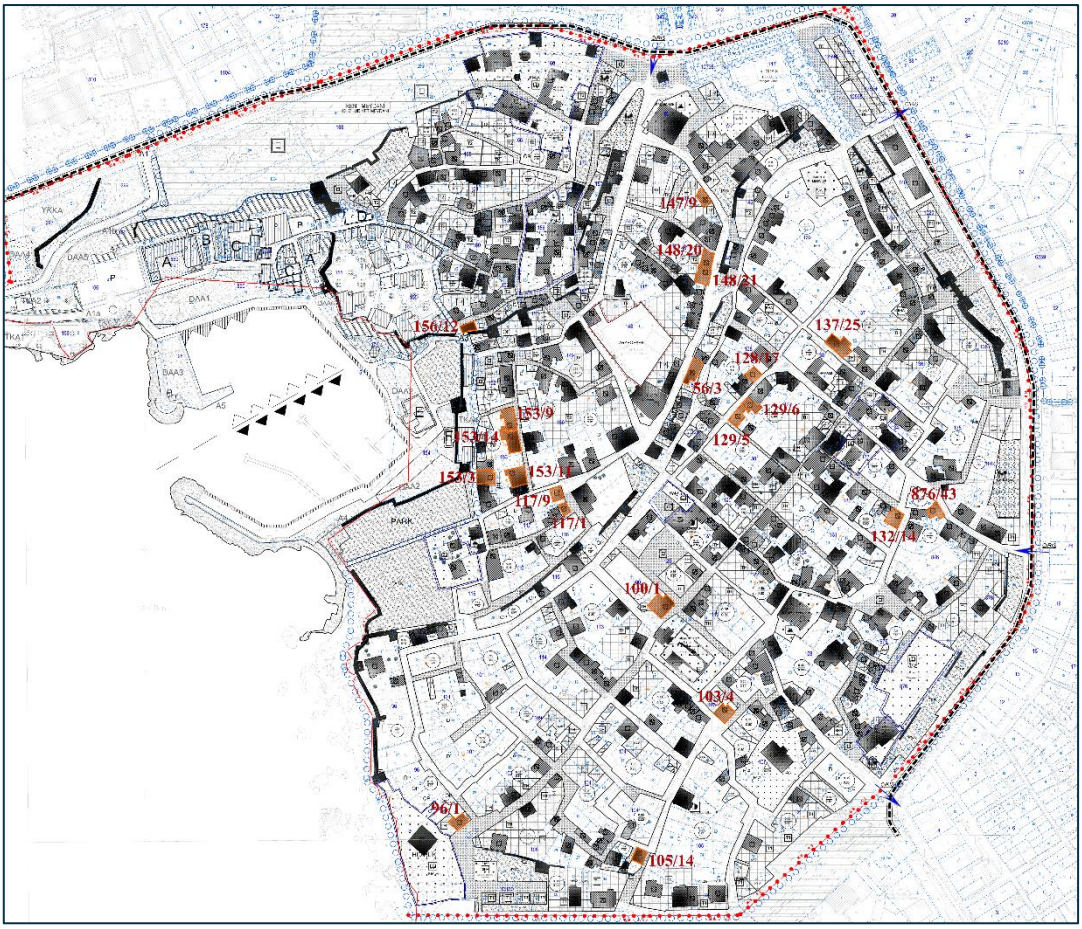


Figure 1.6. Master Plan of Antalya, Kaleiçi featuring the candidate heritage residential buildings highlighted. Based on the 2018 Conservation and Development Plan, provided by Antalya Büyükşehir Belediyesi.

Building Selection Criteria		
Originally a heritage residential buildings	From the inner walled town	Included in the first 1971 master conservation plan
Registered	Central or interior Sofa plan	Masonry base and timber or masonry upper construction
Availability of documentation and restoration drawings	Accommodation Type Buildings	Group II Registered Cultural Property

Table. 1.4. Building selection criteria. Prepared by the Author.

Hence the exposure that this building has due to its location, and second, the observed number of users that indulge in the building. Since some buildings exhibit a larger number of users than others while some are closed for a myriad of reasons, the buildings with the highest exposure-usability indicator are favored in choosing the final study cases for their ability to provide clearer indicators about the social values discussed in this thesis.

Secondly, alongside the significance factor, the visible level of interventions was deemed a case study determining factor. It consists of a preliminary judgment of the intervention level as perceived from the site visit and the provided documentation and restoration documents, encompassing minor and major changes to the facades and outer architectural elements, minor and major changes to the interior spatial organization and masses, and the consideration of any mass additions minor or major. This aids in choosing case studies that possess a higher intervention level for they determine different intervention types thus encompassing the rest of the thesis requirements.

		Exposure		
		1	2	3
Usability	1	1	1	2
	2	2	2	3
	3	3	3	3
"Exposure - Usability" **Significance Factor**				

Table. 1.5. Determining the Significance factor by analyzing the Exposure-Usability dynamic. Prepared by the Author.

In Table 03, exposure and usability are categorized from 1 to 3 according to their intensity. A building with a level 1 of exposure is seen as more important to the study due to its important location within Kaleiçi than a building with a level 2 or 3. Similarly, a building with a level 1 of usability sees more influx of users and is deemed more important to the framework for studying the social change than a building with a level 2 or 3. These ratings were based on the site survey and observations done by the author at two different times in the year: the touristic season during the summer and the off season at the end of winter.

Lot No / Building No	Significance (1-2-3)	Exposure	Usability
96/1	1	1	1
100/1	1	1	1
103/4	1	1	1
105/14	1	2	1
129/5 - 129/6	1	2	1
132/14	3	1	3
137/25	2	2	2
876/43	2	1	2
56/3	2	2	2
128/17	2	2	2
147/9	3	2	3
148/20	3	1	3
148/21	2	1	2
117/1	2	1	2
117/9	2	1	2
153/3	1	1	1
153/9	1	2	1
153/11	1	1	1
153/14	1	2	1
156/12	2	1	2

Table. 1.6. 20 initial buildings considered and categorized according to significance determined by exposure and usability. Prepared by the Author.

Lot No / Building No	Typology	Sufficient Visible Intervention	Significance (1-2-3)
96/1	Hotel/Resturant	✓	1
100/1	Hotel/Café	✓	1
103/4	Hotel	✓	1
105/14	Guest House	✓	1
129/5 - 129/6	Hotel	✓	1
132/14	Hotel		3
137/25	Hotel	✓	2
876/43	Hotel	✓	2
56/3	Hotel	✓	2
128/17	Hotel	✓	2
147/9	Hotel/Resturant		3
148/20	Boutique Hotel		3
148/21	Boutique Hotel	✓	2
117/1	Resort		2
117/9	Resort	✓	2
153/3	Hotel	✓	1
153/9	Hotel		1
153/11	Hotel		1
153/14	Hotel		1
156/12	Hotel	✓	2

Table. 1.7. 20 initial buildings categorized according to significance and visible intervention. Prepared by the Author.

In Table 05 the significance factor, which is determined via the amalgamation of the exposure and usability indicators illustrated in Tables 03 and 04, is coupled with the intervention factor. The intervention factor is, as mentioned previously, based on the site surveys, photographs, and initial drawings of the building. It indicates whether the building displayed enough variety of intervention types to be studied. Buildings that showcased this variety were marked as having “sufficient visible interventions”.

Finally, during the second site visit in February the 20 buildings were visited again for a second site survey, and the conservation council along with the conservation responsible architects were contacted for inquiries regarding the full drawings. The chosen buildings had to possess their full documentation and restoration drawings, and permission had to be given for their use in this thesis.

According to Table 05 only heritage buildings that possess a significance level of 1 and sufficient interventions for the study were to be considered. This left 6 buildings that fit the optimal requirements set in this thesis.

Lot No / Building No	Typology	Sufficient Visible Intervention	Significance (1-2-3)	Drawings Availability
96/1	Hotel/Resturant	✓	1	✓
100/1	Hotel/Café	✓	1	✓
103/4	Hotel	✓	1	✓
105/14	Guest House	✓	1	✓
129/5 - 129/6	Hotel	✓	1	
153/3	Hotel	✓	1	

Table. 1.8. The 6 buildings' drawings availability. Prepared by the Author.

4 of the 6 buildings fulfilled the criteria completely and had their drawings available with permission to be used in this thesis. From these 4 buildings, one was studied in detail this thesis, and it is located on the main King Road of Kaleiçi, connecting Hadrian's gate to Hidirlik tower, considered as one of the main touristic attractions in the area with the most influx of daily visitors. That building is 96/1 named Building A in this thesis, while 100/1 dubbed as Building B, 103/4 as Building C, and 105/14 as Building D. Building A will serve as the primary source of information gathering while B, C, and D are for reinforcing and supporting the data, the four of them are used to define intervention types while Building A is the main focus for the value shift analysis.

1.4. Structure of the Thesis

The first chapter starts with an introduction discussing the main parameters and ideas with a general view about the interconnected nature of the topics discussed in the thesis. Then the problems tackled are defined and supported through understanding the literature around the topics and establishing the research gaps in need of resolve. The aim is then stated and through the amalgamation of the problem definition, research gap, and specifying the aim the main research questions are stated. Subsequently, the scope of the study is set, starting with mentioning the main theoretical parameters then their relation to the case study. The third part consists of defining the research methodology, first by specifying the sequential research objectives, then by explaining the methodology of acquiring the information to fulfill the objectives. Finally, the site selection criterion explains in detail the intent and benefits behind choosing the site studied in this thesis, then delving into the intricate process of picking the buildings that are observed and analyzed in the later chapters.

In the second chapter the main attributes are researched, dissected, explained, and then integrated into the framework of the thesis one by one. This sustainability, values, types of intervention, and finally how all of these are interconnected into a causal relationship. Moreover, thesis specific values and types of intervention are defined to serve the following chapters of this thesis.

The third chapter revolves entirely around the site and case studies, which are the heritage residential buildings reused as hotels in Antalya, Kaleiçi. The general information, planning and conservation history, and the impact of the conservation master plan on the buildings in the area are deliberated. Next, the characteristics of the heritage residential buildings in Kaleiçi are specified along with the general trend of changes that occurred due to the interventions upon the historic town. Then the chosen case study building has its previous condition described, provided by documentation drawings and pictures so that their original values can be determined.

Then the current use is assessed and the changes to the physical setting are analyzed. Furthermore, the This leads to determining the intervention types.

In the fourth chapter, the original values are compared to the post intervention values and the concept of post intervention value shift will be deduced. Next, the detailed interconnected connection between intervention types and specific values change in heritage residential buildings is determined. Finally, the information concluded is aligned together in a systematic manner to form the Intervention - Value Shift System.

In the fifth and final short chapter the conclusion to the thesis is stated as an amalgamation of all the important concepts and systems culminated through the previous chapters.

CHAPTER 2

HERITAGE RESIDENTIAL BUILDINGS: SUSTAINABILITY, VALUES, AND INTERVENTIONS

The concepts of sustainability, values, and interventions within heritage residential buildings are the backbone of the theoretical framework of this thesis. More than their independent meaning, their interconnected nature forms the basis of understanding interventions on heritage residential buildings, value shift and the lasting effect on the cultural sustainability of the building.

Discussing sustainability includes the understanding of its meaning, debated in numerous charters and papers, within the premise of cultural heritage building conservation, sustainability pillars, and the manners to achieve said goal. The definition of sustainability changes in accordance with the framework it is studied in but nevertheless it is predominantly encompassed by three pillars: physical setting, social environment, and economic context. (Purvis, Mao, & Robinson, 2019)

Furthermore, building values are likewise a heavily reviewed concept in cultural heritage due to its importance in understanding the essence of the building and its standings as a piece of heritage. Hence comprehending the values of the building is a primary block in realizing why we conserve heritage buildings and more importantly highlights the important aspects that need to be conserved in order to preserve and enhance the overall cultural value of the building.

Finally, interventions are the approaches that physically change aspects within the building, and these can vary according to their level of intrusion. They range from low interventions that don't greatly affect the nature of the physical elements up to high that can cause substantial physical change. Hence interventions have been usually categorized according to their level of impact on the physical setting, and within cultural heritage conservation these interventions aim towards prolonging the life span of heritage buildings, to varying degrees of success.

Interventions to cultural heritage buildings are nevertheless under the cultural or touristic development umbrella, which sidetracks the intentions of the project to focus on some sustainability pillars while disregarding others. Stakeholders have a large impact on deciding the nature of interventions and the result of the project. Hence theoretically through these guided interventions upon the building, the values materialized through it change and some are favored over others, changing the essence of the building and ultimately impacting its cultural sustainability.

This thesis hence aims to redirect the manner in which interventions are categorized, from their degree of impact upon the physical elements and the severity of that, towards the effect of interventions magnitudes on the values embedded within these elements. This connection will establish a visible route from the intervention towards its direct effect on the values within the building, hence reorganizing interventions according to their value impact. This rethinking of interventions puts cultural sustainability first as an end goal of built heritage conservation. To reach that premise sustainability, values, and interventions within the built heritage conservation domain should be understood, their connections established so that the effect of changes can be understood in the later chapters of this thesis.

2.1. Sustainability and Values on a Building scale

2.1.1. Sustainability in Cultural Heritage Conservation

Cultural continuity is the process by which cultural assets are passed on to the next generation and is a central piece in establishing cultural sustainability. Built heritage is a such cultural component, and contrary to previous beliefs these assets can and are being used not just for the sustainability of the physical setting but also for the social environment and economic context. These three form the main pillars of sustainability in cultural heritage where the preservation and continuity of the built cultural assets is dependent on the preservation of the three. The sustainability of cultural assets can lead to the social and economic development of the area they are situated in, especially when they are reused with a function the incentivizes that growth. (Elyasi & Yamacli, 2023) And vice versa the development of these buildings lead to their sustainability in return. Heritage residential buildings discussed in this thesis are considered as tangible cultural heritage that represent a certain social and physical identity of a certain group in time. (Bonenberg, 2019)

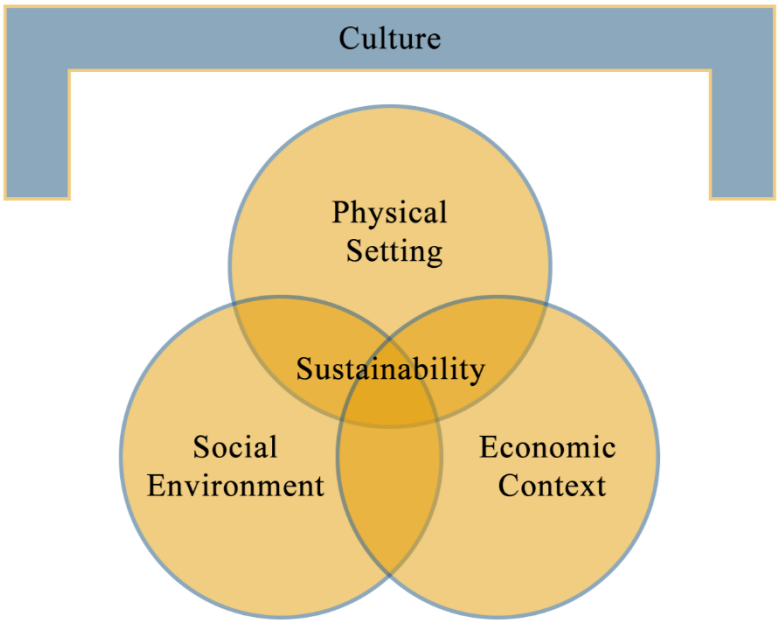


Figure 2.1. Illustration of the sustainability pillars cultural sustainability. Prepared by the Author.

Sustainability as mentioned by Pérez de Cuéllar (1996) is an objective to be recognized within the domain of conservation of cultural heritage. But aside from what cultural heritage bestows upon the sustainability of the area it resides in on all three fronts, the sustainability of the building itself is what is in question here.

Sustaining heritage then not only signifies the built environment itself as in the heritage residential buildings but the meaning they embrace, their use, functions, and intangible aspects they denote. (Mason, 2023) Built heritage is evidently divided between different approaches or priorities based on the intentions of the stakeholders and the project in hand. As mentioned, it encompasses all three pillar plus the cultural heritage hence achieving sustainability is difficult due to the priorities seemingly being opposing and the increase of one comes at the detriment of others. (Guttormsen & Skerde, 2023)

Concerning the sustainability pillars, when it comes to the physical setting, it encompasses the physical elements that compose the building and the way they interact with each other to form the lived in spaces. Their sustainability involves the continuity of physical elements and their ability to relay their authentic values over time for future generations away from any unfounded interpretations. On a social level the concerned aspects are the users, stakeholders, visitors, or tourists and their relationship with the physical setting and the meaning they bestow upon it. This pillar changes with alterations to the physical setting or via function change, the first one changes the elements and the significance, memories, or perceptions they embody while the later changes the users completely and hence transform the meaning held by those elements. The economic context is directly related to the use of the building and the practices held within by the specified users. Hence a function change directly affects the economic context for it decides the direction that this pillar evolves. (Özçakır et al, 2022)

It can be seen that all the pillars are intertwined and connected with each other, leaking into one another, and regularly affected by the same changes to the building. Delving deeper into the meaning of sustainability renders us face to face with the aspects that we aim to sustain.

A regression or loss of those pillar will affect the overall cultural sustainability of the building. A building with no physical setting will render the other two contexts obsolete, a building that lost its function or users and hence lost a main aspect of its social sustainability will also regress as a cultural asset, and finally a heritage building without an economic continuity offers a difficult position for its maintenance and upkeep of it as a cultural heritage asset.

Hence there is a connection between the pillars and the fabric of the building. The fabric of the building nonetheless is given an intangible meaning and dimension through their values. These building values are what connect the fabric to all the stakeholders in different ways and it is what gives the building its importance, uniqueness, and meaning. Values are the cornerstone in answering the question: Why do we conserve heritage buildings? And a simple question for that is: they have values. Since these values are interconnected with the building fabric, they are subsequently a determining factor of sustainability.

Through the sustainability of the physical setting, one is conserving the physical setting itself, and hence aiming at sustaining the values embedded inside these elements. Once a value is changed within a certain pillar, the sustainability subsequently will diverge from its route. As specified by Randall Mason: "*sustaining heritage means sustaining values*", in other words, to establish cultural sustainability of a heritage building, their values should be sustained.

2.1.2. Values in Cultural Heritage

Value is defined as “worth based on esteem; quality viewed in terms of importance, usefulness, desirability, etc.” according to Oxford dictionary, and “the relative worth, usefulness, or importance of a thing; the estimation in which a thing is held according to its real or supposed desirability or utility. Later also: such worth or estimation regarded in relation to an individual or group.” Hence it is clear that in cultural heritage the value of the building is its importance as allocated by multiple dimensions. According to Jones and Leech (2015, referenced in Mason, 2023) values in cultural heritage are intertwined with the building fabric and experiences of the users, also known as the history and materiality by Avrmi et al (2019), they comprise the heritage’s social infrastructure and represent the usage of these heritage assets in a sustainable manner.

Values are thus the connecting factors between the building elements and the users, and if relevant to a demographic the values make the place important and expressive more than being a collection of materials in need of effort and resources to fix.

As specified by De la Torre and Mason (2002) value is the underlying reason for conservation of cultural heritage, for people do not conserve what they don’t value. Hence the study of value showcases the importance and significance of the building and guides the conservation efforts. Conservation actions revolve around a set of values that are imbedded in the elements and the fabric of the building, hence when conserving the building the values are the things that are at the forefront aim to be preserved and nurtured.

Although contemporary values, mostly revolving around aesthetics and economy, redirect conservation efforts away from the imbedded building values for a certain agenda or stakeholder view. Over time the values can change or transform with change, either naturally or by human intervention, to the physical setting, social environment, and the economic context. (Avrami et al, 2019)

In this thesis values are the basis of a framework that guides a thought model of how built heritage should be approached and conserved. As stated by Mason (2023) it is not a complete or perfect method, but it is dynamic and useful by attempting to make conservation of cultural heritage more sustainable. This approach is ruled by some understanding about values: first is that values signify the characteristics of a heritage building, and that they are related to the physical, social, and economic context of the place. Hence there are value types that relate to each of these aspects. Second, there should be an understanding that values coexist and overlap within the same place, one place or even one element does possess values across the three pillars.

Even though some values are inherently found in a place, some of them are not as they are ascribed by stakeholders to fulfill a certain agenda. They therefore exist within a dynamic of the tangible and intangible, with the ideology of heritage conservation at its center. Furthermore, it is important to realize that values can be in conflict, especially between the inherited ones and the bestowed, thus not all can be realized with a single approach, the preference of what comes on top is guided by the conservation approach and more dominantly the stakeholder's needs. (Mason, 2023)

Values have been categorized into groups and given names over time, from Reigl in 1902 to the Burra Charter in 1998 in an attempt to characterize them in a range that would be relevant to most stakeholder and disciplines in need of such characterizations. Hence what is known as a typology of heritage values acted as a guide to understand the characterization of the values. Interconnected with the physical, social, and economic aspects of the building the values are thus integrated into a system that categorizes them within those three, with some of them overlapping to encompass wider aspects of user-building interaction.

As a point of departure, the classification of values is predominantly split into two: socio-cultural and economic values.

Not every heritage site has every value, on the contrary some heritage buildings possess values that others don't which makes almost every site unique and special. Sociocultural values are the those that are embedded in the building elements, the place itself, and the users or stakeholders, it ranges from age, esthetics, documentary, etc. The subsets of sociocultural values are closely related, but it is important to understand these as different because they correspond to different ways of perceiving the site to different stakeholder groups, and therefore to different bases for making management or conservation decisions.

These values change with time as the building ages or is conserved, they also change according to the users. Furthermore, values under this domain can be further distinguished into physical and social. The physical ones are more oriented towards the physical elements of the building and the values embedded in that while the social related to the suers and their perception towards the built heritage. (Mason, 2002)

On the other hand, economic values conceptualize the value of the building and its use in terms of money, resources, and economic gain, for example the use of the building is such an economic value where the value of the building is related to the income either direct or passive that can be generated from the build. It is one of the strongest way that stakeholders relate to the building, and it is a driving force for conservation. (Mason, 2002)

Conservation values recently have been guided more towards the route of highlighting and utilizing the economic values over the socio-cultural ones, since the conservation efforts are being driven by economic gain. Hence economic factors, even if they act as a driving force in conservation, they overshadow and dominate other values hence affecting them and subsequently the building negatively.

In this thesis the values are categorized in such a way that overlapping between categories is minimal, and economic values are omitted due to the alternate methods needed in realizing and quantifying them. A direct connection can hence be derived between values and building sustainability.

2.1.3. Sustainability and Values Dynamic

It is therefore clear that sustainability of cultural heritage and the built heritage value are intertwined in a dynamic relationship. For when it comes to sustainability of built heritage, the main goal is the continuity of the physical setting, social environment, and the economic context of a built heritage site, which comes through conserving it. Hence as specified, the sustainability of cultural heritage buildings is a goal to be achieved. Likewise, it is made clear that conserving cultural heritage is the conservation of its values.

Taking a closer look at each of those sustainability pillars, a connection is found between values and sustainability. The physical setting encompasses the built aspect of the building, from the building components and elements and all the stories they portray. The sustainability of the physical aspect of cultural heritage through conservation is hence bound by the conserving and sustainability of its values. The physical components of the building are just that if not given meaning by their embedded values.

Likewise on a social environment scale, the social values are bound by the users and stakeholders with the meanings, perceptions, and memories they bestow upon a physical setting. These meanings, which are an intangible dimension, are part of the sociocultural values discussed earlier. Hence the sustainable conservation of the social dimension of a heritage building entails the transformation or the preservation of the social values, depending on the type of project in hand, for the building to have an active social dimension.

On an economic scale, heritage buildings offer economic values that can be scaled up or down depending on the type of intervention. Economic sustainability characterizes the ability of the heritage building to provide income for itself or the area to further develop it. It is valuable in the literal sense of the word. Hence these bestowed economic values are important for the sustainability of the building, and are connected to physical, social, and functional aspects.

Taking off from the initial categorization of values into socio cultural and economic, it is determined that when looking at values from a sustainable conservation point of view these values are divided into three categories. Each sustainability pillar herald sustainability from a specific angle and hence manages the values related to that dimension.

Conserving heritage is conserving its values hence sustaining heritage buildings is sustaining the physical, social, and economic dimensions and their lodged in values. Values can thus be seen as physical values related to the physical setting, social values relating to the social environment, and economic values showcasing the economic context.

The sustainability of these values along with the physical, social, and economic dimensions they are embodied within leads to sustainable conservation, which highlights one of the main themes of this thesis: A value-based approach to sustainable conservation of cultural heritage.

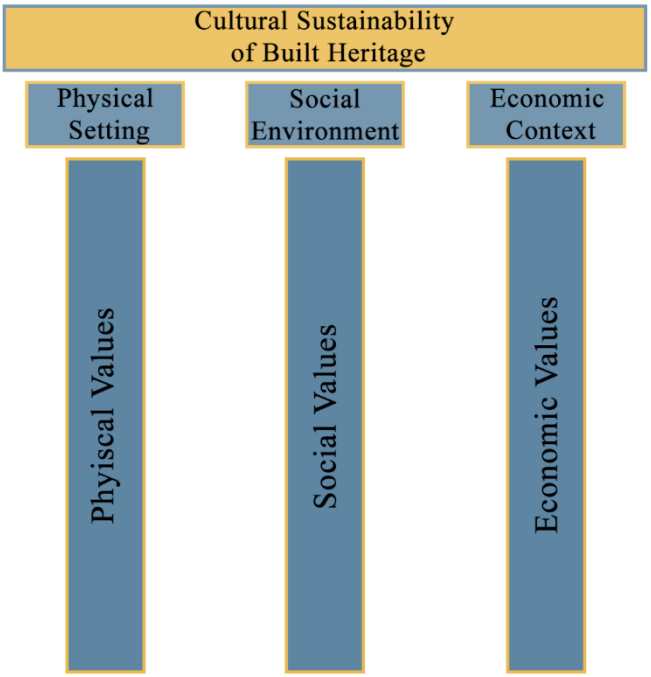


Figure 2.2. Illustration of the dynamic between the building values, sustainability pillars, and cultural sustainability of heritage buildings. Prepared by the Author.

2.2. Interventions to Built Cultural Heritage

2.2.1. Degrees of Intervention on Heritage Residential Buildings

Interventions within the realm of conservation of cultural heritage are the actions that can be done upon the historic building to achieve a certain result. In its optimal state interventions are applied on building elements that portray material or structural problems, deterioration, or are in a nonfunctioning order in order to return them to working order and hence conserve them. Interventions are thus understood as the tool that enables conservation of heritage buildings. (Bertolin & Loli, 2018)

Interventions as mentioned by Bertolin and Loli can be divided into two groups, the first exemplifies interventions that deal with the building fabric and physical elements within, while the other refers to the changes in performance and function. The first section will be studied through the changes to the building components and elements, and the second is highlighted within the function change through chapter 3 and 4.

Interventions have been assessed and categorized as levels or degrees based on their resulting intensity of change upon the building fabric. Based on Stubbs (2009) the greater the intervention level the larger the risk is on authenticity and the likelihood of irreversibility. Furthermore, dealing with conservation on a building scale is complicated since every intervention level holds within it the possibility for multiple different change approaches to the building elements. Hence intervention levels are considered all-encompassing approaches to conservation of heritage buildings.

As specified earlier, one of the goals of conservation is the continued use of the heritage building in a manner that respects the structural integrity and the physical setting with all the architectural elements in entails. In addition, interventions are intended to have minimal effect of the existing elements no matter what the building needs for its sustainable existence.

Approaching the categorization of intervention degrees calls for the clarification of some terminology. Conservation is often grouped as an intervention degree, even though its definition is more encompassing. Conservation as defined by ICOMOS (2013) is “All the process of looking after a place to retain its cultural significance” hence conservation by itself includes all the practices listed in the degrees of intervention.

Due to the dual physical and functional aspects of interventions which affect the heritage buildings in completely different manners, the intervention degrees only encompass those that interact with building fabric. Interventions that deal with function change are categorized as either adaptive use or compatible use.

Degrees of interventions within this study are considered as such as long as the building is within a specific location and hosting an array of its original architectural elements. Actions such as Relocation, Replication, Demolition, or leaving the site as is won’t fall under the “degree” categorization for they beat the intention behind conservation.

Hence based on Stubbs, Zhang & Dong, and Bertolin and Loli the intervention degrees on a building scale for the physical fabric can be considered as follows:

1. Prevention of deterioration: This is the first line of defense against deterioration and is considered a preemptive defensive conservation approach. They are the set of actions put in place to halt deterioration and prevent further decay or damage to cultural heritage assets. These actions are reversible, non-intrusive, and wide scaled.

2. Preservation: By definition this degree of intervention is extracted from the term “preserve” which means to keep safe from harm, maintain, upkeep, and guard against decay”. Therefore, it can be seen that preservation includes a set of all-encompassing non-intrusive soft monitoring, repair, or maintenance methods in order to keep or preserve a building at a certain state of cultural integrity and authenticity.

3. Consolidation: This degree of intervention goes a step further from repair and maintenance where it offers approaches to stabilize materials, elements, or the building as a whole. This degree includes a large range of solutions from minimal to considerable that could also be visible or hidden. These approaches depend on the problem at hand, the materials, the stakeholders, and a large array of studies needed in order to decide on a solution. Consolidation does not necessarily entail the reversal of the building to a previous functioning state but to protect it from further decay and stabilizing the building in a state that authentically represents it.

4. Restoration: This degree on the other hand reverses the building to a previous state in time and involves a large array of intrusive interventions. The application of such actions should be backed by evidence that justifies the restoration according to the original appearance and conditions, since significant modifications, alterations, removals, or additions would occur.

5. Rehabilitation: Can also be known by the term “renovation” since they encompass almost the same actions. This degree prepares the building to be used in a contemporary way, for even though heritage portions that represent the values are preserved, repairs and alterations to other sections of the building are done. They include extensive modifications of the building elements in order to be able to host a new purpose and modern facilities and services. All the modifications should fall under certain guidelines to ensure the cultural sustainability of the building.

6. Reconstruction: This level of intervention is seen as the most intrusive degree for it includes the partial or complete reconstruction of the building fabric using original materials. It is often used for completely or partially demolished sections of the building.

Every degree of intervention includes aspects of the one before it, and hence as we go deeper into the degrees the interventions become grander in scale and have an effect on the building. Those degree includes smaller bits of interventions that occur within affecting the building elements themselves.

2.2.2. Intervention Magnitudes on Heritage Residential Buildings

Having the degrees of interventions being the action acted upon the building as a whole for the cause of conservation, it is noticeable that each degree includes multiple actions within the effect the building fabric. Hence the intervention degrees are a culmination of multiple intervention types, as they are dubbed in this thesis. These intervention types are the action acted upon singular elements within the building for the sake of conservation.

Since intervention degrees are categorized in accordance with their level of impact on the physical environment, studying their effect on the values of the building is very challenging. Values change from one area of the house to another since they are brought forth by the architectural elements they emanate from. A direct connection point between the degree of intervention and the building values is not accessible without realizing the origin points of the values.

Changing the approach of perceiving the connection between intervention and their effect on values, a closer study towards the building is needed. A heritage building consists of components which constitute the main fabric that give the building its identity. For example, in the case of heritage residential buildings, the mass of the building, structure, plan, façade, etc. make up the main components of the building. Within these components are what is known as the building elements, which are the singular building element making up the larger component. Hence delving deeper to a building component scale, one can isolate the values embedded within the component's elements and study the effect of the intervention on the values.

For that the intervention types offer a closer more detailed look on how interventions affect the elements themselves and subsequently the values within. Hence like the degrees of intervention, the types offer an array of terminology used to distinguish between the different conservation approaches to the building fabric: Maintenance, cleaning, repair, consolidation, modification, alteration, transformation, relocation, reconstruction, replacement, removal, and addition.

Maintenance	Is the protective care of elements through inspection, cleaning, and minor works to maintain them in good functioning order and the life of the building. It does not require design, materials, or structural changes. (Icomos, 2013; & Feilden, 1982; cited in Zhang & Dong, 2021; & Oxford Dictionary)
Cleaning	Removal of any discoloration, biological growth or age signs from the materials using chemicals.
Repair	Minimal fixing, replacement, or reinforcement of decayed elements with the same material in accordance with their original form and construction technique including the core and outer covering layers. Done in order to maintain good physical condition and ensure proper working order over extended use. (Oxford Dictionary)
Consolidation	Extensive repair in order to ensure the stability and proper functioning of the element. (Stubbs, 2009)
Modification	Modify: The action or an act of making changes to something without altering its essential nature or character; partial alteration; (also) a change made. (Oxford Dictionary)
Alteration	A higher level of modification. Alter: Change in character or composition, typically in a relatively small but significant way. (Oxford Dictionary)
Transformation	To change physical aspects in an old element in order to give it a new meaning and use and make it complementary to contemporary needs. (Feilden, 1982; cited in Zhang & Dong, 2021)
Relocation	Removal of a thing from its place; putting out of place; shifting, dislocation.(Oxford Dictionary)
Reconstruction	Partial or complete reconstruction of the building fabric using original materials. (Stubbs, 2009)
Replacement	Replace: The action or an act of replacing something (in various senses) / To provide a substitute for; to put an equivalent in place of. (Oxford Dictionary)
Removal	To move or take (a person or a thing) away, to withdraw. (Oxford Dictionary)
Addition	The action, process, or fact of adding something to something else; the joining of one thing to another so as to increase it or alter it in some way. (Oxford Dictionary)

Table. 2.1. Intervention types upon single elements of the building fabric and their definition. Prepared by the Author.

2.3. Studying Change: The Interventions, Values, and Sustainability Dynamic

With the understanding of the dynamic between sustainability and values, interventions chime in in order to draw a complete picture of the process. The mentioned types of interventions are the changes on an element level, those same elements that characterize the values bestowed within them.

Sustainable conservation is the conservation of the building values rendered by the actions acted upon the building fabric, hence the intervention types. The values portrayed by building elements are thus the targeted dimension for conservation, and with the change that interventions introduce to the fabric, the values within said fabrics are vulnerable to change.

Intervention types do not solely affect the built environment, but all the values embedded in, and in the case of sustainable conservation these magnitudes should be categorized in an array that showcases their impact upon the values. For that reason, a conclusion can be reached that interventions to building elements affect the values portrayed by said elements in a range of ways, and for the goal of sustainable conservation these changes should be studied to understand the mannerism in which values change or "shift".

With the understanding of the building, its components and elements, intervention types, and the values within a clear picture can be drawn about the dynamic of this value shift process. The building process what is dubbed as pre-intervention values, which are affected by the interventions applied to a building hence making changes to the building elements causing a value shift and resulting in the post intervention values.

Hence to study this process all those elements stated should be clear and quantified so that the connection between the concepts becomes perceivable in a valid manner. And for the rest of this thesis the economic context is not discussed with the focus being on the physical and social dimension.

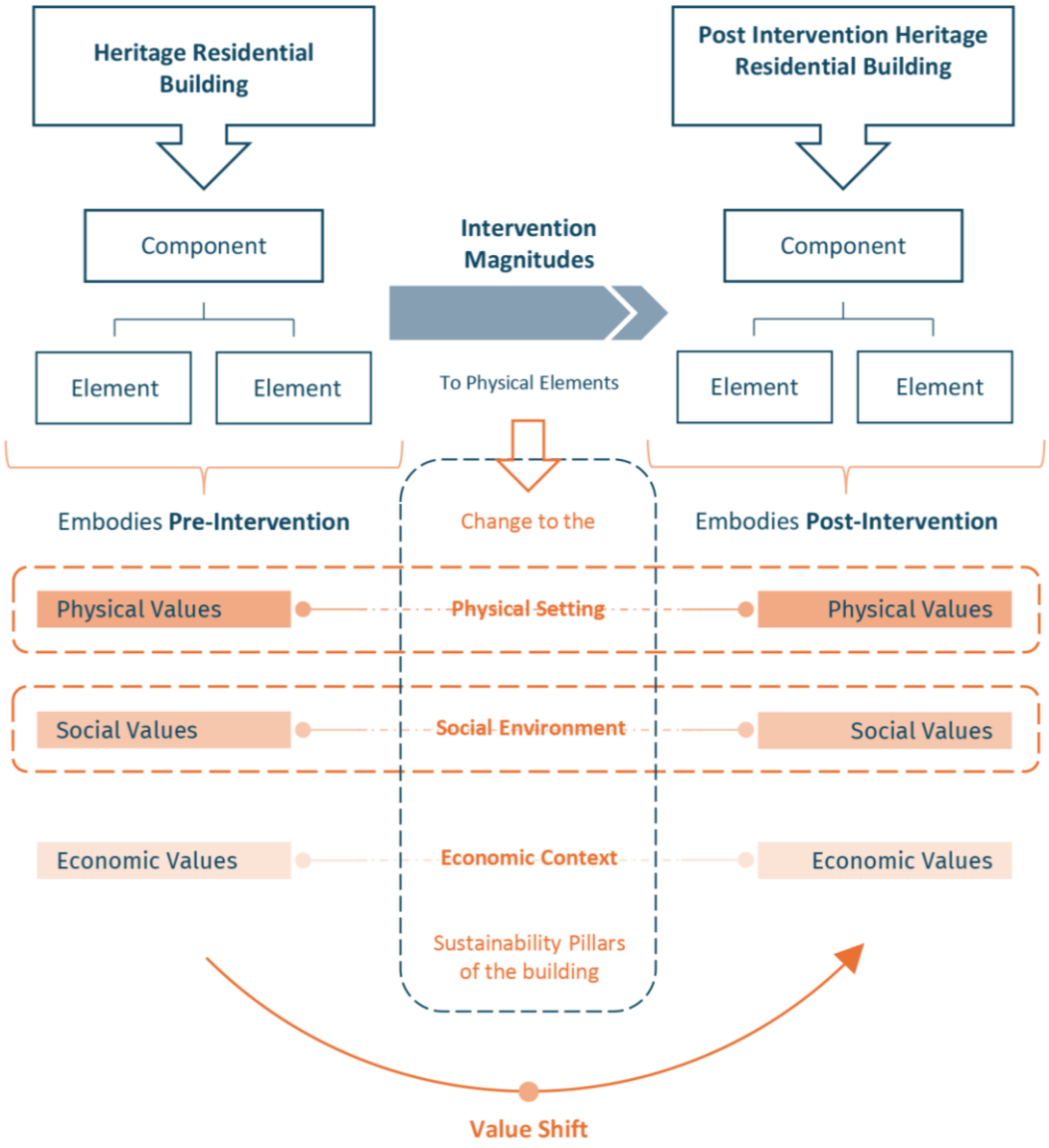


Figure 2.3. Illustration of the dynamic between the intervention magnitudes, building components, values, sustainability, and the resulting value shift. Prepared by the Author.

CHAPTER 3

CASE STUDY: DESCRIPTION AND ANALYSIS OF INTERVENTIONS AND CHANGE IN ANTALYA, KALEIÇI'S HERITAGE RESIDENTIAL BUILDINGS

3.1. Location and General History of Antalya, Kaleiçi

3.1.1. Location of Antalya, Kaleiçi

Antalya is located in southwest Anatolia, Turkey; with the geographic coordinates of 36° 53′ 14.64″ North and 30° 42′ 27″ East. It is bound from East to West by Mersin, Karaman, Konya, Isparta, Burdur, and Muğla while being open to the Mediterranean from the South. A part of the historic area inside the modern city of Antalya, dubbed Kaleiçi, is a fortified port city open to the Mediterranean Sea from the Southwest. Kaleiçi, the area in which the buildings under study are situated, is bordered by Tophane Park and Cumhuriyet Street from the North, Karaalioğlu Park from the South, along with Atatürk Street and the Mediterranean Sea and from the East and West respectively.

Figure 3.1. The location of the study area Kaleiçi within Antalya. Prepared by Author using Google Earth imagery.

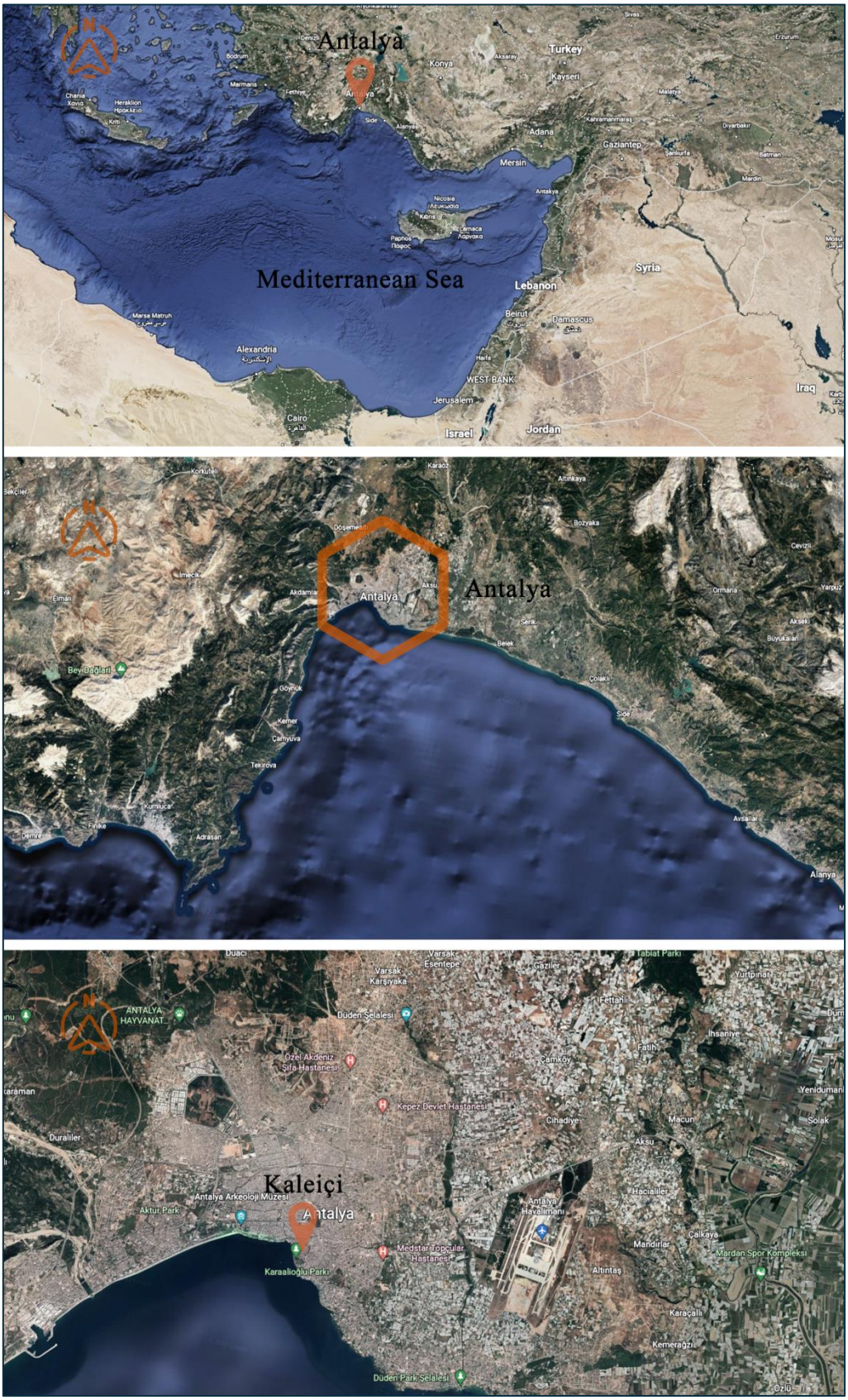


Figure 3.2. The location of Antalya within the Mediterranean Area on different scales. Prepared by Author using Google Earth imagery.

3.1.2. General History of Antalya, Kaleiçi

The history of Antalya, specifically the old walled port city of Kaleiçi, demonstrates its steady growth into a strategic hub of cultures, economy, religions, and architecture. The first signs of habitation in the general area of Antalya date back to around 50,000 years ago with a prehistoric settlement as evident by the Karain Cave 27 km northwest of Antalya near Yağcıköy. (Cimrin, 2002; Guide, 1990; Kıvran & Uysal, 1992; Onat, 2000; TMMOB, 1996; cited in Başok, 2016, p. 56) Antalya then continued its progression to be one of the first settlements in the Western Anatolian region around 2000 BC located between the Arzawa or "Arzawiya" and the Hatti entities in the region, according to the Hittite's records. (Bryce, 2009) (Memiş, 1995; cited in Başok, 2016, p. 56)

Figure 3.3. Antalya in 1300 BC (labeled as Perha, *AKA Perga*) located between the Hattite Empire and Arzawa's borders. By Anonymous, retrieved from Wikimedia Commons, CC by SA 4.0, 21/01/2024

During the **Hellenistic period** of the mid-2nd century BC, the Antalya region was already seen as a hub of cultures and tribes. The Antalya area was called Pamphylia by the Greeks which is one of the rare occasions were an Anatolian region was given a name by the Greeks. The name describes a land where all tribes live, hence a gathering point of multiple kin and cultures. (Bosh, 1957; cited in Başok, 2016, p. 56 and Alpan, 2013, p. 23) (Texier, 1862; cited in Başok, 2016, p. 56) There has been proof that the historic parts of the city of Antalya contained a previous settlement that grew from a small fishing community dating back to the 4th century as evident by a Necropolis in Doğu Garajı west of the city. The modern naming of Antalya came from its namesake King Attalos II, the official founder of the city. Records show that Attalos II needed a harbor city in the area for his military campaigns against the Romans and thus it was restored, occupied, and given its original name Attaleia after its king, blossoming into one of the most important Mediterranean port cities in the area. (Burhan, 2008; Büyükyörük & Tibet, 2000; Bean, 1999; cited in Başok, 2016, p. 57) The city hosted an uninterrupted occupancy due to its importance on an administrative, commercial, and religious level. (Foss, 1996; cited in Başok, 2016, p. 58)

Figure 3.4. Antalya in the Hellenistic period (labeled as Pamphylia) and the main Anatolian areas surrounding it. By Encyclopedia Britannica, Inc., retrieved from www.britannica.com, 21/01/2024.

Between the First and Third centuries AD the city of Attaleia was occupied by the Galatians under the **Roman Empire** by what's known as the "Pax Romana", the Roman peace treaty where the governor of the city was indirectly under Roman rule. Antalya was one of the first cities in the region to undergo a Romanization process: where a Roman fabric[2], grid city plan, was introduced by the implementation of structures and street layouts still standing and perceivable to this day. Hadrian's Gate, the foundations of some buildings, discernible street layouts, and water channels, etc., are such examples that survived hitherto due to later renovation efforts.

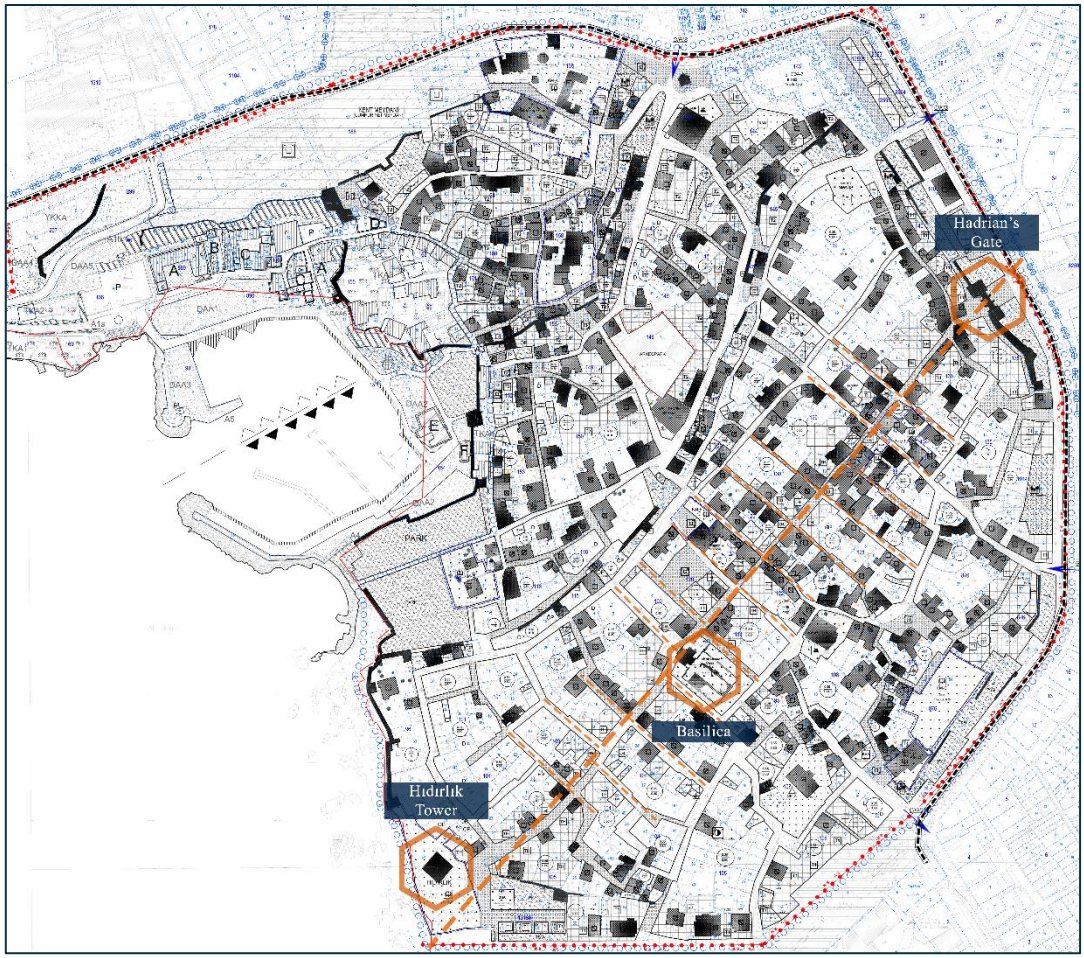


Figure 3.5. Potential Roman layer of Kaleiçi. Based on Yağcı, 2009; Süer, 2006; cited in Uluç, 2014, p. 88. (Underlying site plan: 2018 plan of Kaleiçi provided by Antalya Büyükşehir Belediyesi).

[2] The probable Roman layer of Kaleiçi supported by Yağcı (2009) and Süer (2006) as cited in Uluç (2014) suggests that the main road extended from Hadrian's gate to Hıdırlık Tower, with a Basilica through the point of intersection of the decumanus maximus and cardo maximus. The grid pattern was supported by archeological findings and emphasizes the identity of Antalya as port city, since the decumanus extend from the end points "gates" towards neighboring settlements. (Gelernter, 2001) Hence the port was seen as an essential point in reaching other settlements.

Even though Antalya was an important commercial harbor city, a prestige appellation was not given to it by the Roman Empire. (Gökalp, 2008; cited in Başok, 2016, p. 63) The walled city was regarded as a naval fortress, connecting trade routes of land and sea, (Yağcı, 2009; cited in Alpan, 2013, p. 25) later expanded upon as the trading prospects diversified between Europe, Africa, and Asia.

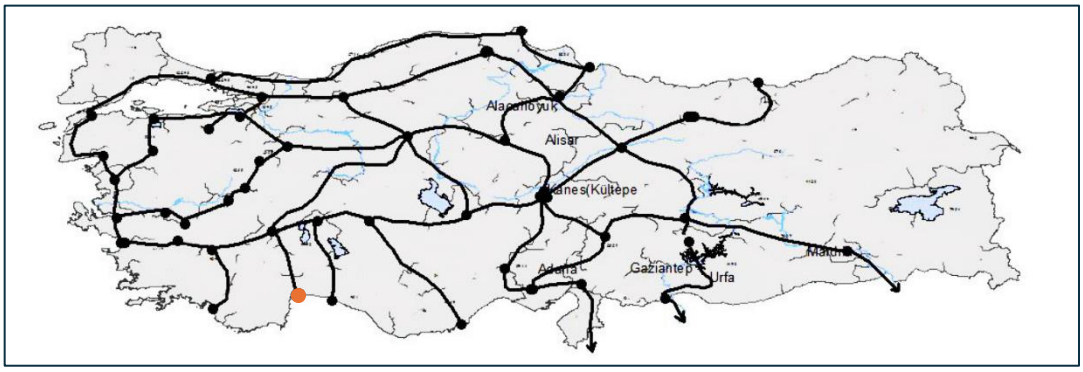


Figure 3.6. Roman period trade routes. Illustrated by Jahanabad (2017) using ARC-GIS, based on Bölen (1977).

After the split of the Roman Empire into two, the Western and Eastern Roman Empires, in 395 AD, Antalya was under the *Eastern* **Byzantine** rule with Istanbul as the capital, where it acted as one of the most strategic cities: serving as a midpoint between the capital and southwest part of the Mediterranean. It was a great and distinctive walled city within the Mediterranean that constantly flourished, hosting a major naval and commerce base for the Byzantine Empire second only to Istanbul. It was also known for its major religious Christian presence within the area. (Erdem, 2002; Foss, 1996; cited in Başok, 2016, p. 68) The heavily fortified city and its walls withstood the wars of the 6th century, and the recurring battles in the area between the Christian Byzantines and Muslims resulted in the city changing rules multiple times from the 8th till the 11th century. It was highly contested as a strategic point from a military, commerce, and religious perspectives all throughout the Crusades. Antalya remained under Byzantine rule till the 12th century when it was conquered for the final time by the Seljuks. (Bean, 1979; Foss, 1996; cited in Başok, 2016, pp. 70-71)

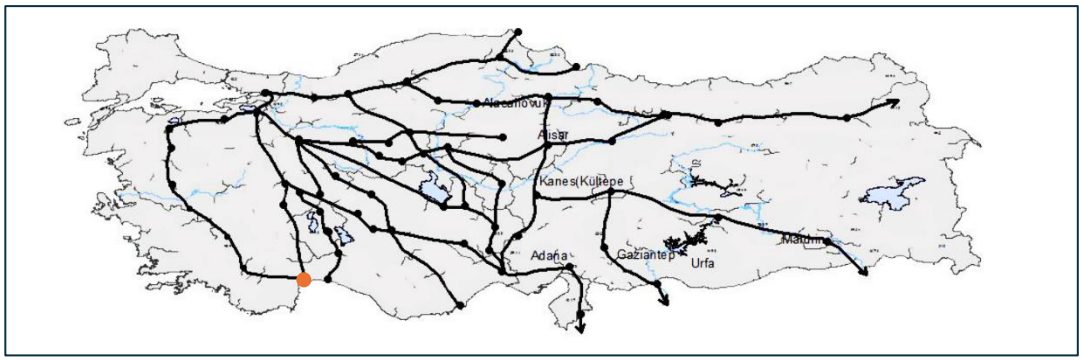


Figure 3.7. Byzantine period trade routes. Illustrated by Jahanabad (2017) using ARC-GIS, based on Bölen (1977).

Antalya was overtaken by the **Seljuk**'s Sultan Ghiyath al-Din Kaykhusraw ibn Kayqubād in 1207 AD and again in 1216 AD by his son Izz al-Din Kaykaus ibn Kayhkusraw after falling to the hands of Christians in 1212 AD. Due to its known importance in the region, Antalya became a Seljuks Navy Base and a trading center with Europe which revolutionized trade for the Seljuks who previously depended on land trade. This led to the further development of Antalya and the strengthening of the Seljuk Empire as a whole.

Antalya then continued its development into one of the most important commerce ports in the Mediterranean region, based on the previous Byzantine routes, especially as a connecting point between Egypt and Europe and to other main cities in the Mediterranean and Anatolia by land. (Doğan, 2010; İbn Bibi, 1285; Mahmud, 1943; Redford & Leiser, 2008; Tankut, 2007; Turan, 1993; cited in Başok, 2016, pp. 73-77) In this era four focal ethnic groups inhabited the city: Christian European tradesmen, Jews, Greeks, and Turks. (Alpan, 2013, p. 29)

The famous Muslim traveler Ibn Battuta recorded his visit to Antalya in his traveling memoir "The Rihla" (1355) at the outset of the 14th century which painted a picture of the demographics inside the walled city:

"From 'Alaya I went to Antaliya [Adalia], a most beautiful city. It covers an immense area, and though of vast bulk is one of the most attractive towns to be seen anywhere, besides being exceedingly populous and well laid out. Each section of the inhabitants lives in a separate quarter. The Christian merchants live in a quarter of the town known as the Mina [the Port], and are surrounded by a wall, the gates of which are shut upon them from without at night and during the Friday service. The Greeks, who were its former inhabitants, live by themselves in another quarter, the Jews in another, and the king and his court and mamluks (servants) in another, each of these quarters being walled off likewise. The rest of the Muslims live in the main city. Round the whole town and all the quarters mentioned there is another great wall."[3]

Figure 3.8. Anatolia and Antalya during the Seljuk period. By Encyclopedia Britannica, Inc., retrieved from www.britannica.com, 21/01/2024.

[3] From the English version of "The Rihla" by Ibn Battuta (1355), translated and selected by Sir Hamilton Alexander Rosskeen Gibb (H. A. R. Gibb) as "Ibn Battuta Travels in Asia and Africa 1325-1354", The Broadway Travelers Series (1929), Routledge and Kegan Paul LTD, London, pp. 124-125.

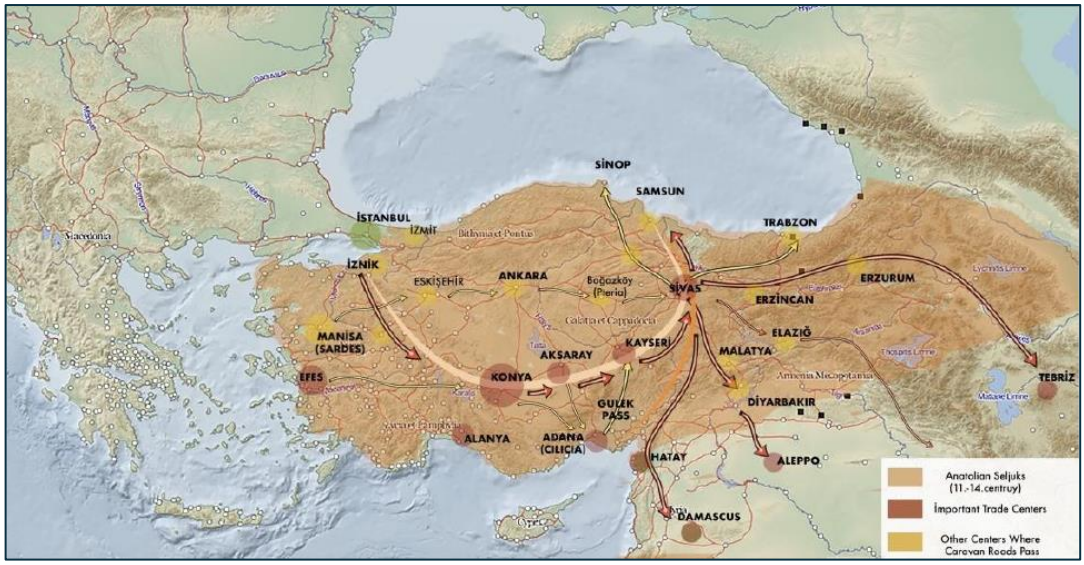


Figure 3.9. Anatolian trade routes and main trade centers during the Seljuk period. By Darendeli & Binan (2021).

Antalya witnessed a halt and a downfall in its progression after the fall of the Seljuks in the region caused by the Mongol invasion at the end of the 13th century. Thus, at the beginning of the 14th century Antalya became a part of the **Hamidids** Principality and later under an indirect rule of the Ottoman empire in 1393. The Hamidids control of Antalya completely ended in 1423 where it shifted to direct Ottoman rule. (Başok, 2016, p. 84)

Under the **Ottoman** rule, the population within the city of Antalya and the events that changed the cultural dynamics are well documented and subsequently give a more well-rounded look at the demographic and cultural shifts within the city. During the 15th century Antalya had a population of around 1020 and became a part of the Ottoman Sanjak, districts under the rule of one of the Ottoman princes, where multiple religious buildings and schools (madrasa) were built. Antalya once again was one of the main trading centers within the Mediterranean for the Ottomans and a connecting route between Alexandria and Europe with the ever-expanding naval trade with Asian countries, like the spice trade with India. As such it was attacked by crusaders in 1472 to disrupt commerce. They plundered and set fire to the city but nevertheless couldn't capture it due to the fortifications of the city walls. (Sevim & Yücel, 1990; cited in Başok, 2016, p. 91) (Güçlü, 1997; cited in Alpan, 2013, p. 32)

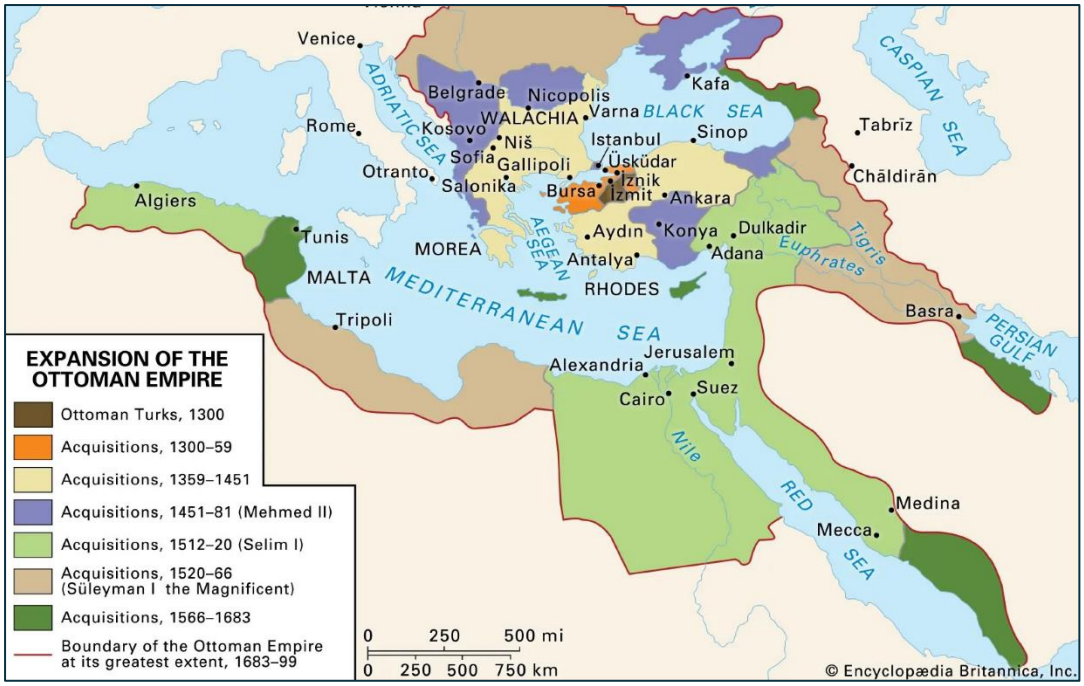


Figure 3.10. The expansion of the Ottoman Empire. By Encyclopedia Britannica, Inc., retrieved from www.britannica.com, 21/01/2024.

Population wise, Antalya started to witness a merger of different cultures starting from the year 1530, where Antalya had a population of 3284 Muslims and 582 non-Muslims. In 1568 the records show an increase of 4205 Muslims and 685 non-Muslims. In 1573 the occupation of Cyprus by the Ottomans led to a population substitution between Cyprus and Antalya where around 300 Christians from Cyprus located to Antalya and vice versa. This showcases that the cultural diversity Antalya was previously famous for was still strongly featured due to the population migrations within the Mediterranean. In 1754 Antalya contained 16 neighborhoods inside the walls and 22 outside of them with the non-Muslim population of around 1500 all living in the interior district along with the Muslim populous. The increase in population, which reached around 8000 total (two-thirds Muslims and a one-third Greek of different religions) at the start of the 19th century according to Francis Beaufort (Beaufort, 1817), wasn't as drastic as other Mediterranean areas. This was due to some interior conflicts in the region that resulted in deportations of groups to other locations, but the footprint of the city and its identity as a walled defensive hub created a high level of cultural diversity within the city walls. (Emecan, 1991; Karaca, 1997; cited in Başok, 2016, pp. 93-96)

Another reason for this lackluster increase in population compared to other areas in Ottoman Turkey was the shifted focus to Izmir port as a more dominant port in the area. Thus, Antalya started to degrade as a port city with lively commerce as noted by Charles Texier (1862) through his visit to the area in the 19th century.

The 19th century heralded great changes to the city with the newly introduced **Tanzimat**, administrative reforms, of the Ottoman Empire. Antalya, being a port city, underwent major restructuring between 1839 and 1876 to its economic, political, and social structures starting with declaring it as an official city with the name of Anatalya. Antalya expanded at that time as a commerce city with influence from Eastern countries under the European colonization which affected its social and economic structures and architecture along with it. (Dostoğlu & Neslihan-Oral, 2000; Türk Ansiklopedisi, 1971; cited in Başok, 2016, pp. 100-101) Starting from 1869 major decision took place that rapidly changed the features of Antalya like destroying parts of the city walls to sell them and fund a port expansion project. (Çadırcı, 1991; cited in Başok, 2016, p. 102)

In 1888 the official population count in the greater region of Antalya was 172,854, which consisted of 156,168 Muslims and a remnant of other different religions of mixed ethnicities. (Güçlü, 1997; cited in Başok, 2016, p. 103) More specifically, Kaleiçi in 1885 included around 26,000 residents based on Karl Grafen von Lanckoroński's writings, with 7300 being split between Greeks (7000), Jews (250), and Armenians (50). On the other hand, the Muslims being the majority where a mix of Turks, Arabs, and Levantians. (Lanckoroński, 1890) From 1876 till 1913, due to the breaking down of the Ottoman Empire and some areas gaining their independence as separate countries specifically in the Balkans and Caucasus, thousands of people who wanted to remain under the Empire were relocated to other areas for their protection; some settled in Antalya which further increased the diversity in the region. This demographic mix heralded visible changes to the city on an economic, social, and architectural scale especially after the residential rebuilds subsequent to the 1895 fire and the 1911 earthquake. (İpek, 1999; Saydam, 1997; Ucuzsatar, 2002; cited in Başok, 2016, p. 105)

Figure 3.11. The dissolution of the Ottoman Empire, and the Italian area of influence in Antalya. By Encyclopedia Britannica, Inc., retrieved from www.britannica.com, 21/01/2024.

World War I started in 1914, and the Ottoman Empire fell by the end of it in 1918; by that time, it lost major lands in the south, east, and west. Italy evidently had an eye on Antalya due to the benefits gained from the location in the war and thereafter. As such Italy occupied Antalya gradually starting from 1913 in political and economic processes, then militarily in 1917 and established a base there in 1919 that lasted 2 years. Important social, economic, and political projects were initiated by the Italians to slowly attract the citizens towards the Italian and European ideologies and modernized vision of the city. (Celebi, 2006; cited in Başok, 2016, pp. 110-116)

The Italians left Antalya in 1921 after negotiating peace terms with the Turkish government in Ankara. From the beginning of 1923 till the end of 1924 Antalya was part of the population exchange convention with Greece, where Turks were received from Greek lands while Greeks in Antalya were sent away. (Oksüz, 2000; cited in Başok, 2016, p. 125) (Çimrin, 2007; cited in Argin, 2012, p. 75)

These events create a vivid image of the status quo in Antalya especially post the 19th century when the true nature of a culturally diverse Antalya became prominent. The already mixed demographic character, within the borders of Kaleiçi, intensified with further resettling and immigration of the Ottoman population into Antalya. With the Great War and the subsequent Italian influence on the area, the multi cultured late Ottoman architectural style seen in Mediterranean areas could be clearly perceived, especially with residential buildings of the late 19th to early 20th centuries.

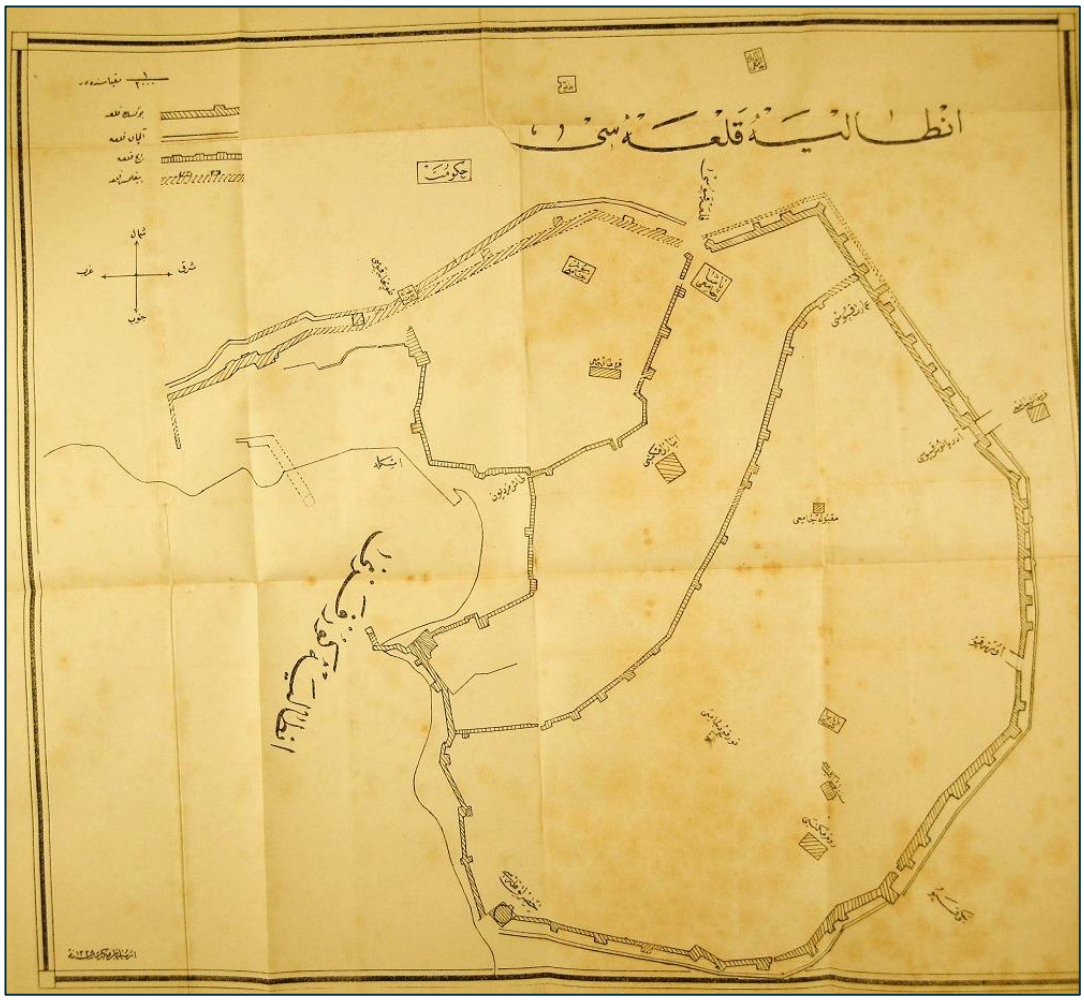


Figure 3.12. 1922 Ottoman Map of Kaleiçi prepared by Suleyman Fikri Erten. From the Ottoman Archives.

3.1.3. Planning and Conservation History of Antalya, Kaleiçi

Considerable changes to the identity of Kaleiçi started to take place post the First World War. A majority of Kaleiçi's historic fortification walls were demolished in the 1930's due to complaints from the residents regarding the lack of ventilation within the enclosed area caused by fresh air obstruction prompted by the city walls; although some records suggest that the decision was heavily encouraged by local authorities for the financial profit from selling the stones. Likewise, some buildings were erected in locations opposed to what's permitted in the Ancient Monument Act Article 8, illustrating the nonchalant attitude of local authorities towards cultural heritage in that period. Bolstered by the shortsightedness regarding built heritage values, an array of new republican constructions and projects occurred in this period that overtook some of the historic footprint throughout the area.

Figure 3.13. 1953 Aerial Photograph of Kaleiçi. Retrieved from Başok, 2016; taken from The General Command of Mapping.

After the Second World War, Turkey like a multitude of other countries was suffering from financial predicaments resulting from the economic stress of realizing another major war. Thus, through the State Planning Institution (SPI), Turkey heralded a planning period in 1960; by which historic centers capable of being advertised as touristic destinations, such as Antalya, were given the touristic development treatment to overcome the economic deficit and usher in foreign income. (Alpan, 2013) However in Antalya, the income flow projects guided by the touristic potential of the area were already in the works through the "Beautification of Antalya Association", established by the governor of Antalya post the year 1940. (Çimrin, 2007; cited in Argin, 2012, p. 75; & Çimrin, 2005; cited in Başok, 2016, p. 137) Through this endeavor main roads and parks surrounding Kaleiçi were erected which set the present borders of the area.

During the 1950's the first studies for an Antalya development plan commenced, triggered by the 1930 Act for Municipalities number 1580 which enforced upon all municipalities the preparation of master plans. Hence an "existing situation" report was devised in 1954 by the Zoning Commission led by Antalya's Governor Şefik San. It encompassed information regarding demographic, social, health, economic, financial, and physical aspects including an evaluation of the historic fabric in the area. (Başok, 2016) The report concluded the need for a development plan and the urgent establishment of all the public facilities and services needed by the populace within the area. After the report's finalization, an Antalya Zoning Plan was prepared in 1955 through a competition held by the Bank of Provinces. The titlist's project was thereafter approved by the Ministry of Development and Housing[4] (*İmar ve İskan Bakanlığı*) in 1957. Even though the study treated Kaleiçi as a protocol area, the plan had faulty quantitative measures and disregard for the historic urban fabric when designing certain zones and axis. (Yağcı, 2009; cited in Başok, 2016, p.143) Hence, a reanalysis and revision of the plan was called for and reapproved by the Ministry of Construction and Settlement later in 1957.

[4] The Ministry of Development and Housing which was later changed to the Ministry of Environment, Urbanization, and Climate Change.

Simultaneously, in 1955, monuments in Antalya started being registered via the completion of their respective registration forms by Archeologist Kemal Turfan. (Başok, 2016) This mainly encompassed the prominent historical monuments and excluded the residential houses.

In 1965, Bank of Provinces took the decision to renew Antalya's Master Plan to encompass the expanding nature of the city. As such, Kaleiçi was officially declared by the High Council of the Historic Real Estates, Artifacts, and Monuments (*Gayrimenkul Eski Eserler ve Anıtlar Yüksek Kurulu*) as a "protocol area" in 1967, which is a precursor for the term "conservation site" introduced in 1973. (Argin, 2012; Başok, 2016; & Alpan, 2013) This declaration was brought forth with the assumption that it will hinder the destructive development ventures in the area and halt new constructions. Nevertheless, it couldn't protect the heritage sites due to the perceived continuous unmonitored interventions to historical buildings and new constructions within. (Tankut, 1979; cited in Argin, 2012, p. 76)

Approval of the updated master plan took place in 1969 by the Ministry of Development and Housing. Kaleiçi Area was nevertheless left out of the plan to consider touristically fueled conservation decisions within a year justified through law 6/12209 by the Council of Ministers which stated: (Başok, 2016)

> *"Evaluation of tourism opportunities of country according to Tourism Development Policy, determination of the potential areas for tourism, supply of necessary facilities as soon as possible and prevention of loss of tourism values".*

With the introduction of the tourism concept and touristic values in 1971, it became a development tool in Anatlya and considered as a priority to its development and conservation by the stakeholders. Hence Antalya was declared as a first-degree tourism center where this drive towards tourism affected all planning decisions and projects in Kaleiçi thereafter. (Başok, 2016)

Antalya was then declared an official Conservation Site in 1973 under decision No. 7176 of the High Council for Historic Real Estate, Artifacts, and Monuments (*Gayrimenkul Eski Eserler ve Anıtlar Kurulu*). As such, according to the Law of Historic Artifacts No. 1710 it was mandatory to prepare a conservation plan for the area. (Başok, 2016) Conservation activities in Kaleiçi were looked upon holistically within the domain of a heritage conservation site and all singular unapproved actions were stopped within the area. (Argin, 2012)

Due to the construction of Antalya's commercial harbor in 1964, the old port in Kaleiçi lost its significance and was rendered a fishing location for locals. Thus, the Kaleiçi port was declared a conservation area in 1973, by the High Council for the Historical Real Estate and Monuments (*Gayrimenkul Eski Eserler ve Anıtlar Yüksek Kurulu*) (Başok, 2016) The project named "Yacht Harbor Project" was prepared and approved in 1976, defined as a Tourism Center and focused on the restoration and revitalization of the port zone by transforming the surrounding into an accommodation and entertainment hub for touristic purposes. (Uyar, 2007; cited in Argin, 2012, p. 78; Gül, 2006; cited in Başok, 2016, p. 148; & Uluç, 2014) The process was split into two parts, the first dealt with the renovation of the harbor zone itself, and the second focused on the restoration of the surrounding buildings. (Uluç, 2014) Field work on this project started in 1974 with surveys which occurred between 1974 and 1975. Planning took until 1978 then to be approved by the High Council for the Historic Real Estate, Artifacts, and Monuments. Execution work started in 1978 but stopped abruptly the following year due to a noticed lack of knowledge pertaining to proper conservation of historical buildings. Hence this stage was commissioned to 3rd party architectural firms with knowledge on traditional techniques. (Başok, 2016) The project fully opened in 1986, 10 years after its start under the management of TURBAN: Tourism Bank.

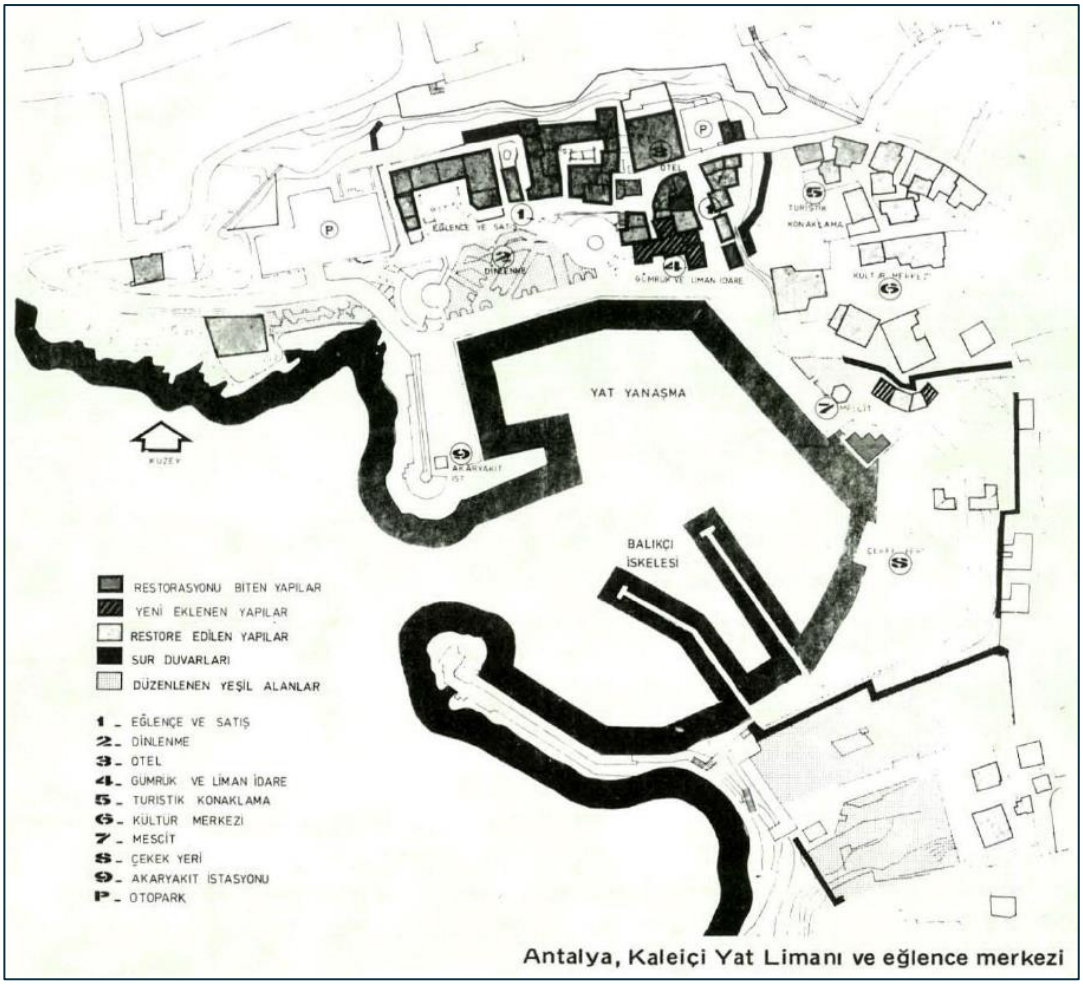


Figure 3.14. 1976 Yacht Harbor Project. Retrieved from 1984 Tek Yapıdan Çevre Korumaya, Mimarlık Dergisi.

Concurrently, in 1974 the talks about Antalya's Zoning Plan were initiated, later to be started in 1977. (Madran, 2001; in Argin, 2012, p. 79) The Antalya Master Development Plan got finalized by Antalya's Municipality Planning Office in 1979 later to be approved after revisions in 1980. In this plan, Kaleiçi was considered a historic site with touristic development outlooks. (Başok, 201; & Uluç, 2014) Subsequently, in the same year a METU team led by Gönül Tankut was put in charge of preparing a Kaleiçi Conservation and Development Plan, which took place between 1977 and 1979.

Then in 1977 the study of the entire Kaleiçi Area (excluding the harbor) on a social, physical, and economic scale began through an Urban Conservation Plan by the mentioned METU team, with the contract issued from the Ministry of Tourism. The goals of this plan as summarized by Gönül Tankut, the leader of the study, (1979; as cited in Argin, 2012, pp. 81-82, & Başok, 2016, p. 161) included rejuvenating the habitability of the area by congruently blending the conservation of cultural heritage aspects and values, the touristic goals asserted by the stakeholders, along with restructuring the social, economic, and physical dimensions of the area for a better quality of livelihood according to modern standards. (Öztekin, 2010; as cited in Uluç, 2014, p. 115) Hence alongside the focus on conserving the physical heritage for its myriad of values; the social, economic, and health aspects of the current users were front and center when developing the urban conservation plan. Decisions were based on physical, social, economic, commercial, and ownership data gathered via surveys within the area. (Başok, 2016) It was presented as a holistic process that takes into account the economic benefits from heritage and cultural tourism, while trying to nourish the roots of the current users.

Figure 3.15. 1977 Antalya Kaleiçi Conservation Development Plan Lot Analysis. Retrieved from METU Library Archives.

Figure 3.16. 1977 Antalya Kaleiçi Conservation Plan. Retrieved from METU Library Archives.

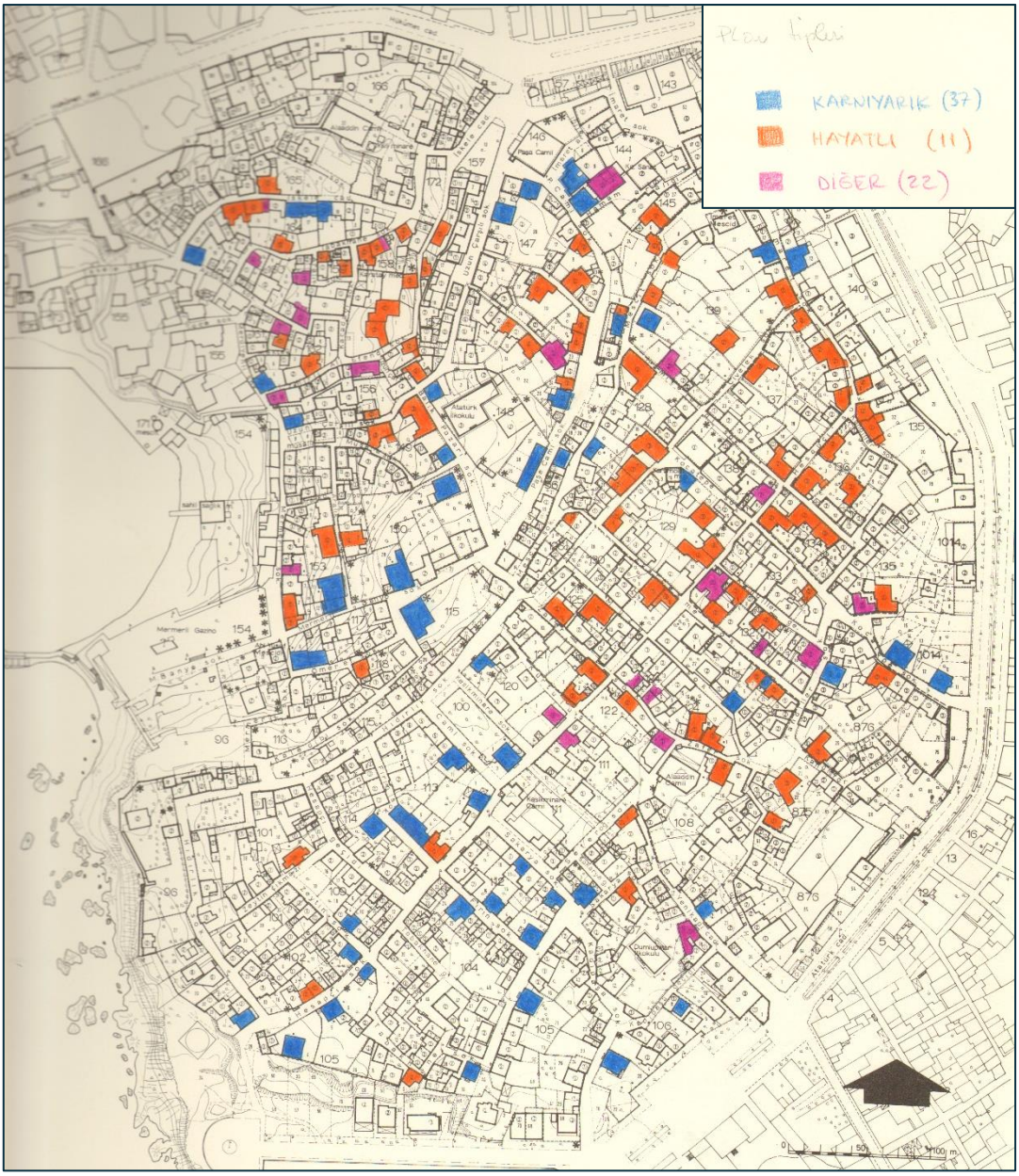


Figure 3.17. 1977 Antalya Kaleiçi Conservation Plan Analysis Example, Plan Typology Study. Retrieved from METU Library Archives.

The Urban Conservation Plan “Kaleiçi Preservation and Development Zoning Plan” was approved in 1982 and put into effect after multiple adjustments and revisions. (Gül, 2006; cited in Argin, 2012, p. 85) By the decisions of this plan, the studied buildings were distributed into groups according to their characteristics, by which some of them gained their registered status, and respective conservation decisions were allocated to each category. Another set of verdicts were allocated for new buildings construction, empty parcels, and natural conservation sites that serve the overall development concepts for the area. (Başok, 2016) It was described by Madran (2001, cited in Argin, 2012, p. 83) that the new functions introduced to Kaleiçi were not organized by district but by areas. Meaning the heritage buildings in a specific area, mainly residential, were reused as a specific function; either as commercial, accommodation, residential, hospitality, etc. while other areas were allocated as archeological sites and green spaces. This nevertheless didn’t pan out as planned due to the increasing touristic ventures in the area; thus, from 1985 forwards tourism took hold and many heritage residential buildings all around Kaleiçi were rehabilitated into accommodation and hospitality type buildings, leading to changes to their interior organization affecting their physical and social values. (Uyar, 2007; cited in Argin, 2012, p.85) Even though the exterior facades of the buildings weren’t heavily changed, most buildings lost their residential use after this period of interventions which goes against the original plans initiated in the 1977 Urban Conservation Plan. Furthermore, due to the rich cultural layers found in Kaleiçi, separate portions of the area were categorized into either first- or second-degree archeological sites, historical urban sites, and natural sites. This differentiation aided in complicating the perception of Kaleiçi as one entity and instead induced the sense of separation, which went against the original goals of the plan. (Başok, 2016) Hence Kaleiçi was recognized as an Urban and Third-Degree Archeological site in 1989. (Uluç, 2014) Furthermore, future revisions were in the works to study the effect of the changes on the area and propose further adjustments, predominantly tackled by the 1992 Kaleiçi Conservation Development Revision Plan.

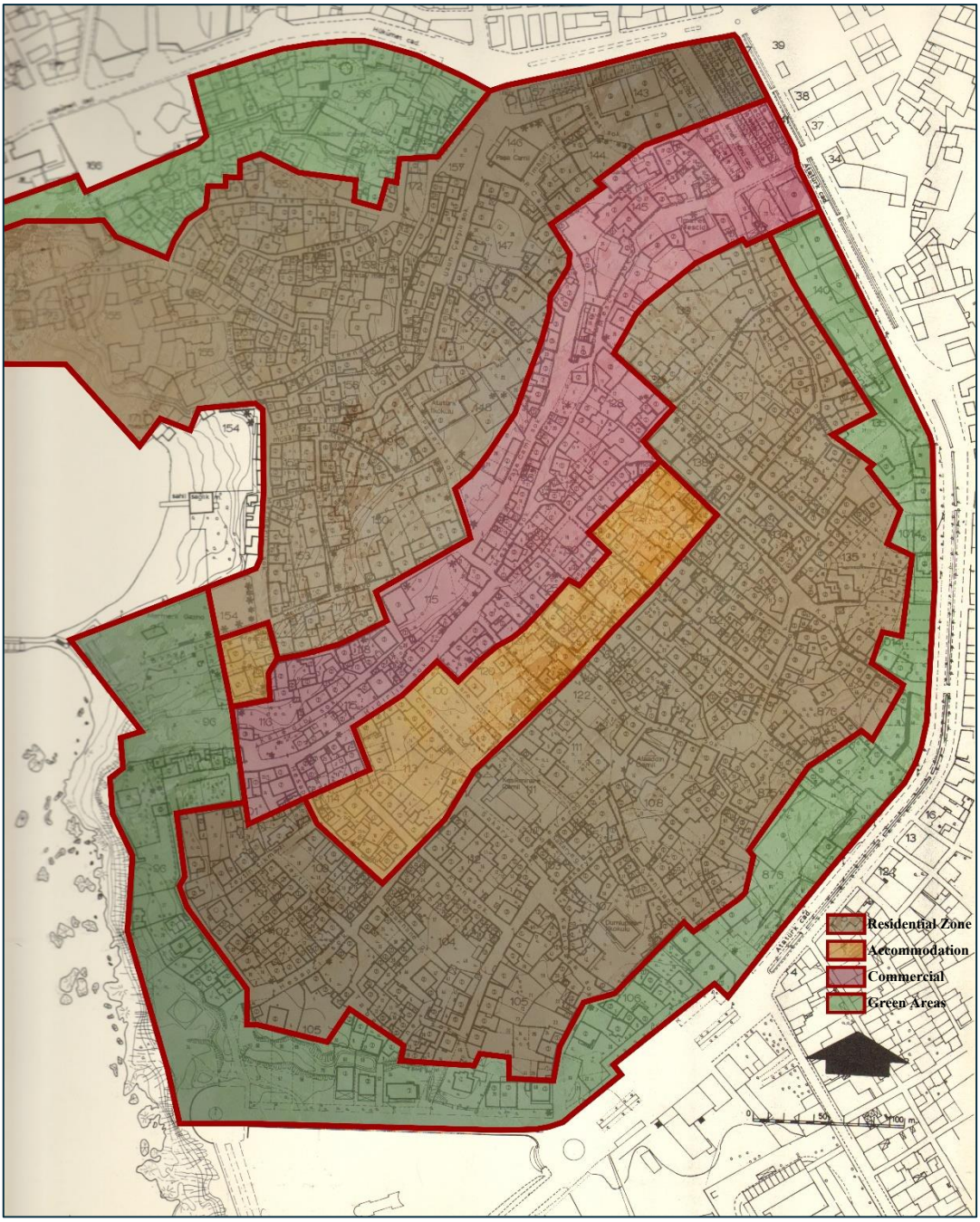


Figure 3.18. 1977 Antalya Kaleiçi Conservation Development Plan Land Use Decisions. Prepared by the author based on the 1979 approved plan.

As it was losing its identity as the city center of Antalya and with the rapid development of Kaleiçi as a touristic hub, an urban development project was in the works aimed towards the growth of Kaleiçi's surrounding areas. In 1990, the "Kalekapısı and Its Surrounding Urban Design Competition" for Kaleiçi's surrounding commenced, aimed towards defining the urban identity of the old city center as a whole and supplementing the needed facilities that would complement the expanding touristic identity of the city; utilizing restoration actions that doesn't destroy the historic fabric and renovation approaches that encourage development. In addition, the design proposals took into consideration strategies that would elevate the living conditions of the populace around the historic center. In line with the perceived nature of development in the old town, the chosen project aimed to recombobulate the surrounding areas through the consolidation of the social identity in the zone in parallel with tourism. (Başok, 2016 & Uluç, 2014) The implementation of this project nevertheless remained limited due to the unforeseen negative outcomes that ensued enacting some of the principles on chosen test zones; hence weaknesses and threats insisting in those areas weren't solved as predicted and leaked through the present.

The "Kaleiçi Conservation Development Revision Plan" was approved by the Conservation Council in 1992 after being commissioned to a METU team in 1989 as a follow up to the 1977 one. With this revision the team aimed to adjust to the evolved Kaleiçi zeitgeist by enriching and organizing the touristic development and zones in the area all while attentively governing the later use change of heritage buildings and urban fabric. (Madran, 2008; cited in Argin, 2012, p. 86) The needed control and limitations over the use change came as a result of the declining permanent residents in the area heralded by the rise of tourism, the steady loss of intangible heritage assets, and the need for rehashing the conservation guidelines for projects within Kaleiçi. (Başok, 2016)

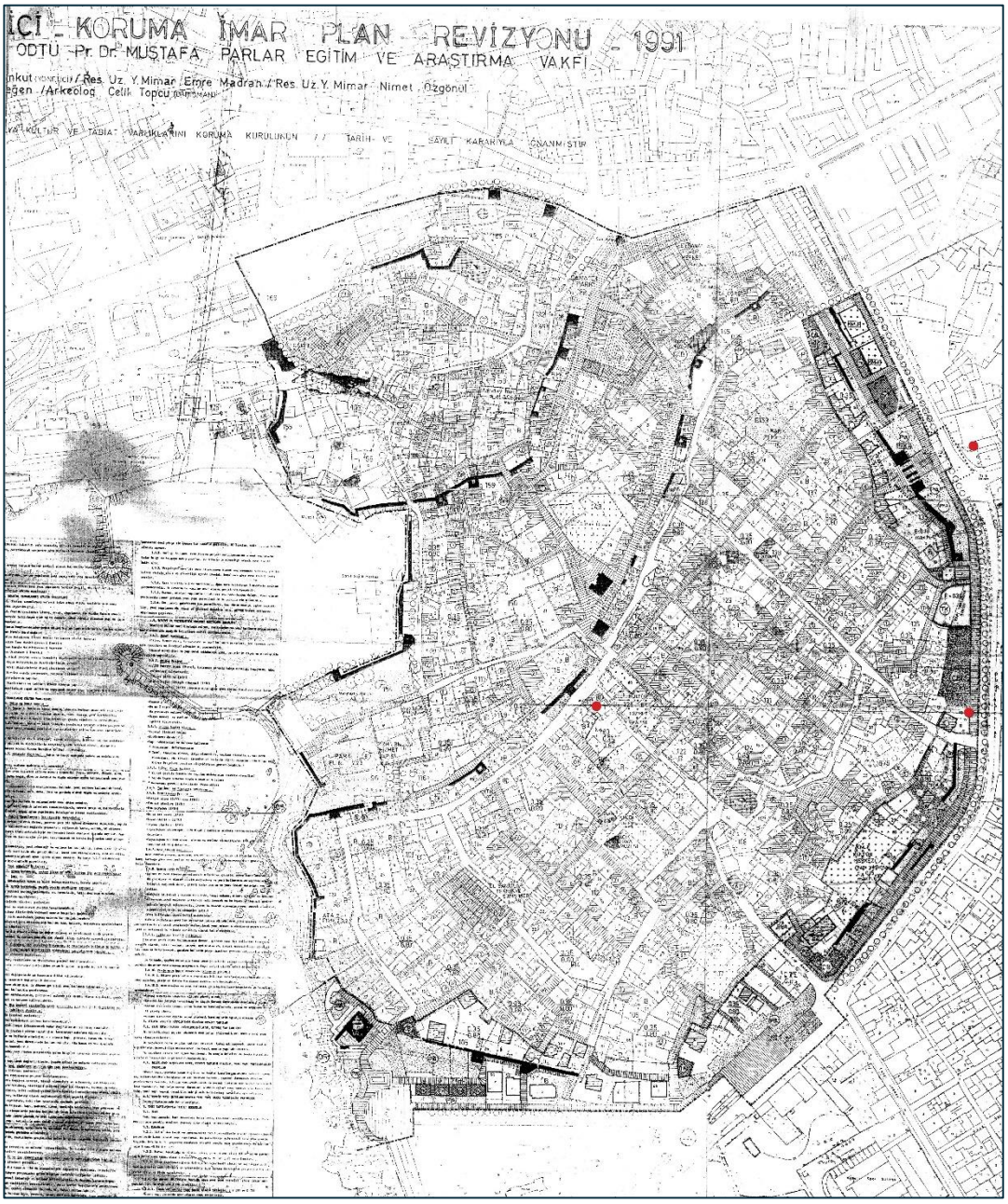


Figure 3.19. 1991 Antalya Kaleiçi Conservation Development Plan Revision. Retrieved from Antalya Büyükşehir Belediyesi İmar ve Şehircilik Dairesi Başkanliği.

In 1993 a new development master plan was prepared by a 3rd party group and approved by the Metropolitan Municipality in 1996, later to be revised in 1997. It dealt with providing some solutions and modern commercially fueled development proposals to the areas within proximity of the northern city walls. (Başok, 2016)

In 2003 the “Front City Wall Urban Design Project” was initiated with the goal of properly showcasing the remaining remnants of the city wall and better tie in the environmental elements for a more homogenous experience within the zone. The means to reach this goal included the expropriation of some lots and buildings adjacent to the walls and demolishing them in order to expose the remaining parts of the walls. Another aspect of this plan was the organization of the functions and introducing new ones within the zone to better unify the environment. This was nevertheless never seen to its end aside from the demolishment of some buildings adjacent to the walls, mainly due to the expropriation cost burden on the local authorities. (Gül, 2006; Süer, 2006; cited in Argin, 2012, p. 90)

In 2004 the city center of Antalya was announced as a “Culture, Tourism Conservation, and Development Area”. This was due to the popularization of the holistic perception pertaining to the conservation of cultural heritage areas; hence heritage zones were defined as a complete entity on a larger scale with interconnected pieces instead of the singular microscale interventions experienced previously. On the other hand, it acted as a public declaration on the touristic and commercial nature of the city. The new definition of the area led to the Development plan of 2005, which marked the historical center as a “Central Conservation and Transformation Area,” and the Renewal project of 2006. (Argin, 2012 & Uluç, 2014)

The renewal project of 2006, prepared by Tabak Construction office and approved in 2007, (Başok, 2016) included strategic and physical planning and refurbishment of Hesapçı Street, one of the main streets in Kaleiçi, and its surrounding physical entities; defined from Hadrianus Gate to Hıdırlık Tower (historically known as the king’s road).

This was followed by the 2007 Kaleiçi Renewal Traffic Circulation Implementation Project which reorganized the vehicular networks to, from, and around Kaleiçi based on the 1992 Revision Plan with some adjustments. (Başok, 2016)

Further decisions, like the 2008 Kalekapı City Center Renewal and Street Rehabilitation Implementation Project were made to the inner Kaleiçi streets and urban landscape in which some streets were allocated solely for pedestrians, while others had limited vehicular accessibility. Quality of life additions were implemented such as allocated car parking spots and refurbishment of street furniture and pavement. This project encouraged the preparation of further interventions and conservation projects to registered traditional buildings. (Başok, 2016 & Uluç, 2014)

The Yacht Harbor area likewise received a revision to its development plan after its visible social quality degradation with the start of the 1990's. TURBAN, the foundation responsible for the management of the old harbor zone, abandoned the endeavor after its inability to put forth the needed financial support. Hence in 2007 studies on the area began by KUDEB, *Koruma Uygulama ve Denetim Büroları*, in preparation of a revision plan which was later accepted in 2008. The aim of this revision as mentioned by Madran (2008, cited in Argin, 2012, p. 93) was to inject new life into the yacht harbor zone through new properly planned conservation actions that serve the touristic development agenda in a seemingly equitable manner with the portrayal of cultural identities. An emphasis was placed on the preplanning and the proper organization of the functions and regulations to avoid undesirable outcomes like previous endeavors, which predictably fell short. Subsequently, this led to the "Kaleiçi Utilization Instruction" manuscript in 2010 organized by the Development and City Planning Department of Antalya's Municipality which aimed to combine Kaleiçi under one set of regulations and future development objectives. The regulations focused on the aspects of conservation, rehabilitation, and repair codes along with monitoring the additions to the elements within the physical environment and controlling the negative outcomes of administering a touristic area. (Argin, 2012)

Since 2011 KUDEB has been working on revision plans for both the Kaleiçi area and the Yacht Harbor zone due to the lack of any macro scale development plans since the revisions of 1992 and 2008 respectively.

The new revisions should facilitate the regulations set by the Kaleiçi Utilization Instruction manual while appealing to the current understanding of urban heritage conservation. As specified by Argin (2012) the aims for the new Kaleiçi development plan revision range from utilizing the mentioned instruction manual of 2010, encouraging the reintegration of residential usage into the area after almost becoming extinct in recent times due to the overwhelming tourism. Other goals specify the need to highlight the historical and cultural identity of Kaleiçi while simultaneously rendering the area a more touristic friendly habitat. As for the harbor sector, the goals seem more weighed towards making the overall area easier to navigate, experience, and interact with through accessibility and quality of life changes.

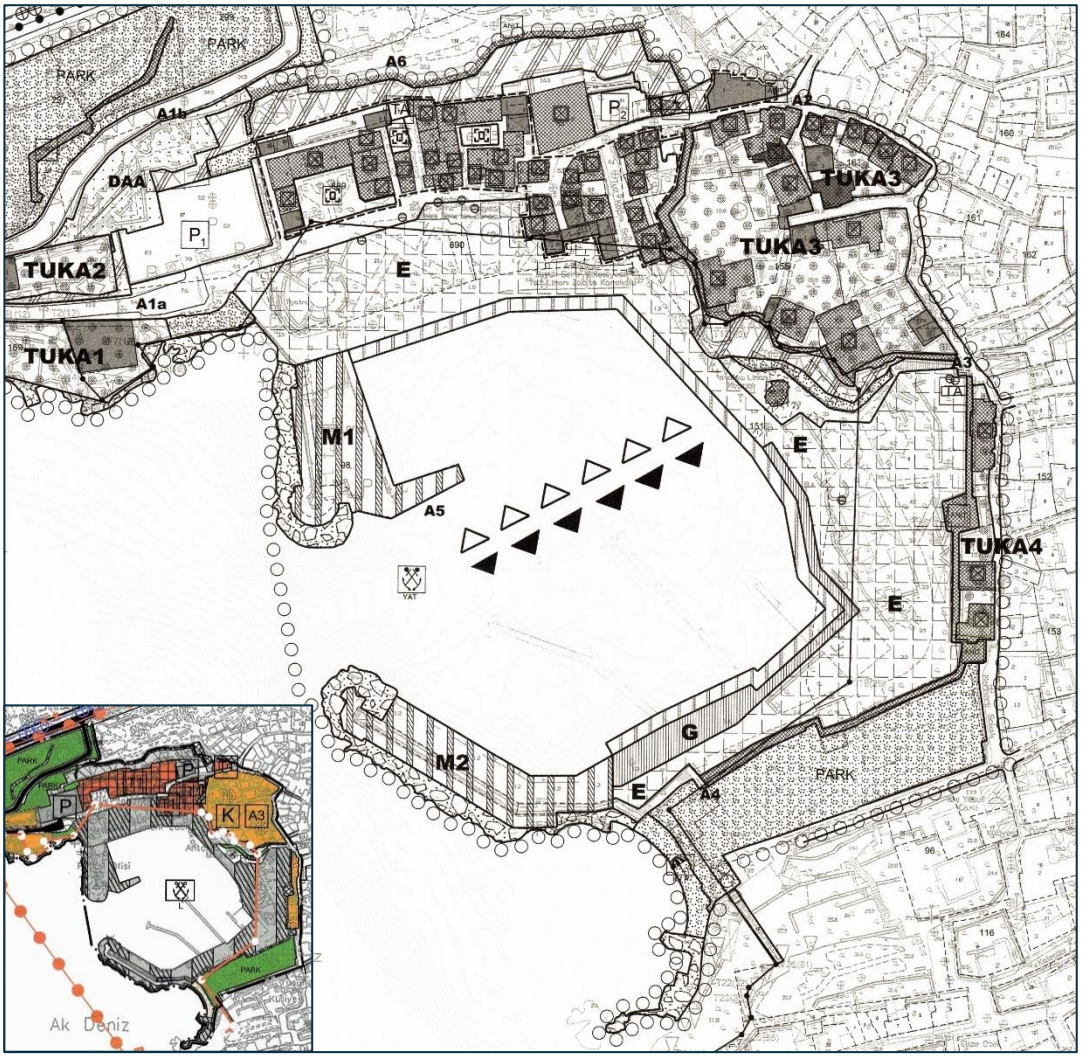


Figure 3.20. 2016 Yacht Harbor Development Plan. Retrieved from Antalya Büyükşehir Belediyesi İmar ve Şehircilik Dairesi Başkanliği.

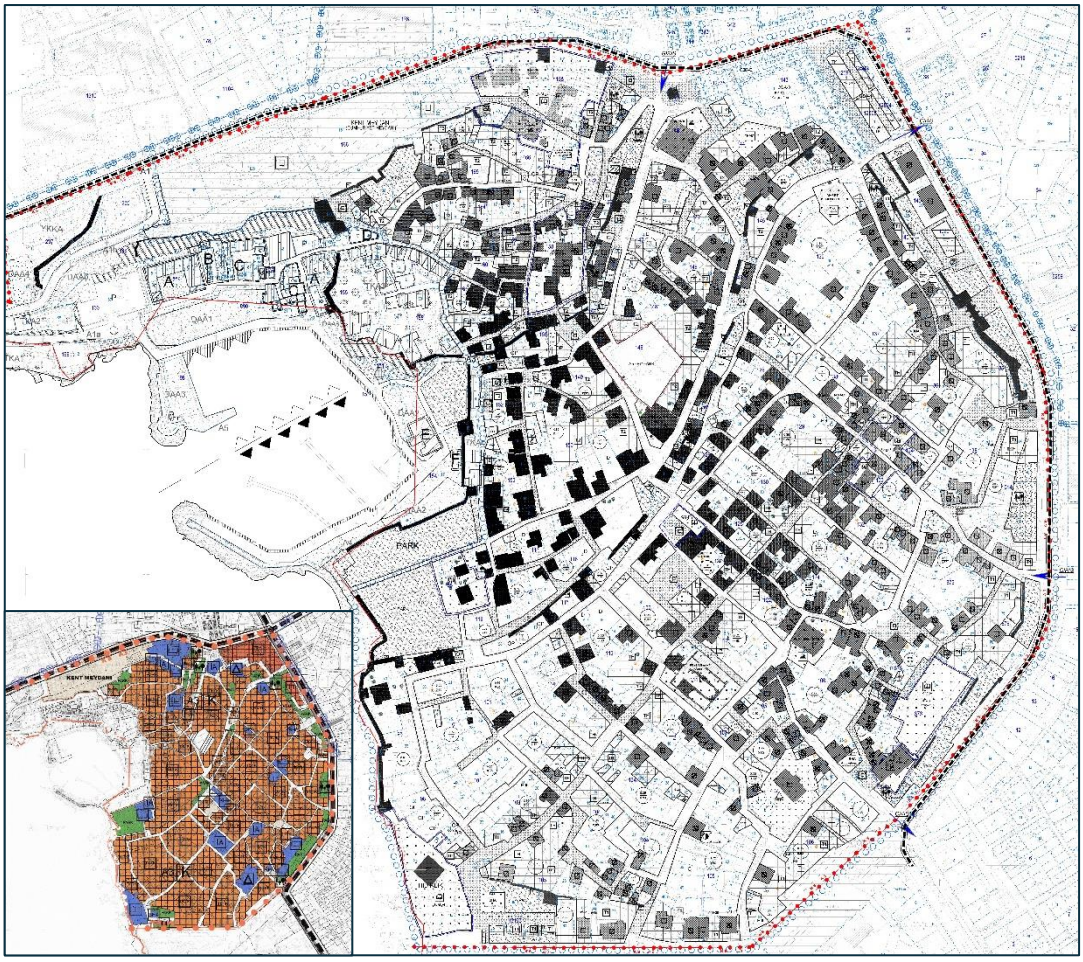


Figure 3.21. 2018 Antalya Kaleiçi Conservation Development Plan Revision. Retrieved from Antalya Büyükşehir Belediyesi İmar ve Şehircilik Dairesi Başkanliği.

Until this day there are constant conservation and rehabilitation projects that take place in between touristic seasons with most of them being aimed at conserving the historic image of Kaleiçi, beautification of the area, commercial gain, and introducing further quality of life improvements for visitors. In 2018 another revision of the Kaleiçi Conservation Development Plan was done that further adjusted lot usage in the area in accordance with the ever-growing touristic function in the area. Furthermore, an update to the building and lot decisions was introduced that mainly organized the approaches to heritage and modern buildings. The plan also heralded with it multiple building scale conservation projects, some that are still ongoing.

Another large-scale project is the ongoing renovation of Hıdırlık Tower and its surrounding open space. It started to be implemented at the end of 2023 after the end of the summer touristic period and aims at introducing an ease of accessibility to Hıdırlık Tower while better defining the open space around it. Other reoccurring projects usually focus on the rehabilitation of a single heritage building to transform its function into a more touristic friendly and commercially beneficial one. This parallelism in goals, financially charged from one end while historically and culturally dependent from another, gives way to one terminus over the other; with the touristically charged financial gain set by the stakeholders overwhelmingly dominant in determining the past, present, and future of conservation activities in the Kaleiçi.

Figure 3.22. The before and during of the Conservation and Development Project of Hidirlik Tower. Taken by the Author on 23/09/2023 and 07/02/2024.

3.1.4. Impact of the Planning Period and Tourism on Antalya, Kaleiçi

Kaleiçi has three distinct modern periods in which the changes to its urban fabric can be discerned and studied. These periods are conveyed by Argin (2012) and adjusted by the author as first, the period “before 1970” which showcased two world wars, the change of the governing regime and the state, and socio-political, cultural, and demographic changes that affected the physical environment in the walled city. Secondly, there was the phase “between 1970 and 2000”, which was portrayed as the planning period featuring multiple Urban Development and Conservation Plans, and the execution of these projects as they affected the physical environment and hence altering the sociocultural and economic values in the region. Lastly there is the “present time” which contains all the recent progression done, equipped with the acquired knowledge of the effect of previous projects on Kaleiçi. These later changes focused on the aspects that were seen as effective tools in developing Kaleiçi, especially tourism and its effect on the cultural and social sustainability in the area.

Perceived from the conservation and development plans of Anatalya, Kaleiçi, charged by the economic and political state of Turkey post both World Wars, and affected by the needs and visions of stakeholders, Kaleiçi channeled a wave of tourism that changed the area on a macro scale through the physical, social, cultural, and economic dimensions. Once acting as a harbor coastal city, it evolved into the touristic hub seen and experienced today.

Major changes began to take hold after the end of World War 1 and the birth of the Turkish Republic. The population exchange that took place after the collapse of the Ottoman Empire impacted the demographic balance of Antalya especially pertaining to the Greek populace in the area. This category of residents held a large share of what were considered expert craftsmen in traditional timber architecture and construction; hence they were responsible for building and maintaining the residential buildings throughout Kaleiçi.

With this loss in knowledge and repair know-hows the buildings gradually fell into disrepair and the living conditions deteriorated; people, whom a large proportion consisted of newly relocated Turkish refuges from Greece (Argin, 2012), couldn't upkeep their residential houses which affected their quality of life and status in the public eye. The population exchange nevertheless brought a massive influx of new inhabitants into the area.

Figure 3.23. Photographs of Antalya between the two World Wars. (A) Fener Street 1920, (B) Gazi Boulevard 1935, (C) School Festival 1930, (D) Uzun Street 1924. Retrieved by Author on February 7th, 2024, from Suna & İnan Kıraç Kaleiçi Museum Collection.

With the economic and financial problems that plagued Turkey and most of the world during and after World War 2, the problems infesting the infrastructure of the area couldn't be handled efficiently. During the immediate end of the war, two paths for Antalya's future moved in parallel. One pertained to the industrial boom in the country; Antalya, a coastal city, once depending on sea-based commerce and agriculture changed to industrialization-based development.

Antalya hosted a new array of public factories that invited a larger immigration stream of workers into the city. It also invited the construction of new buildings in the historical area which directly impacted the traditional nature of the existing fabric. To some degree these new buildings, either separate or as an addition to the existing older buildings, were erected out of necessity to acclimate the area to the standards of modern livelihood at the time and meet the occupants' needs. These changes further decreased sanitary and health conditions within Kaleiçi, caused a change to the social life and economic wellbeing in the area, and negatively impacted the security of the walled city and its residents' safety. Coupled with the diminished significance of the old harbor due to the established new commercial port, people started to move out of Kaleiçi as permanent residents. Consequently, they were replaced by temporary tenants consisting of workers attracted by the low rental prices in Kaleiçi due to the subpar living and building conditions.

On the other hand, the second route that affected Antalya's future were the touristic views and goals that the stakeholders had for the area. It was born out of a need for financial gain by capitalizing on Kaleiçi's touristic potential. Its coastal location on the Mediterranean, biodiverse natural environment, weather, history, and built heritage were all factors that persuaded the push of touristic agendas. Hence the first steps taken were directed towards organizing the area and refurbishing the infrastructure. Movements such as the "Beautification of Antalya Association" specified previously was one of the first governmental efforts to address the problems of the area and work towards solving them. Parks were built to elevate the social life and render the area more presentable, with the addition of new public bazaars and shops. The main roads were maintained, revamped, and accentuated with main governmental and commercial buildings erected on these main streets facing the walls to establish Kaleiçi's boundaries. (Argin, 2012 & Başok, 2016) With the registration and renovation of some historical monuments in Kaleiçi's during the mid-1950's, Antalya started to gain wider notoriety as a culturally rich touristic destination especially to Europeans who preferred a sun and sea type of experience with the added appeal of visiting and staying in an authentic historic walled city.

The mid-1960's witnessed the labeling of Kaleiçi as a protocol area, a first-degree tourism center at the start of the 1970's, and a conservation site a couple of years later. This illustrated from early on the double trajectories which Kaleiçi was experiencing; conservation of cultural heritage that maintain and enhance tangible and intangible sociocultural values, while advocating through the stakeholders for a purposeful touristic development of the area as a development tool. The aftermath of the second, detrimental to the goals of the first.

Demolishment of heritage buildings in Kaleiçi at that time was seen as an escalating problem, especially when it occurred by the approval of the owners. These owners caved in to the process persuaded by the unacceptable living conditions in the area and the high profit margin offered by the contractors to evacuate. Hence existing buildings were demolished, and the area was losing some of its key characteristics for the sake of erecting apartment buildings within Kaleiçi for tourists and workers. On the other hand, new apartment buildings were being built within empty lots to facilitate more modern living quarters for the increasing residents, which affected the overall image of the area and its heritage spirit with architecture that wasn't compatible with the existing fabric. (Başok, 2016)

The changing status of Kaleiçi as a protocol area slowed down new construction and demolishment of heritage residential buildings in the area but couldn't stop them completely until the declaration of the area as a conservation site, where all new constructions and renovations became prohibited. (Argin, 2012) Even though the renovations weren't considered as proper intervention to build heritage due to the absence of skilled timber construction labor, the complete obstruction of them made it excessively difficult for owners to repair damage in their abodes and elevate their living conditions. This pushed the owners away from the area towards the newly constructed quarters of Antalya, seen as more comfortable and prestigious.

The main push towards tourism in the area came in the form of the urban conservation and development projects in the latter half of the 1970's. Starting with the Yacht Harbor Project of 1976 that featured the use tourism fueled conservation actions. This ranged from changing the functions of the heritage buildings around the old harbor into touristic oriented ones like commercial, recreational, and services ranging from hotels, restaurants, shops, to cafes and bars. The buildings were hence restored, and changes were made to accommodate the new uses. The harbor itself got revamped and its use changed into a touristic one. This is one of the main early examples of tourism being one of the main development tools and goals for a conservation project in the area, heralded by the stakeholders that were attracted by the commercial potential of Kaleiçi.

One of the most notable outcomes of this process is the prioritization of the beautification of the area and the buildings within over a coherent conservation approach that encompasses the values portrayed by them. From a social point of view, with this boom in tourism, it was seen that the residents of the area started to prioritize working in the touristic services industry over the traditional agricultural one known throughout the area due to the increasing flow of tourists and its respective income. (Argin, 2012) This logically created a cascading effect down the line pertaining to the sociocultural activity of the residents and their relation and perception towards their city.

The increase in tourism created some physical, social, and cultural issues in the area which wasn't yet ready to host a large flow of people. A shortage in bed capacities within Kaleiçi was noticed hence people started to rent out their houses to tourists at an alarmingly increased rate for financial gain. Furthermore, safety had become an issue due to the unorganized and unfiltered mixing of people from different cultures that came to the walled city for an array of purposes. This prompted the permanent residents of Kaleiçi to continue their migration outwards to the modern urban areas of Antalya.

With the increased loss of its original residents Kaleiçi faced a detrimental challenge to its intangible cultural values and authentic essence and experiences; residents are a conduit for the intangible values in the area through their actions and folklore and as informants about the history and heritage of the buildings they live in, their loss acted as a missing link for the complete authentic identity of the walled city still felt to this day.

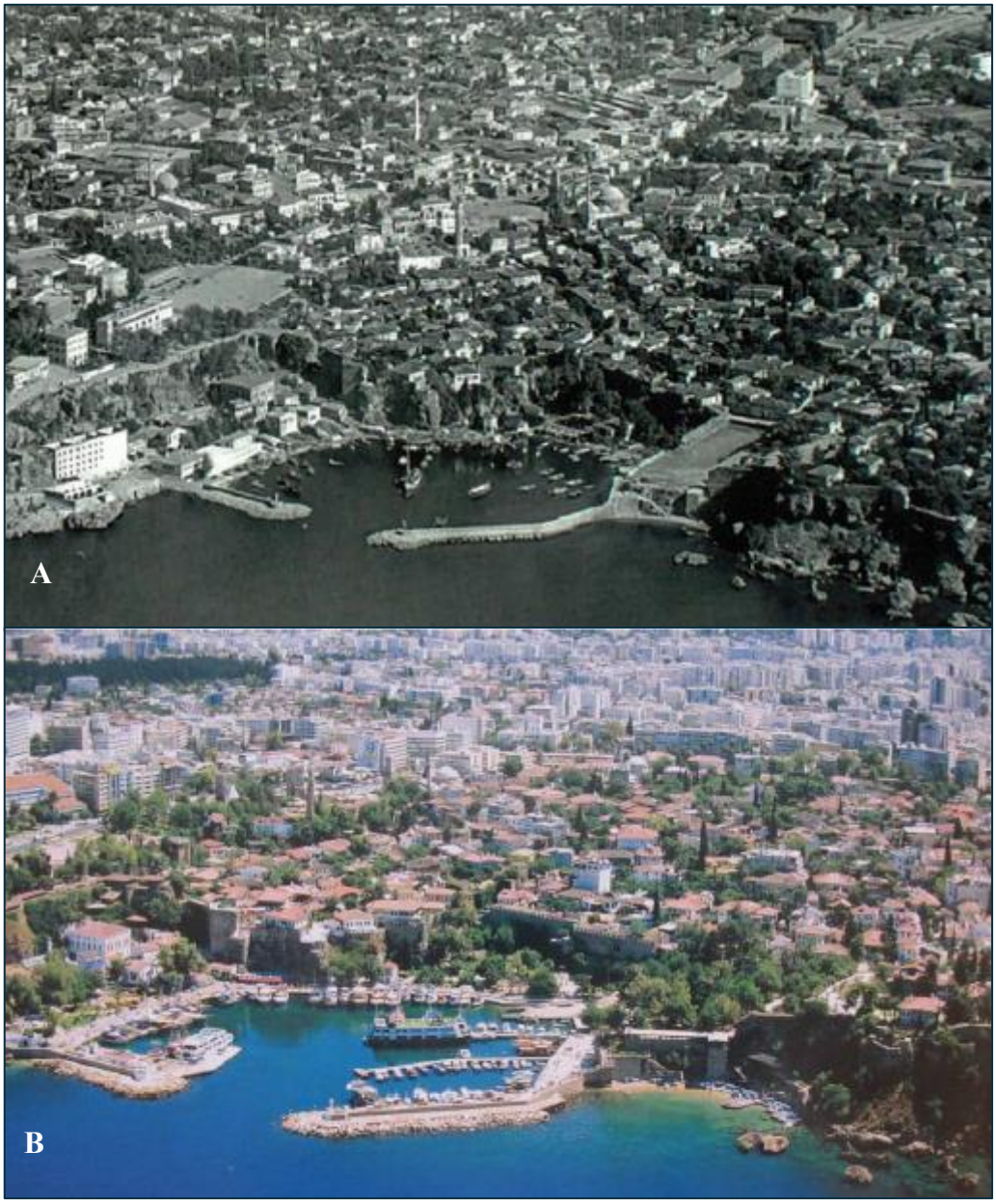


Figure 3.24. (A & B) Arial Photos of Kaleiçi in the 1960's and the 1990's respectively. Retrieved from Argin, 2012; based on Dündar's personal archive and AKESO (Antalya Kuyumcular Esnaf ve Sanatkarlar Odası, 1991 respectively.

Soon after, the Kaleiçi Conservation Development Plan of 1979 was introduced to solve some of the problems presented in the area. It took three distinct routes to tackle the multifaceted nature of Kaleiçi at that time. The first approach pertained to the existing residents and the complications of living permanently within the old city walls. These difficulties ranged from the subpar hygiene of the area and its related outdated infrastructure, the loss in the quality of living due to the poor conditions of the heritage residential buildings and complete stoppage of restoration activities prior to this plan, the unmet standards of modern living styles on a building an urban scale, and the safety and social justice concerns within Kaleiçi. The preferred outcomes of tackling these issues were to decrease the number of outwards migration from Kaleiçi and hinder deposition of heritage assets and lots for economic gain; such that the area could appropriately accommodate and preserve its original residents with all the social, cultural, and economic values they represent and possess. The phrase "*profound social preserving*" was used by Tankut (1979) to explain the multi-dimensional aspects that need to be considered while conserving the area to encompass the all the major needs of the residents on social, physical, and economic scales. (Cited in Argin, 2012, p. 82)

The second route was concerned for the proper conservation of cultural heritage and the protection of Kaleiçi's physical, social, and cultural values, all while creating a modern amenities-friendly historical center that is lively and personal to the permanent residents. Proper restoration or rehabilitation of heritage buildings was needed for such an action, hence the creation of regulations and guidelines for preservation activities in Kaleiçi was needed.

The third development path on the other hand was fixated on the touristic opportunities in the area and its economic benefits within a historic center. Hence it was deemed important to refurbish the urban environment and integrate touristic functions in a more organized manner within. (Argin, 2012 & Başok, 2016)

According to Madran (2001 & 2008; cited in Argin, 2012 & Başok, 2016), the 1979 Conservation Development Plan aimed to balance the presence of tourism as an economic engine for the area while strengthening the roots of social and cultural values presented through the permanent residents, which have been endangered and dwindling in the years prior to the development plan. Hence the implementation divided the area into zones, each with its specific function: Residential, Accommodation, Commercial, and Green Areas[5], to limit the uncontrollable growth of touristic development within Kaleiçi and assign uses to buildings and empty lots in certain zones. Heritage buildings were distributed into categories according to their conservation decisions, function changes were looked positively upon in specific areas as a conservation drive that aids touristic endeavors, and house lodging typology was accepted throughout Kaleiçi under the pretense of the "Home Based lodging-Houseship Legislation". (Başok, 2016)

Certain natural features were also included in the protection decisions, new three-story building construction were encouraged in empty lots to enhance tourism activities, street furniture and pavements were refurbished, and a revamped transportation and circulation plan was implemented to organize the vehicular and pedestrian paths within Kaleiçi.

The Conservation Development Plan got approved but the outcome wasn't compatible with the projected expectations. According to Gül (2006) and Uyar (2007) mentioned in Argin (2012), the first difficulties occurred after modifying the proposal into an actual development plan by the Ministry of Development and Housing which resulted in discrepancies regarding some lots and their respective decisions. Expropriation of lots in serve of the proposed projects couldn't be successfully realized on the expected scale, hence implementations couldn't be carried out according to plans.

[5] Refer to Figure 00, under subsection 3.1.3. of this thesis, titled: Planning and Conservation History of Antalya, Kaleiçi.

Furthermore, as a result of the decisions, Kaleiçi got distributed into two zones, a First degree and a Second degree Archeological, Historical, and Natural sites which made it difficult to regard the area as one entity with a uniform set of decisions. The different approaches and restrictions laid upon First- and Second-degree sites halted any substantial development or new constructions within the area and made its integration with the surrounding strenuous.

Figure 3.25. Refurbishment of an existing open public space. Taken by the Author.

The projected expansion of touristic use in the area could not be contained and the reuse of heritage residential buildings as house pension style hotels spread through the area outside of the specified accommodation zone, mainly due to the absence of limiters on the house pension “guest house” typology. This touristic growth caused an uplift in real estate prices through Kaleiçi and caused residents to move out and utilize their houses as guest houses for their economic gain, and the ones that couldn’t afford the transformation proceeded to sell their houses and profit of that price increase. Hence the idea of using tourism as a drive for the area’s economy to conserve the social and physical values within wasn’t successful. The residents were more alienated from the area due to the influx of tourists and the promise of financial gain which caused a huge shift in the demographic state of Kaleiçi. Thus, social and cultural changes occurred in the area following the plan decision opposed to the initial main goals stated. (Argin, 2012 & Başok, 2016)

Figure 3.26. Refurbishment Hadrian's Gate as a part of the Urban Conservation Plan. Taken by the Author.

Concerns following the 1979 plan were in order and hence the 1992 Revision plan was prepared to tackle the problems that stemmed from the outcome of the first plan. As presented in Uluç (2014) based on Öztekin (2010), due to the inconsistencies that occurred between the plan decisions and their respective lot decisions, as in between the former and the conservation regulations set by the High Council of the Historic Real Estates, Artifacts, and Monuments projects were halted before they could reach an advanced stage. Argin (2012) quotes the 1992 Conservation Revision Plan Report and specifies that post the 1979 Plan, an issue pertaining to the demolishment the reconstruction of some heritage buildings in either the same or different style arose, which needed to be stopped to preserve the authenticity and values of the buildings and area. Secondly, the emphasis on tourism in the first plan and the open support for house pensions gave way to bigger pension projects which contradicted with the initial goal of rooting the presence of permanent residents in the area as they either sold their properties or transformed them to pensions. Furthermore, in the span of a decade since the first development plan, updated demands and needs were observed in Kaleiçi, especially concerning transportation, conservation guidelines, and project implementations.

Hence in the 1992 Plan it was deemed that tourism had taken a front development seat and needed to be organized further to establish a balanced residential presence in the area. Additionally, the term "house pension" was more defined into different subcategories such as: hotel, pension, and house pension; in an attempt to control the function change of heritage buildings within the area. Kaleiçi was furthermore unified under the mantel of "Unified and Improved Conservation Site" (*Birleştirilmiş ve Geliştirilmiş Sit Alanı*) and as such a Third-degree archeological site, instead of the prior First- and Second-degree archeological sites split; along with the decision that every project in the area would be planned, designed, and assigned a function separate from others under the supervision of the Antalya Conservation Council. (Madran, 2008; cited in Argin, 2012).

Heritage buildings were nevertheless permitted to host an array of touristic and commercial functions according to the sub area they are situated in due to tourism being the main driving force for conservation, while residential uses were encouraged both in heritage and new buildings, the later which had a strict ban from being used for commercial purposes. From a regulation point of view, restrictions have been set on the form and elements of new buildings, opposed to the ones built post the 1979 Plan, to make them compatible with the spirit of the area, while the repair regulations of registered buildings were rehashed and made clearer and more detailed. On a site scale, the pedestrian and vehicular roads were redefined and separated to created vehicular free and semi vehicular free zones inside of Kaleiçi, more archeological locations were excavated and protected, open commercial areas were initiated, and green areas classified according to their usage. (Başok, 2016) The plan nevertheless couldn't stop the touristic growth in the area, which by that time had become a main element of the area's identity and its development, especially the commercial aspect of it which was seen as a finance vein for the area's growth after the loss of its historic port's function. It could be seen that touristic facilities were not held within a certain area but spread all throughout Kaleiçi.

The plans were able to solve some underlying problems in the area such as the infrastructure, beautification of the area, street furniture refurbishment, create a push for conservation fueled by tourism, invite a steady financial and economic growth via tourism, and establish a multifunctional place with a myriad of open and closed accessible spaces for different activities that invite a financial income. Saving the social structure, which was one of the main goals of the plans, wasn't successful and hence social values continued to deteriorate with the demographic changes as the touristic aspects became more widespread and ideologically central. Moreover, the urban fabric saw a large change that couldn't be stopped or rectified from previous executions, especially concerning building density within a zone, their proximity to each other, and their function. (Başok, 2016)

On the other hand, the street networks width stayed relatively the same form and dimension wise. The northern section of Kaleiçi featuring the organic winding passageways that are relatively narrow as they are surrounded by closely situated houses and their garden walls, while the southern part features the historical grid pattern still perceivable at present. (Argin, 2012)

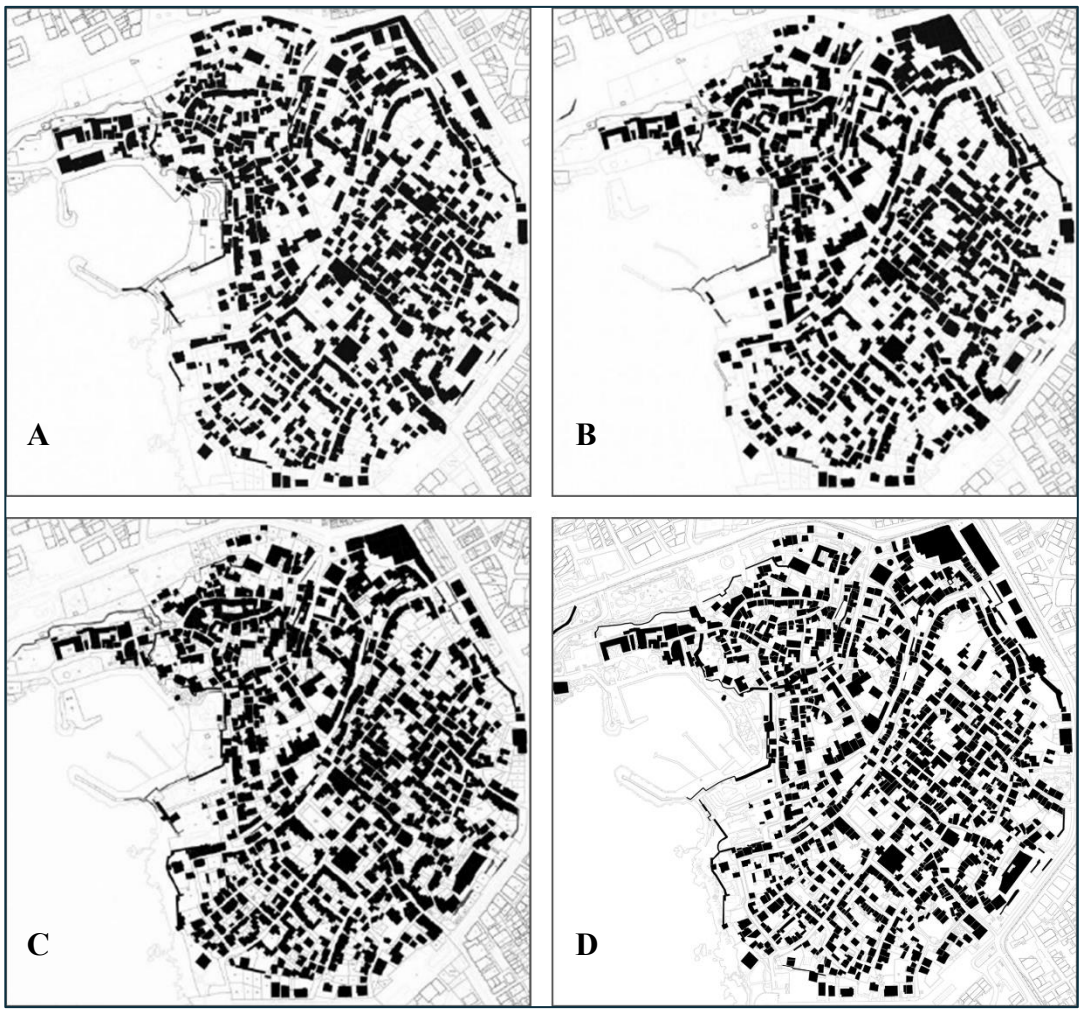


Figure 3.27. Solid and Void Analysis of Kaleiçi in the years (A) 1979, (B) 2003, (C) 2012, and (D) 2023. A, B, and C are retrieved from Argin (2012); D is prepared by the author.

According to Başok (2016) in 1979 residential buildings in Kaleiçi constituted 76 % of the total buildings with 20 % being allocated to commercial uses. This changed dramatically when the functions were studied in 2013, where the number of residential buildings dropped to 23 % and the commercial and accommodation increased to 40 %. This changed yet again in 2021, according to Aygün & Düzgün (2021) which showed that around 54.1 % of the heritage buildings had a kind of accommodation function, 11.5 % were commercial, and 18.4 % were residential.

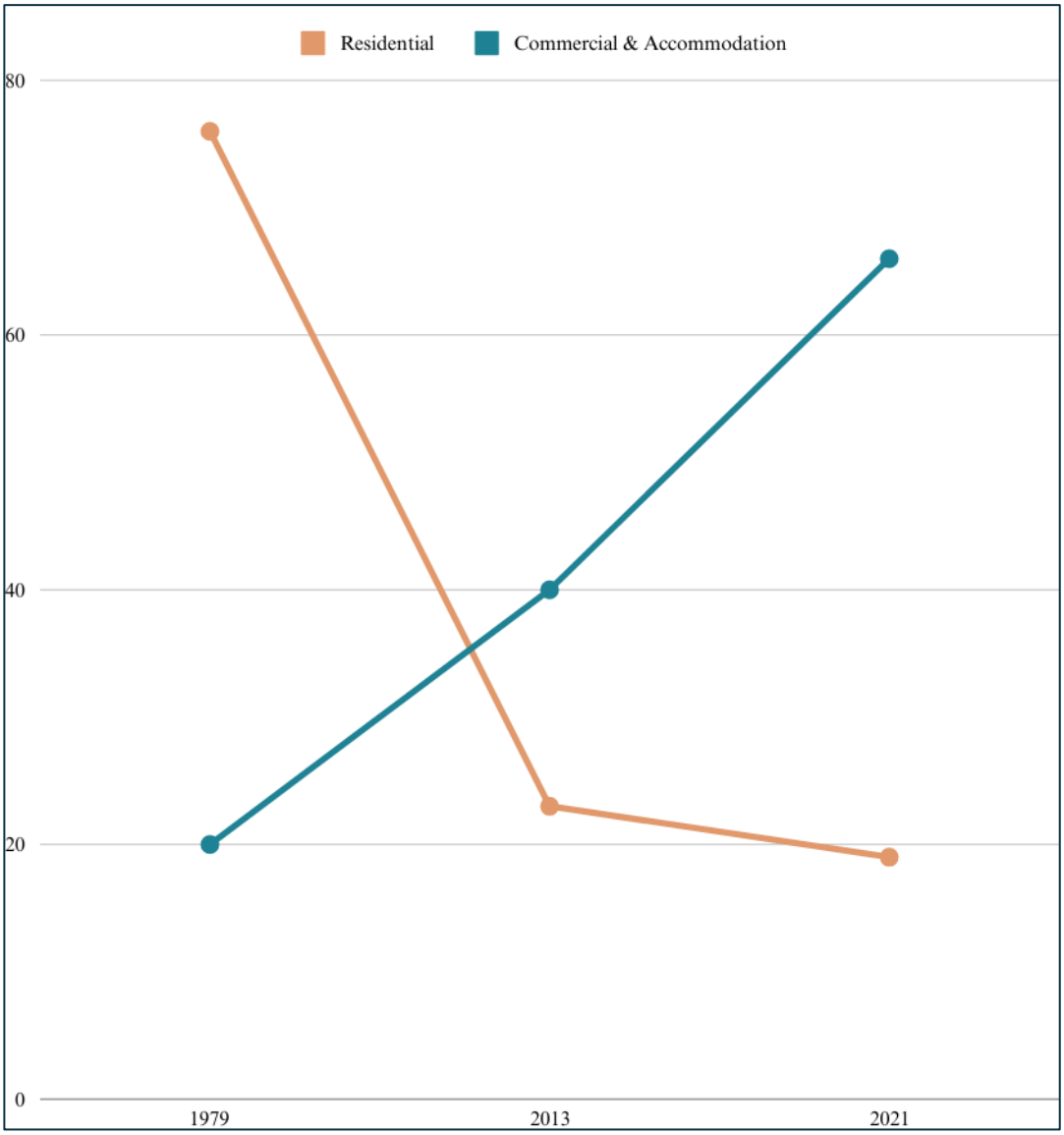


Figure 3.28. Illustration of the building's typology percentage change in Kaleiçi. Prepared by the Author.

This demographic and social change is also seen in Kaleiçi's population surveys, where the population was around 5000 in 1979 at the time of the first development plan, which decreased to 3588 in 1990, 2096 in the year 2000 according to TÜİK[6] data sets, and to 898 in 2015. The number of residents in Kaleiçi decreased yet again to 779 in 2023 according to the latest TÜİK data retrieved from the Antalya Muratpaşa Belediyesi Population Information website[7]. As stated in Başok (2016), the area lost major parts of its texture and functional structure post the 1979 and 1992 plans, compared to what was documented prior to their implementation.

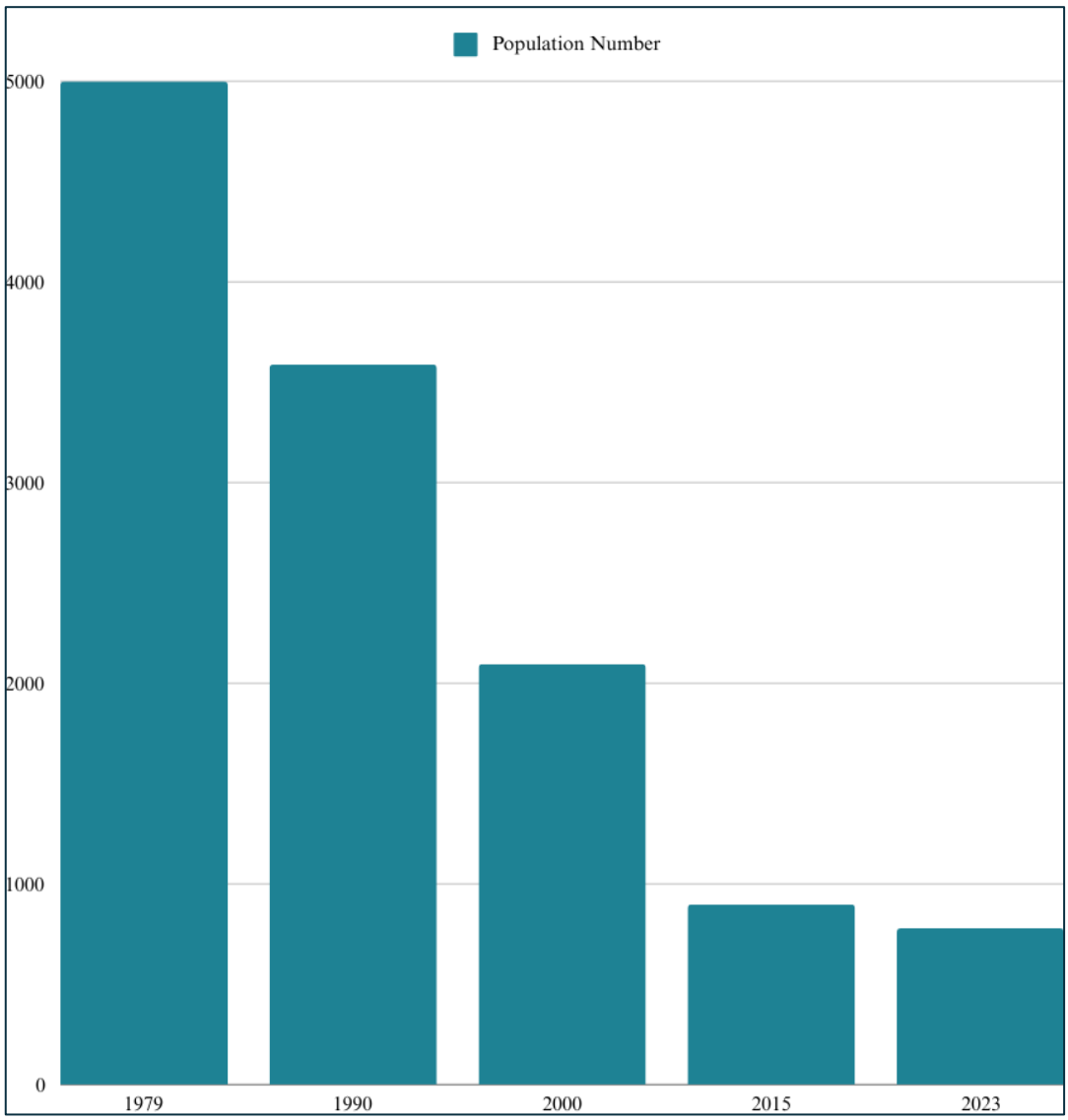


Figure 3.29. Illustration of the population number in Kaleiçi. Prepared by the Author.

[6] *Türkiye İstatistik Kurumu: Turkish Statistical Institute*
[7] https://muratpasa-bld.gov.tr/icerik/nufus-bilgileri

This clearly illustrates the loss of permanent residents and their respective residential buildings across the years as tourism became more prominent and decisions were more oriented towards visitors than locals, which affected the physical environment on an urban scale and changed the social and cultural values in the area. This change is still clearly perceived in Kaleiçi; with all the touristic fueled interventions and projects, it could be said that the Conservation of Kaleiçi Urban Site Area had a mixed outcome of successes and failures. On one end the main features of the historic urban landscape were preserved, while on the other there was a complete loss of social sustainability and structure, as well as changes and additions to the physical environment and its related altered values in an unsuccessful attempt to balance touristic utilization with sustainable conservation of cultural heritage.

3.2. Heritage Residential Buildings of Antalya, Kaleiçi

As specified in Chapter 1 Section 3.3. of this thesis, one of the criterion for choosing Antalya, Kaleiçi as the site study is its Mediterranean multi-cultural nature, which could be translated into various visible architectural styles and plan typologies. The area hence offers a sufficient range of buildings that can be thoroughly examined per the researcher's needs. This study focuses on registered late Ottoman residential buildings displaying a floor plan with an inner or central sofa as marked in the 1979 development study and conserved as an accommodation type establishment.

3.2.1. Characteristics of the Antalya Residential Building

Given the historical nature of Antalya exhibited in Chapter 3 Section 1 of this thesis and through the thorough site survey done in Kaleiçi and its residential heritage inner sofa buildings, glaring physical features were accentuated that defined the character of these buildings and the lifestyle that took place in and around them.

The physical characteristics are examined through five categories that aggregate a holistic profile of these heritage residential buildings, and are as such: **Lot, Mass, Structure, Plan, and Façade.**

The **lot** section delves into the situation of the building within the lot, connection between the building and its courtyard, building and the street, courtyard and the street, and the building with adjacent structures. In addition, it includes the courtyard, which is discussed including its function and elements, pertains to the conjoined open space within the lot seen more as garden and heavily featured in this region. The **mass** relates to the form of the building, number of floors, and any change in the mass configuration. The **structure** relates to the materials, structural elements, and construction methods. The analysis of **the plan** brings forth an understanding of the rooms and the spaces, function, circulation, and hierarchy of spaces within the lot and building. The plan also includes the architectural elements inside the spaces that are featured according to their shape, function, and location. The **façade** is analyzed in view of its architectural design order, materials, architectural features, and function.

On one hand, the historical records of Antalya, Kaleiçi present an impression of the past lifestyle around the heritage residential buildings in the area; on the other, the analysis of the physical characteristics of a building decodes the means by which concepts, beliefs, lifestyle, traditions, and all other intangible heritage is synthesized into solid, tangible, and distinct elements. Hence through records and analysis, the physical and social values of heritage residential buildings can be concluded to a degree that allows these aspects to be quantified and discussed decades after these buildings seized to host their original intended function and underwent changes to their physical features.

Ottoman residential building architecture encompasses an array of typologies that span a wide stretch of land of what was known as the Ottoman Empire. Among these different interpretation of houses, it is observed that Mediterranean coastal areas and some Levantine cities, previously under Ottoman jurisdiction, feature conspicuous similarities pertaining to their heritage residential buildings and hence can be grouped within one typology.

The similarities featured in these areas regarding the lot, mass, plan, structure, and facades are a result of a unification process that is mentioned by Cerasi (1998) where a sense of cultural syncretism evolved throughout the Ottoman ruled Mediterranean. These areas, Antalya included, showcased a fused sense of concept, workmanship, beliefs, approaches to design, and to some degree lifestyle that synthesized a homogenous attitude towards implementing needs into lived-in residential spaces.

Aided by their status as trade centers and their interconnected routes, these cities witnessed an influx of experienced builders that transmitted building techniques and ideologies along, which by the end of the 19th century led to the consolidation of style witnessed in these areas. It evolved slowly and seamlessly from unique interpretations of living quarters into a refined prototype that can fit seamlessly into a Mediterranean or Levantine multiethnic setting.

Thus, within the Ottoman borders communities featuring similar cultural properties manifest homogenous physical characteristics pertaining to their residential buildings and urban fabric that even exceed those of nearer neighboring areas that convey different cultural quality. This could be especially observed in cities with comparable urban morphologies and types, to give an instance commerce urban areas have more in common with each other on a building physical dimension than with neighboring rural towns; the further you offset from central cities and their main commercial paths the more prominent local variations of Ottoman residential buildings are. (Cerasi, 1998)

Quoting from Cerasi (1998): "*To be coherent, those buildings would have to have a common historical background and a common set of factors giving shape to their physical form.*" Which is the case for the heritage residential buildings in the coastal walled city of Antalya, Kaleiçi.

The first physical form factor analyzed is the lot, starting with the basis of the heritage residential building within the lot itself. Based on site surveys and reinforced by Erarslan (2020), the residential buildings are oriented towards the Southeast – Northwest axis, with the main entrance and *sofa* with its projection mainly existing on this axis. Some buildings can be seen oriented towards the Southwest – Northeast axis with the main entrance located along that direction; however, they tend to feature either additional sofa-like projections or windows along their Southeastern façade. This distinct orientation is selected to maximize the sunlight exposure during winter especially through the Southeastern oriented *sofa*, and to funnel in the Antalya prominent North and Northwestern winds from the sea into the house for better cooling and ventilation during the summer.

Figure 3.30. Photograph of the building and lot relationship in Building D. Taken by the Author.

The houses are situated at the edge or the corner of the lot so that either one, two, or if the lot is small three sides are connected to the surrounding streets; one or two roads being in direct contact with the buildings' sides are the most observed. (Cerasi, 1998) Main building entrance doors open directly to the streets with the projections coming off the first floor creating a visual semi open buffer zone between the exterior and interior and marking a perceivable building-related section of the street. (Erarslan, 2020; and Ulusoy & Üstün, 2019)

Figure 3.31. Photograph of the main elevation of Building B. Taken by the Author.

Almost every residential building has its own courtyard which acts more like an enclosed private garden specifically to serve the residents of that house. Completely isolated visually from the public street via a high stone wall all around the lot's borders, except for the sight of the trees within reaching out to the common narrow space beyond the wall, (Erarslan, 2020) creating bits of shade throughout the street. These walls enforce the privacy required by the courtyards, (Ulusoy & Üstün, 2019) only accessible through a double hinged door through a side road. (Erarslan, 2020)

With respect to the building, the courtyard is located at the back of the house or to the side in case the building is situated on the corner of the lot. It has a direct connection to the building through the ground floor and in some cases has a main vertical access route to the upper floor of the house which is the private section of this Ottoman house typology. Hence the courtyard is integrated in a way to be accessible by everyone in the house while preserving its private quality away from the more publicly accessible open sections of the house. Depending on the lot size the courtyard's area changes, but throughout most cases the solid-void ratio ranges to a minimum of 50% - 50% of the total available lot size in favor of the courtyard; with the open space usually having the bigger portion which emphasizes the importance of this element in the occupant's daily life.

Figure 3.32. Photograph of the lot wall of Building B. Taken by the Author.

Regarding the relationship between a heritage residential building and others in its vicinity, there are two types of connections visible in Kaleiçi. Either a building is completely disconnected from others around it or attached to a cluster from the sides in one or both directions. A prominent feature of this community is its translation of one of its religious and ethnics beliefs into physical characteristics in their residential buildings.

Such as the Islamic maxim of “"No Harm to Oneself and Not Harmful to Others”, which in this case propagates a duty to respect the neighboring private spaces and abstain from establishing openings that might limit others from using their courtyards freely and privately. This mutual understanding rang through the entire community even with its multiethnic demography via the gradual unity premise discussed previously.

The courtyard played an integral part in the daily life of Antalya’s occupants. In a Mediterranean port city, green open private spaces were a necessity especially for the major Muslim population in the area. Accessible through a large double hinged door via a side road, the courtyard acted as the independent house entrance towards the private area. Where the main front entrance primarily welcomed visitors, the courtyard entrance was meant for all other purposes related to the *haremlik* and service areas.

Figure 3.33. Photograph of the back courtyard entrance of Building B. Taken by the Author.

The courtyard door has an eave on top shielding pedestrians underneath from the weather elements. (Ulusoy & Üstün, 2019) Household daily activities extended to the courtyard as it became a main element in fulfilling tasks such as laundry, providing a recreational zone for the household, and a garden to grow essential crops and local produce like orange trees. In Antalya every courtyard features a cistern for water utilization whether it's drinking, cleaning, or irrigation; it can also be used for cooling vegetables and fruits. (Erarslan, 2020; & Ulusoy & Üstün, 2019)

Small service buildings could be found in the courtyard attached to the garden walls providing supplementary functions to the buildings such as woodsheds, warehouses, grain storages, barns, stables, carriage garages, and even small toilets. The walls of the courtyard are mainly constructed using rough cut masonry with small rubble and wood used as infill and were plastered and occasionally painted. (Güçhan, 2017; & Ulusoy & Üstün, 2019)

Figure 3.34. Photograph of the cistern within the courtyard of Building B. Taken by the Author.

The form of the ottoman residential building is a rectangular cuboid with a pitched roof, where the base ranges between a square to a short rectangle. Some projections, motifs, balcony cantilevers, or minor mass additions could be found around the edges of the buildings without detracting from the dominant symmetrical form of the main building. The main residential building is made up of a ground floor, a mezzanine floor that covers a minor portion of the building area, usually located above service zones, and a first floor covered with a pitched roof. In some rare cases a second floor consisting of one room and a terrace could be found.

Figure 3.35. Photograph of the outside of Building A showcasing its form. Taken by the Author.

The residential buildings of Antalya, Kaleiçi are categorized as traditional Ottoman *hımış* houses featuring a hybrid construction system consisting of a masonry base for the continuous-type foundation and the ground floor, a timber frame across the upper floors, and a timber pitched roof. (Güçhan, 2017) A feature of the Kaleiçi houses is the use of compounded stone and bricks throughout the masonry base. Bricks are especially used with rough cut stone that are later plastered over. Timber lintels are regularly laid horizontally to strengthen the walls against earthquakes, uniform the masonry courses, and harmonize the load distribution from the timber floor beams to the masonry walls. (Erarslan, 2020; & Güçhan, 2017)

Occasionally, the masonry mixture of bricks and rough-cut stones bonded together with natural mortar is used throughout the building including the first floor, and in such cases rows of double layered bricks are established every 50 to 90 cm. Fine cut stones are prominent at the corners of the buildings in an alternate quoin style, also used for establishing window openings and in accentuating exterior door openings. (Erarslan, 2020) Tightly fit fine cut stones free of bricks are used along main elevations containing the house entrance and overlooking the main street. Hence despite the unity in style perceived in the area, there is a level of construction flexibility related to the financial capability of the house's original patron.

The basic building style that consists of a plastered rough-cut stone and brick bottom supporting a plastered timber upper floor, can be modified by the usage of fine cut stone along the main elevations and corners or through the usage of masonry throughout the entire building façade while preserving its usual use, interior distribution, and hierarchy of spaces.

Concerning the structure, masonry is used at every location where the building touches the ground (Güçhan, 2017); bigger and more regular shaped stones are observed closer to the foundation where a compound brick and rough-cut stone system is used. The masonry foundation is laid according to the ground building form, rising until the end of the ground floor featuring the mentioned timber lintels for reinforcement. (Güçhan, 2017) Similar to other Ottoman residential buildings the foundations in this area tend to be shallow, with the absence of any major sublevel cellars or floors. (Cerasi, 1998)

The first-floor ground and wall beams are fixed on the masonry walls with the aid of the horizontal timber plates; the beams of planned timber projections are placed simultaneously in which the final protruded area of the house starts taking shape. Nails are typically used to join posts and beams instead of joints for their flexibility in case of earthquakes. (Erarslan, 2020)

Figure 3.36. Photograph of the dukkan (shop) mass of Building B. Taken by the Author.

The main wall posts and studs are erected and then clamped together in place with the use of top timber plates. The location of the windows is set using studs, timber sills, and timber headers, further corner frames are installed with their respective queen posts and reinforced with bracings for additional support. (Güçhan, 2017) Infill is used between the timber constructs which mainly consists of small stones, brick, adobe, and some wood infill.

In Antalya a *bağdadi* covering of thin timber slats is used on the interior and exterior, nailed to the timber structure, as a plaster base layer. The gaps between the lats are then filled with smaller wooden elements and rubble. This inclusion is believed to have reinforced the hold of the plaster on the wall ensuring extra protection from the external elements (Erarslan, 2020) In cases where the entire wall is masonry, a *bağdadi* covering would be fixed to the walls as base layer for the plaster to adhere to and then paint. (Erarslan, 2020)

Heading upwards, one of the walls of the service areas downstairs is extended towards the first floor, considered as a service wall. If it isn't present, then chimneys or brick shafts are used. Interior walls are of timber construction with lighter infill material or left hollow, similarly a *bağdadi* lathwork covers the frames which is plastered over then painted. (Erarslan, 2020) The roof is sloped across a soft pitch on fours sides, covering the plan area under it completely. (Cerasi, 1998) It is framed with timber beams nailed on top the uppermost timber plates. Frames along the ridges with the aid of king posts are installed, then girders are set which finalizes the structure. Wooden planks are set on top then covered with roof tiles. (Güçhan, 2017) After the roof is finished the outer walls are plastered as specified the interior ones are plastered and painted, and interior architectural elements are installed.

Figure 3.37. Photograph of service wall of Building C. Taken by the Author.

The Ottoman house is distributed into a public and a private sector across its two floors; the ground floor being the more public one meant for visitors (*selamlık*) and includes the main service areas, while the upper floor constitutes the private inner section of the house (*haremlık*). (Cerasi, 1998)

Staring with the ground floor, the house is accessed through the main entrance door which opens to the primary circulation space of the ground floor known as the *taşlık*. In the inner courtyard house typology, the *taşlık* and the surrounding rooms organization mirrors that of the upper floor, in which the *taşlık* is central through the area with rooms laid on both sides accessible through the main central circulation space.

The rooms closer to the main entrance are reserved for guests while service rooms such as kitchens, bathrooms, pantries, maid rooms, laundry rooms, and storages are towards the back side of the house close to the back entrance connecting the courtyard to the house. (Erarslan, 2020; & Güçhan, 2017) Guest rooms are usually a step higher in elevation than the *taşlık* to separate the spaces and invite the guests to take off their shoes before entering the space to insure cleanliness. (Ulusoy & Üstün, 2019; and Demirarslan, 2017)

The rooms around the *taşlık* are rectangular and are laid with a pair of windows facing the main street that are symmetrical across the central axis of the room; depending on whether the adjacent wall is free on the other side or shared by an attached structure, more windows would be located on that wall to aid with lighting and ventilation. Service rooms replace the large spanning windows found at the front with smaller ones located higher up, their positioning ensures natural light access and ventilation while securing the privacy of the people inside.

Some residential buildings feature an attached mass to the main one. One story high and accessible via a door from the main street, this space acts as a shop, or *dukan*, related to the house's occupants. It is longitudinal running along the building's side, occasionally featuring a back access towards the courtyard and to a side storage

room, with a roof that slopes down the short end of the structure towards a side street. The shop's roof space can additionally be utilized as a terrace for the upper rooms as observed in some extravagantly designed houses. (Erarslan, 2020)

Figure 3.38. Photograph of the interior of the ground floor in Building B. Taken by the Author.

Vertical circulation elements leading upwards to the first floor can be observed at two distinct locations. It is established that the main function of the stairs is to access the private upper section of the house which is reserved for the house occupants. Thus, it is considered as a component of the private unit; as such always visually disconnected from the semipublic domain (*selamlık*) of the ground floor, and occasionally physically and visually detached. In the first case, the stairs are accessible via the *taşlık* circulation zone through the mid space between the guest rooms adjacent to the entrance and the service spaces closer to the courtyard. This implementation results in easy accessibility from the *haremlik* to the service areas without the need to pass through the private courtyard.

The second typology features completely unlinked direct circulation between the *selamlik* and *haremlik*, evident by the accessibility to the stairs from the courtyard. Hence, the courtyard becomes a tethering zone between the first floor and the ground service areas; it is perceived that the solemn way to access the first floor is through the stairs in the courtyard, rendering the private outdoors a main element in the daily circulation and space hierarchy, while increasing the private nature of the *haremlik.* (Ulusoy & Üstün, 2019)

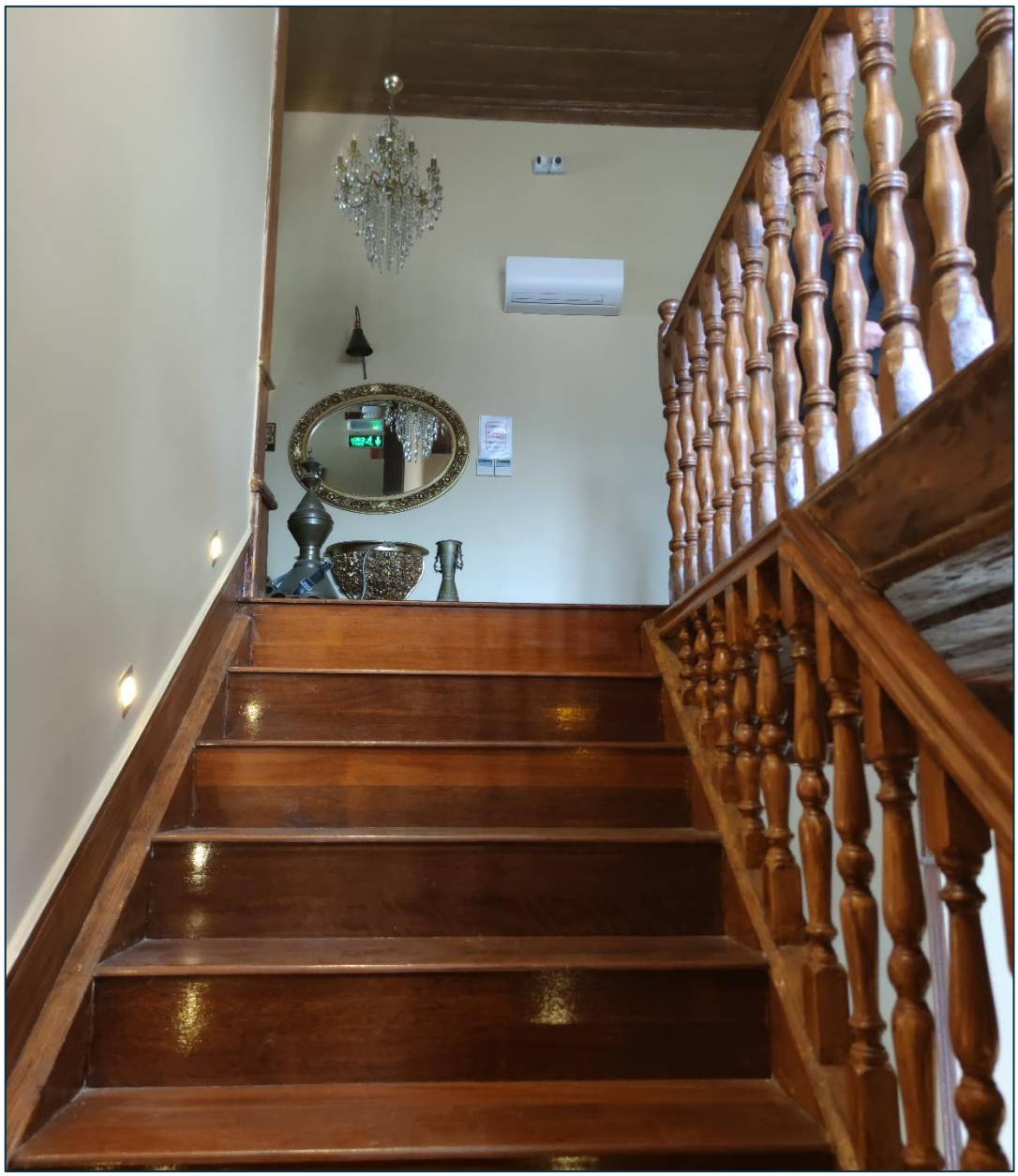


Figure 3.39. Photograph of the main staircase in Building B. Taken by the Author.

Halfway along the stairs, the mezzanine level can be accessed. This low ceiling space is a flexible zone used in accordance with the occupants' needs. Usually barebone and lacks decorations, the mezzanine can be utilized as a storage space, a pantry, service area, a winter room, or an extra bedroom. (Erarslan, 2020)

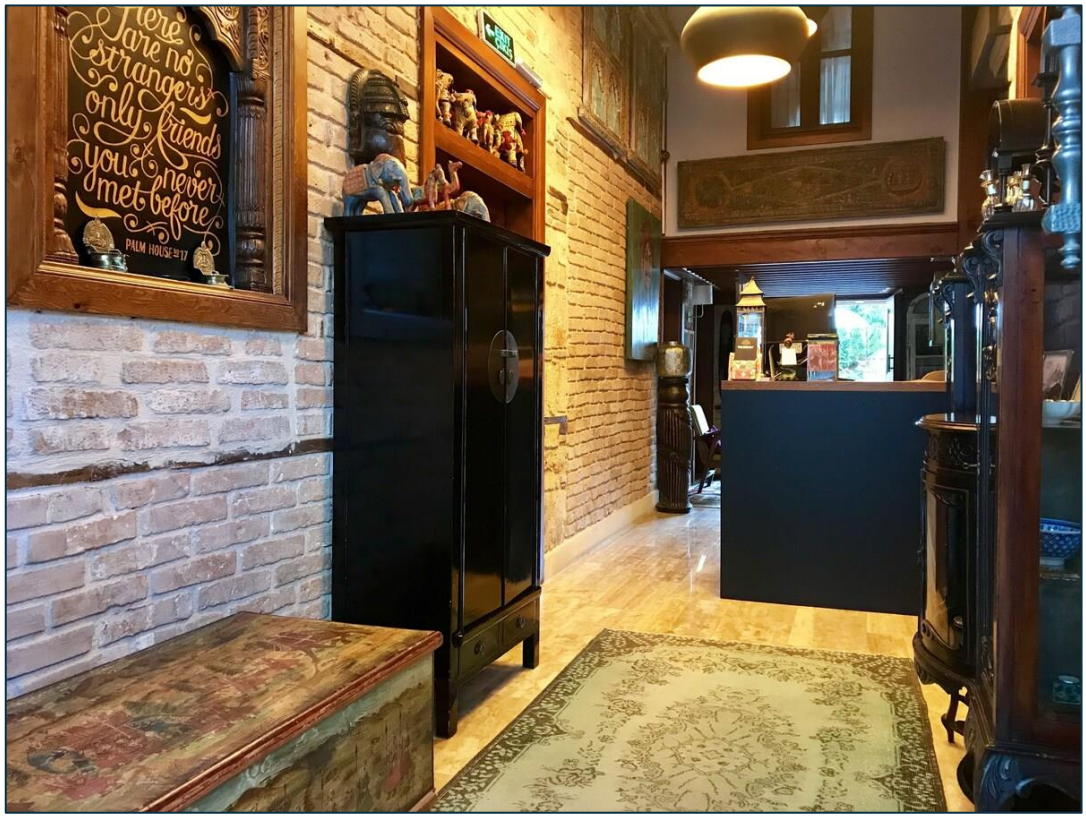


Figure 3.40. Photograph of the interior of Building D showcasing the mezzanine floor with a window projecting towards the ground floor, seen in the upper right corner. Retrieved on 22/02/2024 from https://tr.hotels.com/ho608497408/palm-house-17-oriental-misafir-evi-antalya-turkiye/.

At the end of the stairs, the first floor showcases a typical Ottoman family lifestyle via the rooms' layout. The *sofa* and the *oda* are the two main space types observed on the private first floor. The *sofa* constitutes the main living space and central circulation zone to access other rooms laid on opposite sides of it along the house's entrance axis. (Güçhan, 2017) It overlooks the main street from one side and the courtyard from another. (Ulusoy & Üstün, 2019) The size of it compared to the other rooms elevates its usage from a simple circulation element to being the common room for the gathering of the entire household.

Daily activities during the daytime take place in this enclosed area. (Erarslan, 2020) The *sofa* features an extruded volume above the main entrance past the wall limits of the ground floor and neighboring rooms, the projection features window openings from its three exposed edges to enhance natural lighting and ventilation from the south while also enhancing the view. (Erarslan, 2020) The *sofa* is encircled with rooms, also known as *oda*, which are large multifunctional rectangular spaces used as private living quarters for a family. It functions as a bedroom during the night, a private living quarter during the day, and is furnished with fixed wooden elements that facilitate daily life activities. (Demirarslan, 2017)

Each unit is a flexible and self-sufficient entity that's serves one family within the extended close relatives. (Erarslan, 2020; & Ulusoy & Üstün, 2019) The biggest of these rooms, usually oriented towards the west, is called the *başoda* and is reserved for the patriarch of the house, hence his children and their families occupy the other rooms as long as they live in the same house. (Erarslan, 2020)

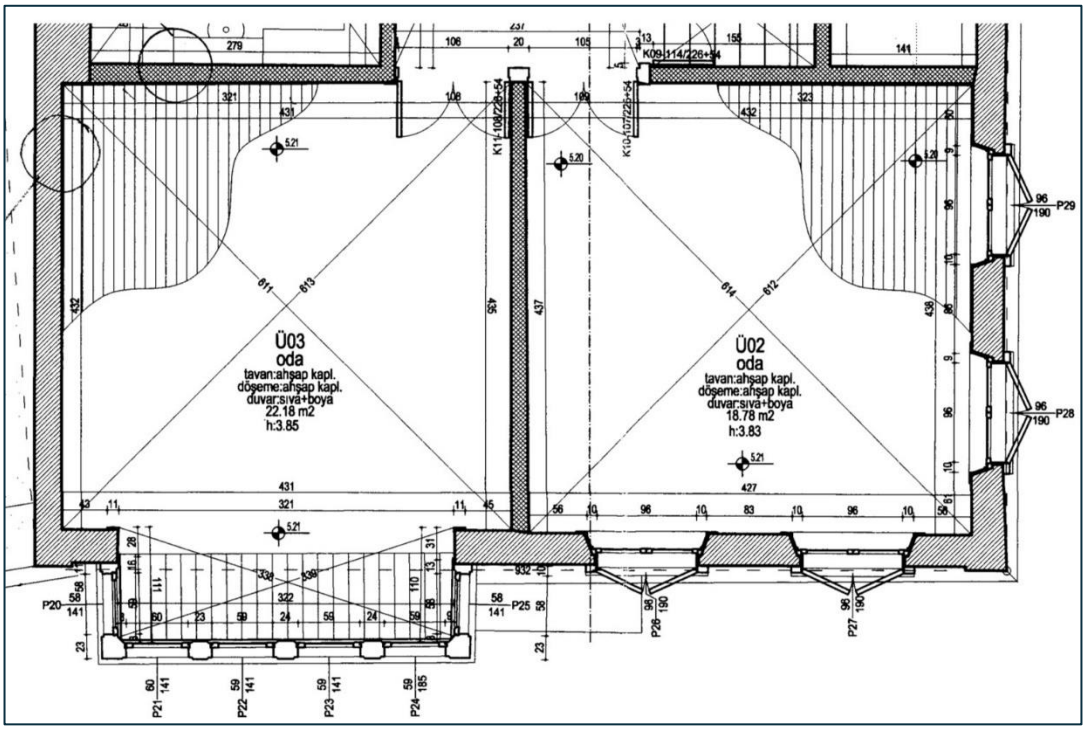


Figure 3.41. Portion of the plan of the first floor of building D showcasing the two main odas. Retrieved from the official documentation drawings of Building D.

Antalya's heritage residential buildings aren't complex in form and hence have one main front elevation which is elaborate, and three secondary ones which are more simplistic. Observations of these buildings' facades reinforced by documents that describe their state prior to interventions point out important architectural elements and features that compose such elevations.

The front main elevation of the building hosts a central access door that is surrounded by a pair of windows of equal length, width, and height above ground level, on each side of it. The *dukan* segment is seen relatively consistently on the right of the main façade. The more elaborate houses feature exposed fine-cut masonry spanning the ground floor of the building, with a thick skirting that slightly extrudes past the wall edge. (Cerasi, 1998)

The door and window openings are bordered with similar masonry type. Weight distributing arches are emphasized in this style with an elongated keystone and a similar stone workmanship. The windows are executed as double hung rectangular wooden windows with a cross design along the top and bottom sections. (Erarslan, 2020) Double hinged shutters are laid in front of the glass windows for privacy and weather protection when needed. (Ulusoy & Üstün, 2019)

The main door is wooden with an elaborate design and fixed glass upper section protected with a decorative metal motif. It showcases a stone threshold and is separated from the ground level by one to three stone steps. Elaborate stone workmanship is observed in the main door's borders, taking on a column like form with a base and detailed cap.

The shop mass hosts a more simplistic wooden door and an upper fixed opening for lighting that lacks the intricate design of the main entrance. The ground floor's top edge features a stone cornice along the entire front elevation, (Erarslan, 2020) visually dividing the ground and first floor while establishing a visual solid and steady base for the upper sections of the house.

Figure 3.42. Photograph of the architectural elements within and around the shop mass of Building B. Taken by the Author.

Less intricate heritage residential houses substitute the elaborate stonework for a rough-cut stone and brick mixture with a plaster and paint cover all throughout the building. They lack an exterior exposed stone building, showcasing the same fair faced paint even at the connection with the street.

Less emphasis is placed on the symmetry of the building as it is a more organic structure, as seen with windows that aren't strictly symmetrical along the main entrance central axis. On one side of the door two windows might be placed, while on the other a same size window would be used in the middle of the wall. Relieving arches above openings are still an architectural element constructed with bricks though hidden behind the plaster and paint. Window typology is the same but lacks stone motifs and instead utilizes basic timber frames, sills, and lintels. Metal cross bars are observed in documentations across the windows of the ground floor for security purposes. The entrance doors lack prestigious multiple stairs and instead have a single step and threshold separating them from the streets. Similar features such as the fixed upper glass opening with metal designs are observed, while the store door is much smaller and basic compared to the main one. The ground floor in this typology is encircled with a timber simple cornice separating the two levels and hides the floor beams of first floor.

In both typologies, the first floor features the same design elements with varying levels of detail and intricacies. The symmetrical design is still prominent across this floor with the projected section of the sofa taking central stage. (Cerasi, 1998) Located above the main entrance and boasting an elevation that is divided into three similarly designed parts, the extension has three windows and features the most detailed designs in the front elevation. With windows from all its sides, it is the main eye catcher across the first floor and creates a shelter for the zone under it. (Erarslan, 2020; & Ulusoy & Üstün, 2019)

The edge posts of the extended sofa are more prominent than the elements between them; supported by floor beams covered by the timber cornice, more detailed in this sector, and carrying the inclined roof shielding it. The entirety of this element is left as bare timber offsetting the painted walls around it. Similar to the ground floor, windows feature complementary timber design elements. The edges of the elevation are framed with visible and protruded timber posts and cornice emphasizing the dimensions and proportions of the first floor.

The main roof is the final feature of the main elevation and ends the shape composition of the building elegantly by respecting the symmetry and having a gentle slope to it. The roof and all secondary smaller ones covering additions are sloped and covered with tiles.

The other three elevations of the building do not feature similarly detailed inclusions and settle for the basic execution of architectural elements. In the more elaborate buildings, only the edges of the elevations are erected via fine cut stone that are left bare farming the façade. The stone elaborate cornice goes around the building even along the secondary elevations whereas the walls between them are built with the rough-cut stone and brick blend notable in this area, plastered, then painted. The back doors connecting the *taşlık* to the courtyards are less elaborate than their front counterparts, while windows are built via basic timber designs.

Figure 3.43. Photograph of the courtyard (Northwest) elevation of Building B. Taken by the Author.

On the other hand, throughout the elaborate typology windows and doors keep their fine cut masonry framing while losing the visible stone weight reliving arches, substituted by hidden brick ones under the layers of plaster and paint. Each room or *oda* across the elevation has windows ranging from one at least to three per wall at the most, all the same design and size. Whereas service sectors of the building can be easily discernable through their different openings size and shapes, squarish and break the order created by the other rectangular windows. Service windows are higher up, smaller than others, and mostly fixed, mainly utilized for natural lighting. (Erarslan, 2020)

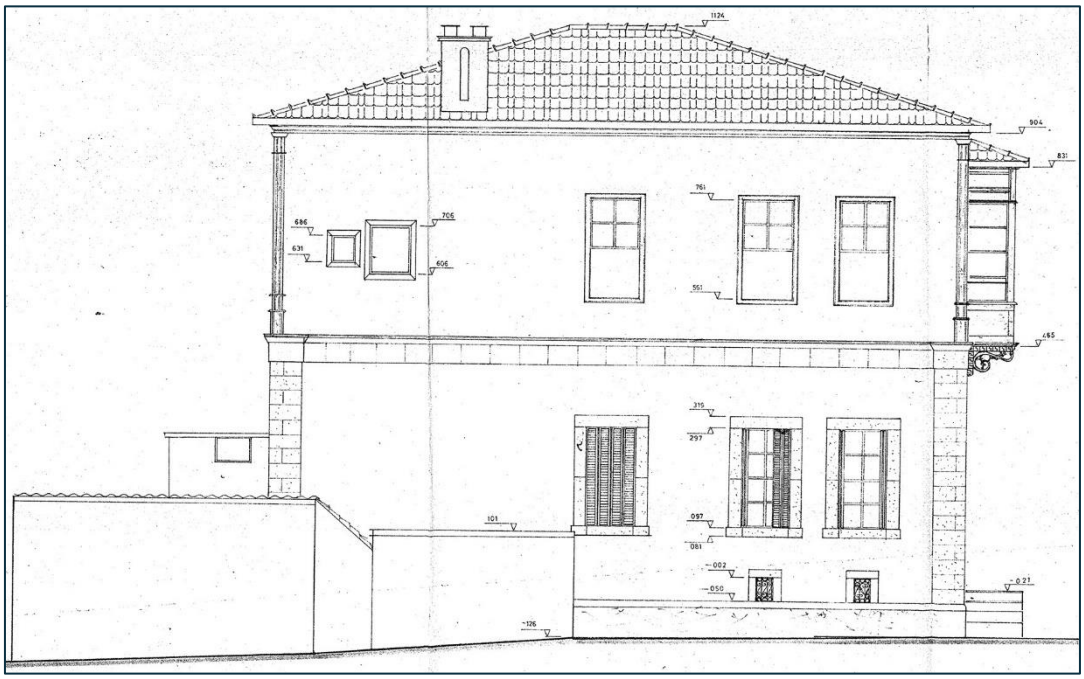


Figure 3.44. The southwest elevation of Building B. Retrieved from the official documentation drawings of Building B.

A myriad of architectural elements existed throughout the house integral to the daily life of the occupants and thus embroiled with physical, social, and use values. Through the house floors the main architectural features are the exterior windows and doors, interior double hinged room doors, single leaf service doors, different type of niches for different uses depending on the room type, fireplaces, cupboards around the hearth, high shelves, raised flooring, decorated ceilings, wooden cornices, intricately painted and designed wall murals, and chimney shafts. (Cerasi, 1998)

In some cases, internal windows are found indicating some clues about the previous order and form of the house. Other types of cupboards are observed in Antalya's heritage residential buildings for specific uses like water storage, linen storage, headwear organization, cups and dishes storing, or oil lamps placements. (Erarslan, 2020) These cupboard complexes were called *yüklük* and were essential in almost every room. (Ulusoy & Üstün, 2019)

A section of these timber structures known as *gusülhane* were allocated as bathing and ablution areas in the rooms (*oda*) to preserve the privacy of the house inhabitants when needed. (Güçhan, 2017; & Ulusoy & Üstün, 2019) Although almost completely gone from many publicly reused heritage buildings, the *sedir*, an elevated and furnished sitting place was used adjacent to the walls as the main seating in a room. (Ulusoy & Üstün, 2019)

3.2.2. Impact of the Planning Period and Tourism on Heritage Residential Buildings in Antalya, Kaleiçi

The tourism development that took place in place in Kaleiçi heralded with it a set of changes that impacted on the building both on a social level and a physical one. According to the sources specified in chapter three, part one, point four, especially Argin (2012) & Başok (2016).

From a social perspective the change started to take its course as the house owners in Kaleiçi started to open their houses for visitors who wanted to spend time in the historic town. This later developed into the owners renting out rooms as the area became more touristic and the residents started to see the economic potential of such an act. With the increase in lot values and the decrease in the quality of services and infrastructure, house owners started to entertain the idea of selling their properties and relocating elsewhere with better commodities. This change gradually took hold until a large number of properties within Kaleiçi got sold to development companies and turned into accommodation type buildings like hotels and spas.

Subsequently Kaleiçi started to lose its permanent residents and increase its percentage of tourists and visitors. This peaked as the touristic development took hold and Kaleiçi transformed into a historic touristic destination. This change in function and the need to update the building to fit the contemporary time and its needs, led to physical changes that impacted the building drastically.

This change is examined from an interior and exterior standpoint. The revision records after the conservation master plans showed that the buildings didn't display major changes to the exterior of the buildings, where they were left intact for the most part. Architectural elements were respected, and the general composition of the elevations and materials were left intact. This changed with time as the stakeholders pushed for a more aesthetic and picturesque restoration where uniformity of style took major importance.

Hence, liberties were taken through the replacement of some architectural elements or the alteration of others to fit a certain image of unrealistic authenticity. Masonry walls were exposed to show the underlying masonry work, and all timber elements were restored to reach a renovated aesthetic.

On the other hand, the interior changes held the greater portion of interventions as the buildings were accustomed to the new functions. New service areas were created for the hotels using new materials, partitions were taken down and new ones rearranged the place in a more fitting manner for the new functions. Stairs were relocated or removed to streamline the circulation while structural elements and new materials were being used as the original ones were deemed insufficient for the targeted aesthetic. The buildings shed a lot of the space aspects that defined them as heritage residential buildings for the sake of a more comfortable contemporary experience.

From an architectural elements point of view, they experienced the largest scale of different interventions. Most elements were used for their authentic aesthetic as a part of the building with disregard to their function. Some were transformed to other elements for modern use within the accommodation function while new ones were added in order to increase the historic atmosphere. The additions came at the expense of authenticity especially for users who are not equipped to distinguish between originals and additions.

Overall, the major problem with the impact of the planning period and the touristic development is the irreversible nature of the interventions acted upon the building. From removing original elements and structural components, to the addition of fixed elements that strongly affect the interlinked nature of the original building. Furthermore, the aesthetic message intended to be exhibited by these buildings paints an image of authenticity and historical beauty that is not founded within the original fabric, hence fabricating an unrealistic view of the past. From this point forwards it became clearer how some principles in the building were pushed or preferred over others in service of the touristic development agenda.

3.3. Heritage Residential Buildings Description and Intervention Analysis

3.3.1. Building A

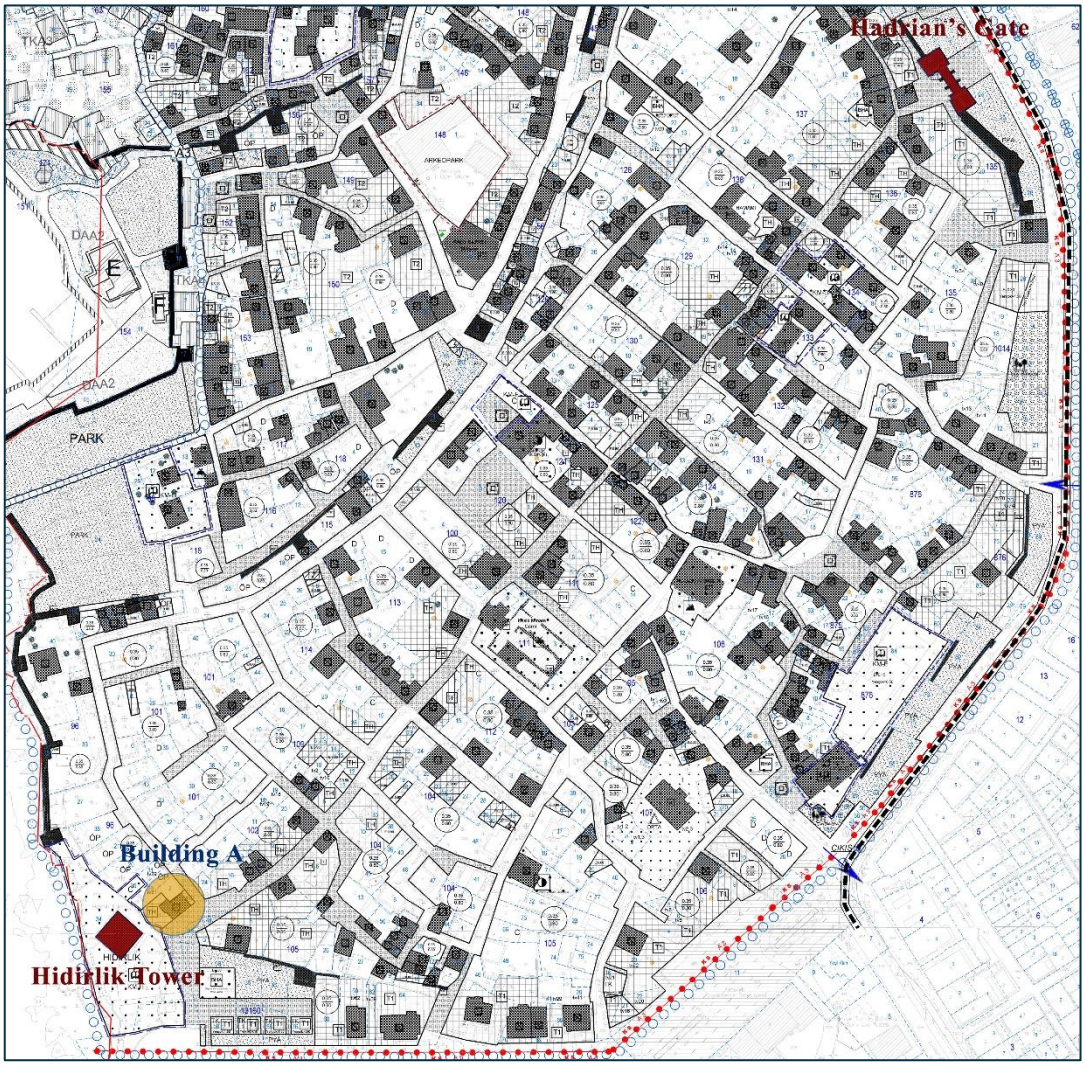


Figure 3.45. The location of Building A within Kaleiçi. Prepared by the Author.

3.3.1.1. Description of the Documented Physical Characteristics

The description of the building is tackled from the perspective of the five building components and their elements. Building A is a medium sized heritage building, compared to other buildings in Kaleiçi, heritage residential building. It is located on the King's Road connecting Hidirlik tower to Hadrian's gate, with the old basilica tuned mosque located within the same axis. Building A overlooks Hidirlik tower directly because the two lots are directly connected and unobstructed.

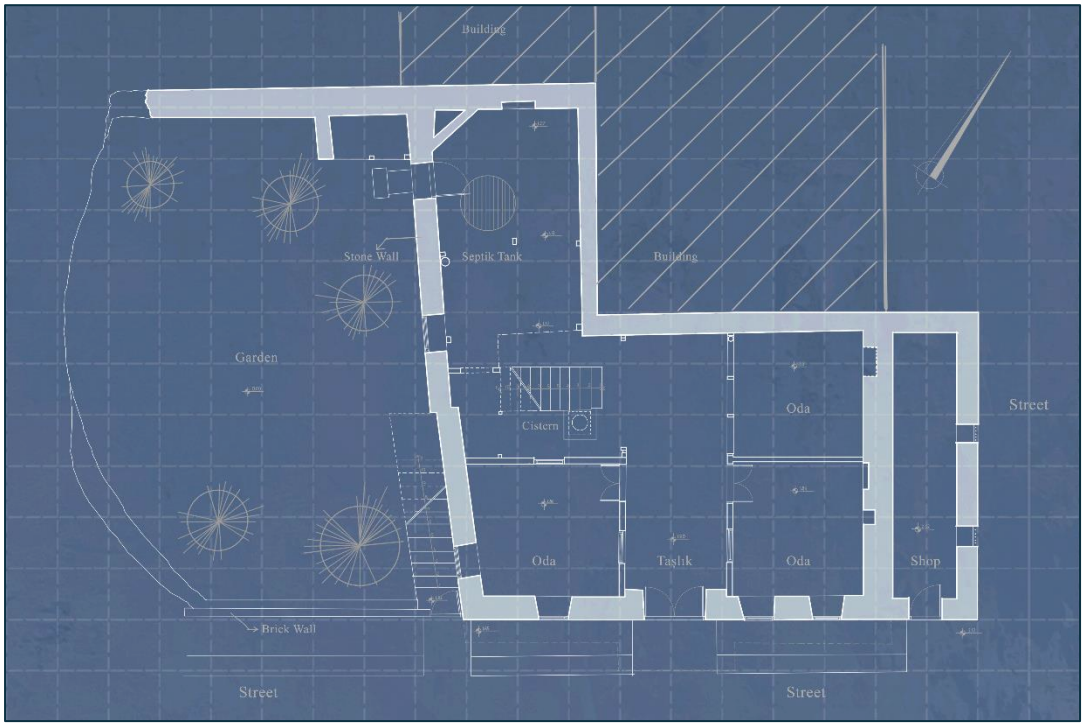


Figure 3.46. Ground floor pre intervention plan of Building A. Prepared by the Author based on the original documentation drawings.

With respect to the lot, Building A is situated at a corner between two perpendicular streets with the entrance located at the southeastern elevation. The courtyard is to the side of the building connected to it through one side, which is the southwestern elevation of the building.

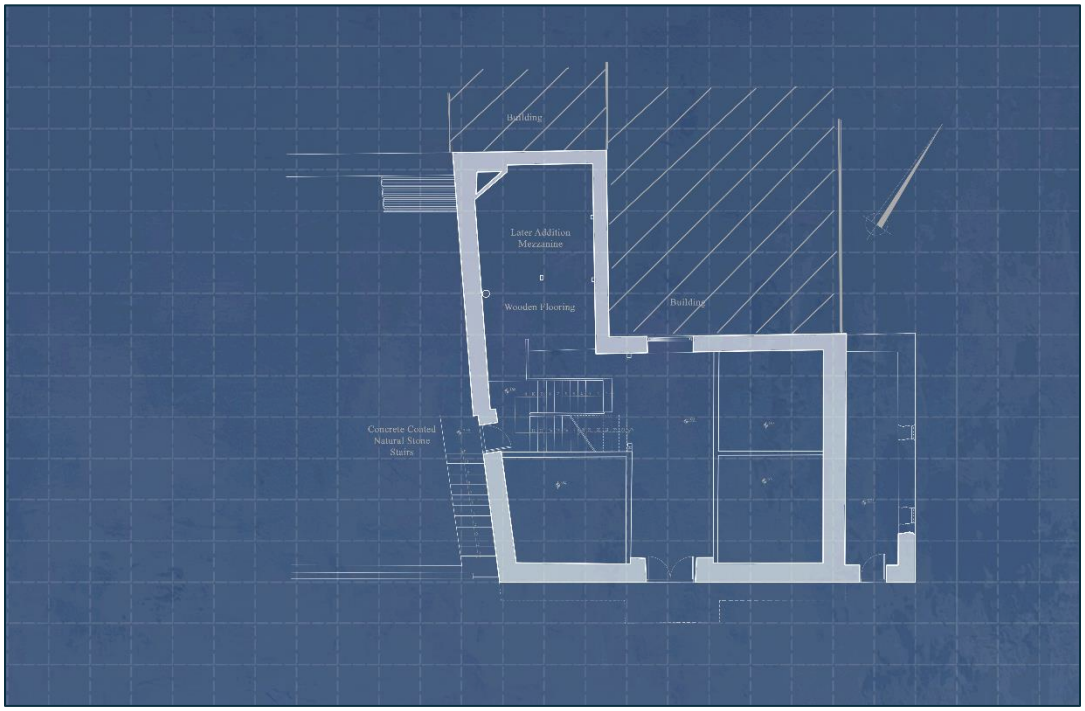


Figure 3.47. Mezzanine pre-intervention plan of Building A. Prepared by the Author based on the original documentation drawings.

Originally there was no access from the street to the courtyard, with a tall masonry wall separating the courtyard from the public street as was common in Kaleiçi. There was one access point from the street to the building's first floor which is the main entrance, whereas a secondary entrance was allocated from the street to the mezzanine floor directly via stairs that ran along southwestern elevation. The courtyard was sloped downwards towards the west such that the points of connection between the building and the courtyard are the highest and get lower towards the west. Soil was the dominant ground material, and trees were planted all over the courtyard. In addition to the front lot wall a back one was also erected to separate the site from the neighboring lots.

The mass of Building B consisted of the main building that was two floors high and a roof. A small mass is connected to the main mass towards the southwest elevation used for storage. From the northeastern direction a rectangular mass was connected to the main residential building which functions as a shop. Originally the shop had a terrace on top that got ruined and replaced by a makeshift pitched roof.

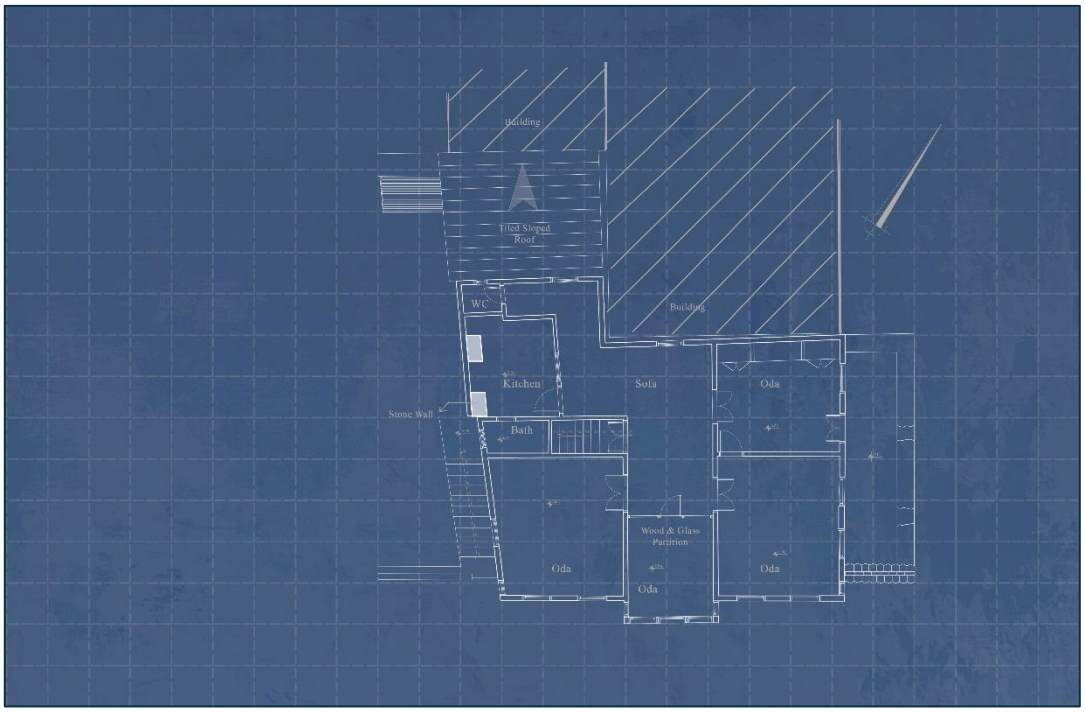


Figure 3.48. First floor pre-intervention plan of Building A. Prepared by the Author based on the original documentation drawings.

As for the structure, the building features a rough-cut stone base that's plastered and painted. The upper section is timber construction using the *bağdadi* method. The floor / ceiling, roof, and stairs are all made by timber construction methods. Through the service area of the house, which was located at the upper left section throughout the plans, has a service wall going up towards the first floor to where it services a kitchen, WC, and bath area.

Regarding the plan and planimetric features of Building A, it consists of a ground floor, small mezzanine floor, and a first floor. The ground floor is partially a selamlik and partially a service area, separated visually as the front end of the house and back end. The back end of the house is directly connected to the courtyard and can access the mezzanine and first floor through the stairs. The ground floor consisted of two guest rooms, two service areas, and a *taşlık* that connected the zones together. The *taşlık* also contained the stairs towards its back end between the two service areas.

Going up the stairs one is first met with an open mezzanine floor used a storage area, which is also accessible via the outdoor stairs. The purpose of the outdoor stairs was to provide quick access from the outside to the haremlik without the need to advance through the selamlik. The first floor consists of a similar *taşlık* that connects all the rooms, or odas, to one central space. There were three odas and one service area, two of the large odas were positioned towards the front elevation while a smaller one was directed towards the northeastern elevation with accessibility to a terrace. As on the ground floor the service area takes up the upper left corner in the residential building. As for the original architectural element they range from windows, doors, niches, fireplaces, cisterns, and cupboards, each with a certain function that assists in fulfilling the function of the space.

The façade of Building A is the outwards sum of the elements where the structural systems are distinguished, architectural elements create a symmetry in the design of the façade, and timber elements form projections and frames. Together these design cues assist in forming the original architectural and historic identity of the building.

Components		Physical Elements
LOT	Topography	Land level
	Built Elements	Pathways, Curb stones, Lot walls, Entrances, Floor covering, Steps, Railings
	Natural Elements	Trees, Plants
MASS		Separate masses within the lot, Masses attached to the side of the building, Masses erected on top of the buildig
STRUCTURE		Roof, Coulmns, Floors, Wall Materials amd Construction Technique
PLAN	Vertical Circulation Elements	Stairs
	Area Defining Elements	Exterior Walls, Interior Walls
	Architcetural Elements	Windows, Doors, Niches, Fire places, Ducts, Counters, Cisterns
FAÇADE		Metal Frames, Lighting Fixtures, Signs, Speakers, Shaders, AC units, Projections, Skirting, Wooden frames, Chimneys

Table. 3.1. Building components of the Kaleiçi heritage residential buildings, and their elements. Prepared by the Author.

3.3.1.2. Current Function Assessment

As explained previously the heritage residential buildings tackled in this study seized their function as a dwelling and instead were reused as hotels to serve the tourism within the area. The function within the building is split between reception, cafeteria, and some rooms on the ground floor, and the second floor being completely occupied by the hotel rooms.

This typology of house is suitable to host multiple different users in separate areas (odas) in a private manner, hence one would think that these types of buildings would be compatible with the hotel concept. The main problem with this reuse method is the changes necessary for the building to be able to host users with contemporary needs. Despite the overlapping of function between a dwelling and a hotel, the needs of the individual changed hence more facilities are needed. When a timber cupboard, which is a part of the architectural elements, is enough to serve one room in multiple ways, nowadays extra spaces are needed for service areas. This led to the construction of extra partitions in order to add service spaces such as bathrooms while demolishing others to adjust the spaces and create sufficient areas for all users.

Even though some changes are harmful, they can be necessary for the functioning and economic gain of a project. Other changes are made for the sake of an aesthetic atmosphere and the creation of a historic scene even when it does not line up with the architecture in hand. This is especially seen with the use of materials, architectural elements, and the arrangement of the façade. These types of functions sacrifice a portion of authenticity for attracting users to what they think is real heritage.

Overall, as far as reuse of heritage residential buildings go, the accommodation functions prove to be on the spectrum of more compatible functions to reuse Kaleiçi buildings as, but it is the method and types of intervention that disregards some values in serve of others is what propagates some of the major problems discovered in the next subchapter of chapter three.

3.3.1.3. Building Intervention and Change Analysis

This section aims to dissect the interventions acted upon Building A from an element perspective within each component. Hence each component is analyzed separately upon the building's drawings: ground floor pre intervention plan, ground floor post intervention plan, mezzanine pre intervention plan, first floor pre intervention plan, first floor post intervention plan, along with the southeast, southwest, and northeast elevation both pre and post intervention. The intervention analysis was done on elements that underwent interventions within each building component.

This intervention analysis aims to deduce the broader intervention types within each component in the next section so that their effect on values can be examined in the following chapter four.

Intervention Analysis Key:

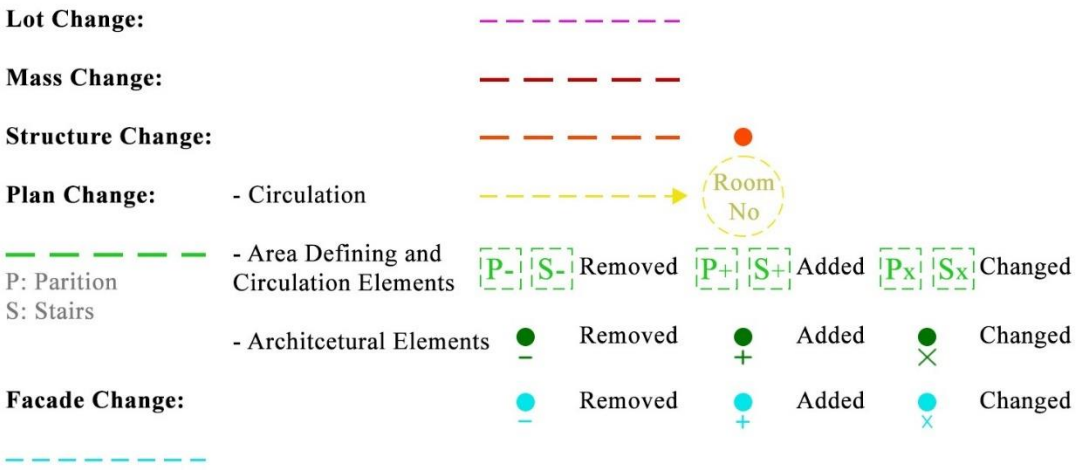


Figure 3.49. Intervention analysis key. Prepared by the Author.

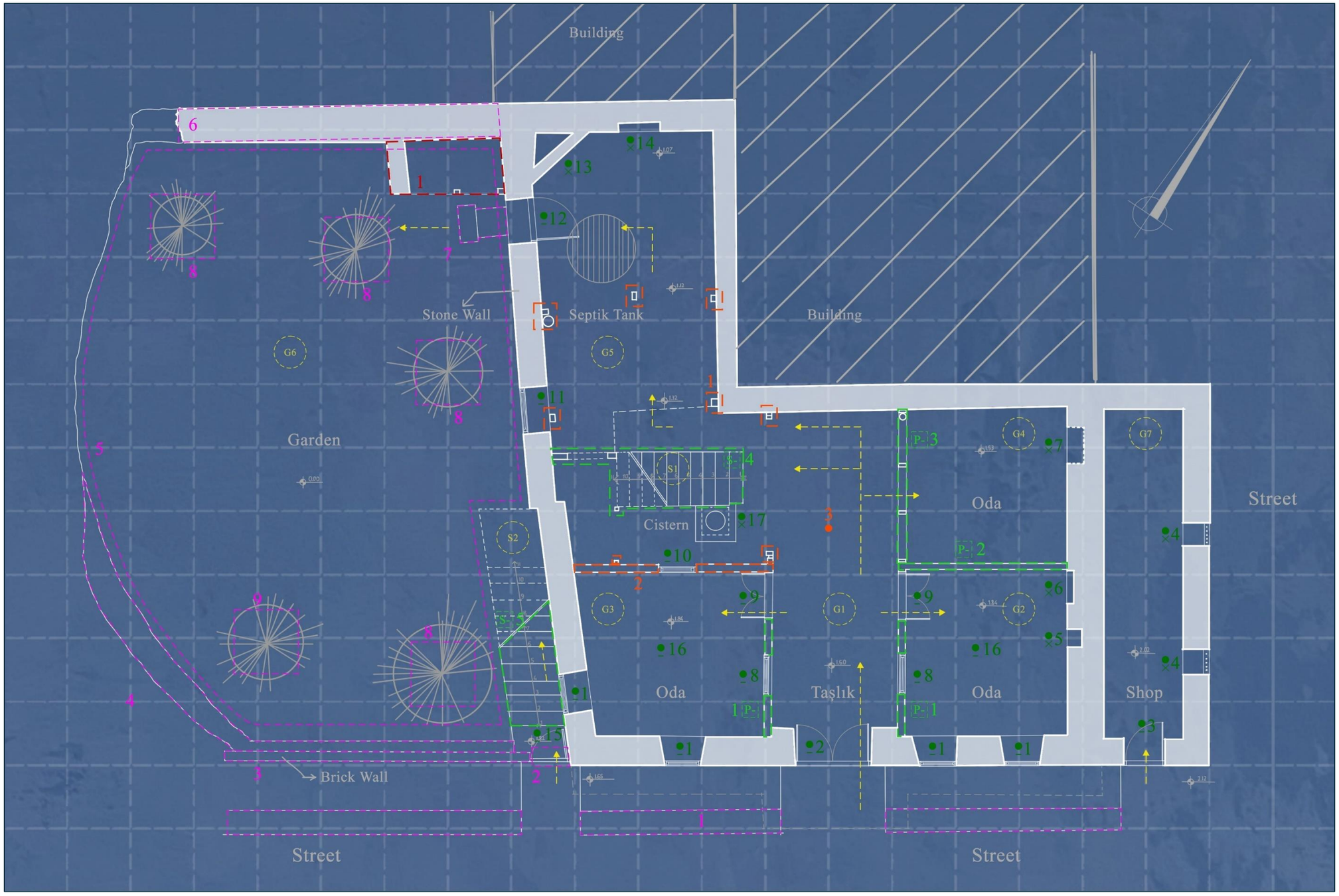


Figure 3.50. Original ground floor intervention analysis plan of Building A. Prepared by the Author.

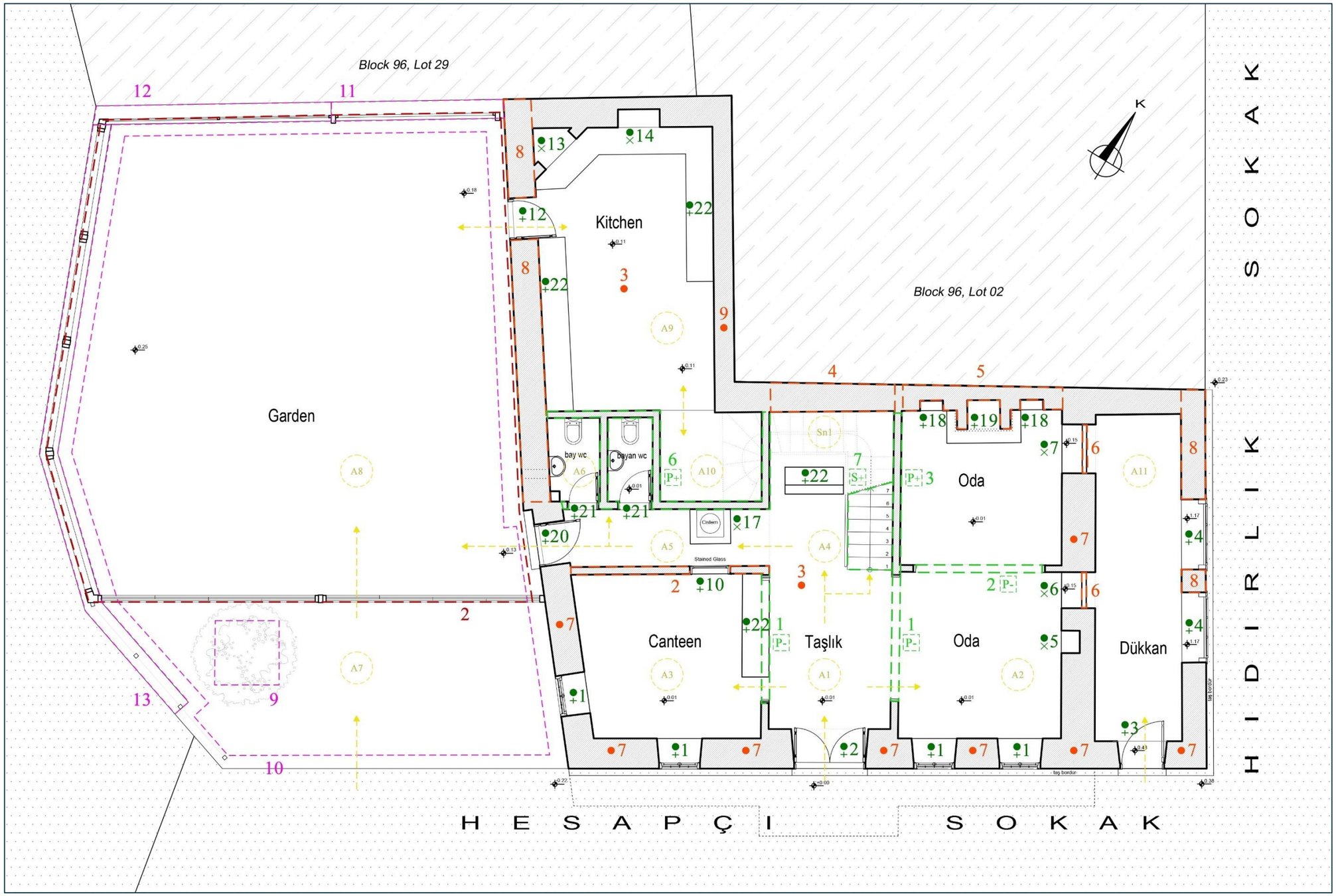


Figure 3.51. Restored ground floor intervention analysis plan of Building A. Prepared by the Author.

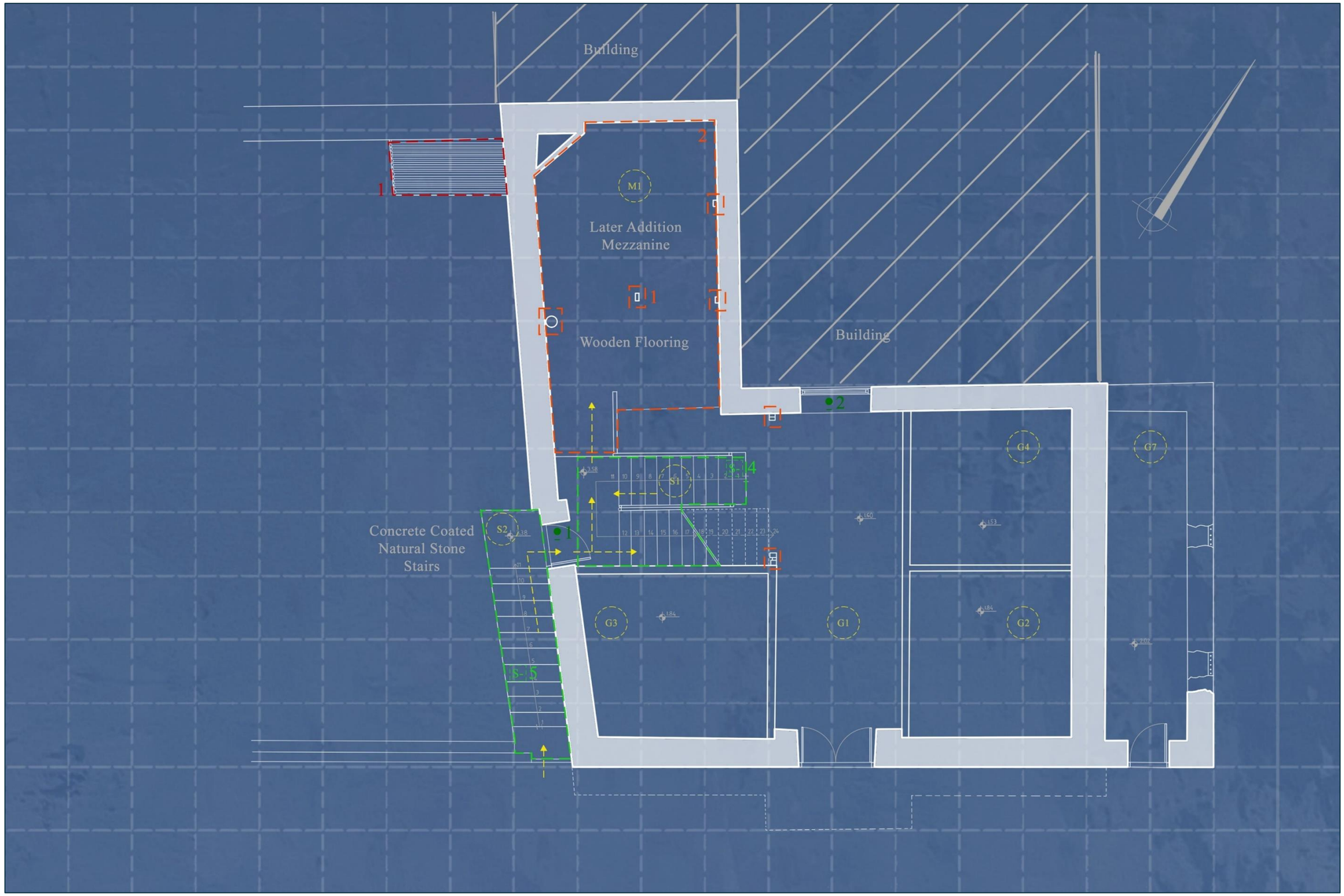


Figure 3.52. Original mezzanine intervention analysis plan of Building A. Prepared by the Author.

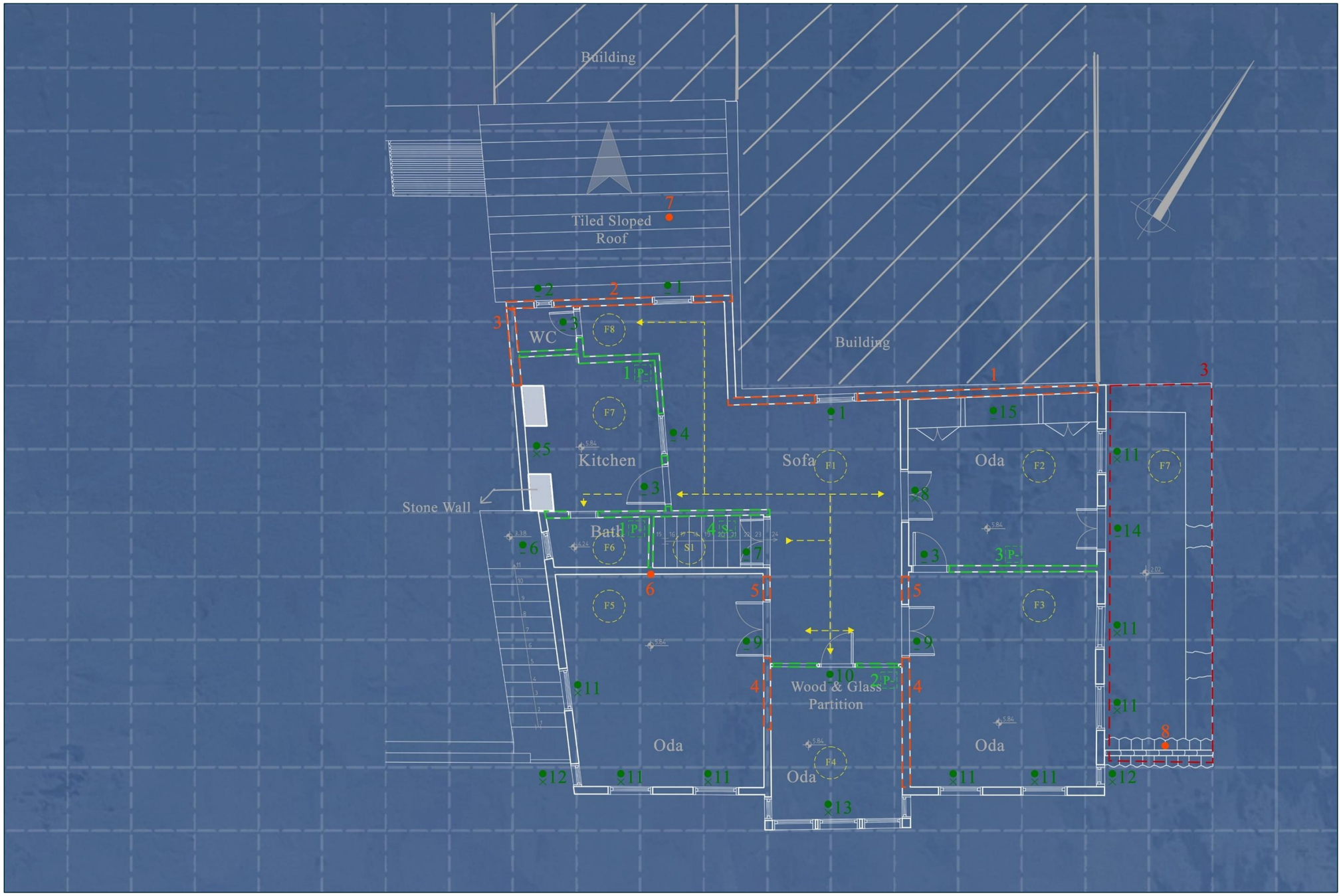


Figure 3.53. Original first floor intervention analysis plan of Building A. Prepared by the Author.

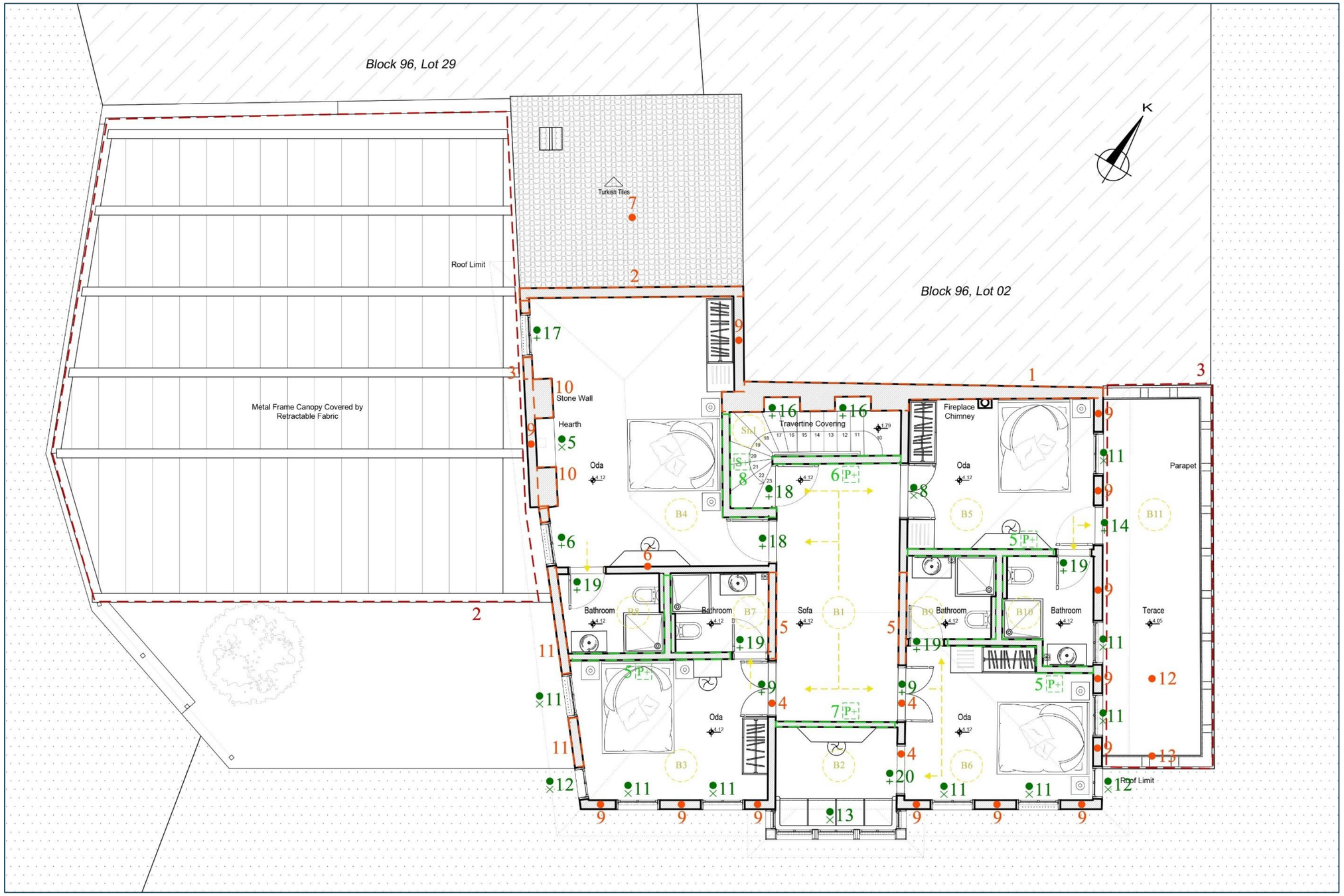


Figure 3.54. Restored first floor intervention analysis plan of Building A. Prepared by the Author.

Figure 3.55. Restored (bottom) and original (top) southeast elevation intervention analysis of Building A. Prepared by the Author based on the official original and restoration drawings.

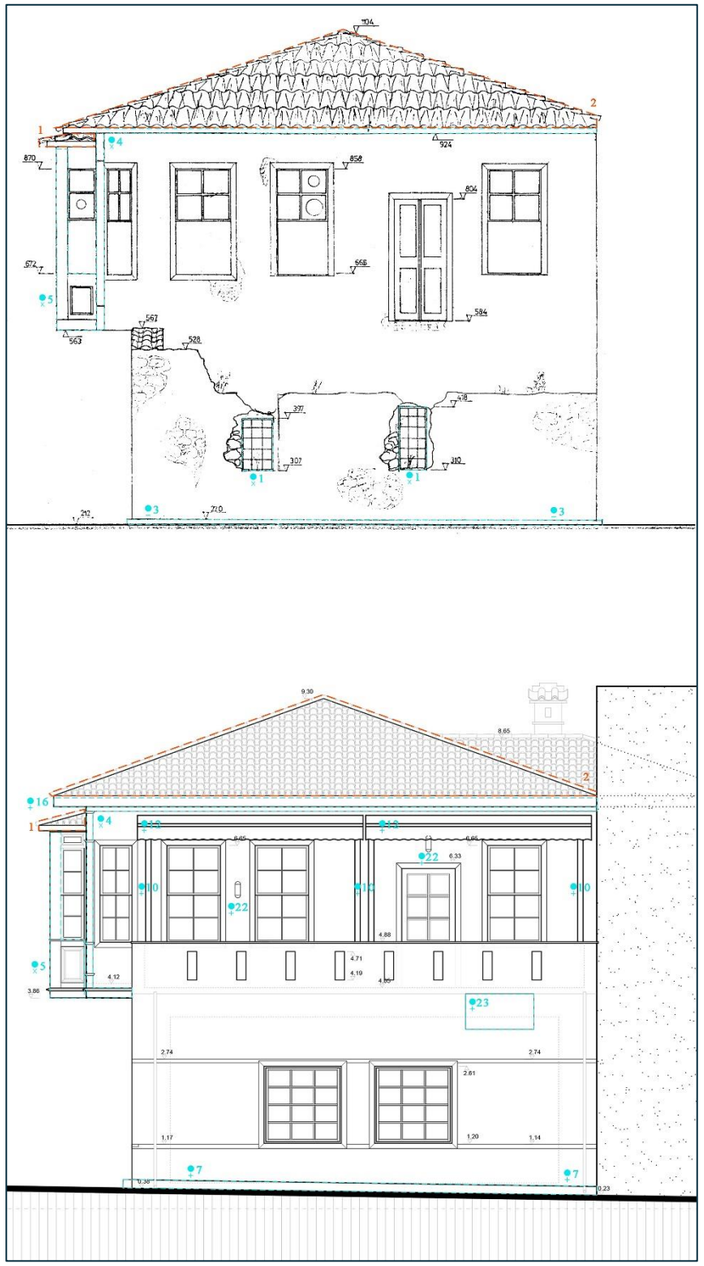


Figure 3.56. Restored (bottom) and original (top) northeast elevation intervention analysis of Building A. Prepared by the Author based on the official original and restoration drawings.

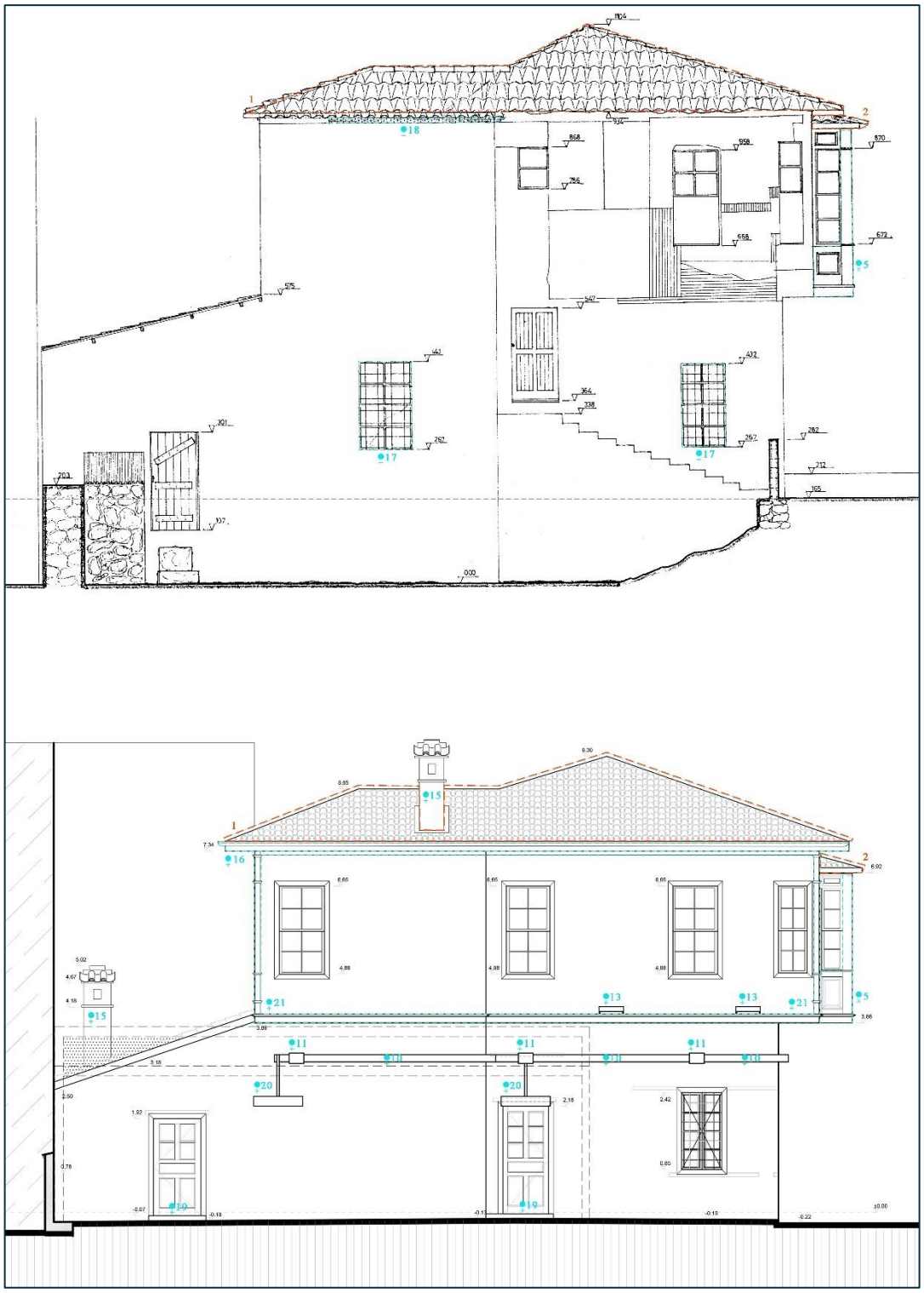


Figure 3.57. Restored (bottom) and original (top) southwest elevation intervention analysis of Building A. Prepared by the Author based on the official original and restoration drawings.

- Interventions upon LOT component:

(Ground Floor Plans)

Topography:

(5) Changing the topography of the courtyard from its original sloped nature and filling it to a straight height which is level with the street and the building. This change affected the relationship between the house and street to the courtyard in terms of accessibility and interaction in addition to the visual relation of the courtyard with the surrounding lots. The courtyard could now be directly accessed from the street due to the removal of the wall and the ground levelling.

Figure 3.58. Building A leveled and tiled flooring in direct relation with the street. Taken by the Author.

Built Elements:

(1) Removal of the street offset curb stones separating the private building from the public street and creating a semiprivate buffer zone along the front elevation of the building. The curb stones created pathways that directed users towards the main and side entrances directly and kept a space between the pedestrians and the building. This space acted as a waiting zone before entering the building with the overhead elevation projection shielding the bystanders from rain or direct sunlight. Hence with the removal of this feature not only did the physical setting of the building change but the social environment that is tied to the element also did.

(2) Removal of the side entrance access allowing the users to directly access the private haremlik section from the street without the need to go through the main entrance and the selamlik. This removal affected the social environment along with the physical setting for its direct affiliation with the original intended use of the building.

(3) Removal of the original front lot wall separating the courtyard from the street and enabling the needed privacy of the courtyard. Hence the courtyard is exposed and completely accessible from the main street in opposition to its original intended use.

(4) Removal of the original parapet lining the limits of the lot.

(6) Removal of the original back lot wall separating the courtyard from neighboring lots which provides a level of privacy for the users, previously intended in its original use.

(7) Removal of the stone steps connecting the building to the courtyard. The steps were needed to compensate for the considerable level difference between the courtyard and the building altered by the change in the topography.

Figure 3.59. Building A before the major conservation interventions to its main mass. Retrieved from google earth photo archive.

(10) Addition of modern smooth tile covering to the levelled courtyard and hence covering up the soil within the lot which made up the major surface of the courtyard. The courtyard was mainly used for house chores, recreation, and small-scale agriculture, and hence the new addition halts its original intended use and features.

(11) Addition of a low height red brick wall as a back separator between the courtyard and the neighboring lot. This addition replaces the removed high stone wall and uses brick building techniques that are foreign to this area with properties that are not compatible with the intended usage. In addition, the added wall is not meant for privacy but for lining the lot limit which is diminishing to the original intended purpose of the lot wall.

Figure 3.60. Courtyard added brick wall. Taken by the Author.

(12) Addition of a new low parapet along the edges of the lot with new techniques and materials compatible with the added floor tiles.

(13) Addition of metal and glass railing above the parapet as a barrier between the courtyard and neighboring steep slope.

Figure 3.61. Courtyard added low parapet and glass railing. Taken by the Author.

Natural Elements:

(8) Removal of the original fruit trees from the courtyard used in house scale agriculture and recreational activities. The upper parts of these trees were visible from the street by pedestrians and acted as an important layer of the street scape.

(9) Displacement of the original trees from their original location to another within the lot.

Figure 3.62. Displaced trees within the courtyard. Taken by the Author.

- Interventions upon MASS component:

(Ground Floor Plans)

(1) Removal of a small service shed attached to the side of the building and the back lot wall used as a storage unit.

(2) Addition of a large metal and glass construction space attached to the side of the building. The addition is clearly seen from the main street and covers up parts of the ground floor façade of the building. It is erected as a shelter for the outdoor area with a retractable roof. It is a lightweight structure with a sloped roof and a large footprint that covers around 70 percent of the open courtyard and is directly accessible from the street without the need to enter the building first. This mass facilitates the changed function of the building by providing a sheltered space for the outdoor area turned café.

Figure 3.63. Added mass at the side of Building A within the courtyard. Taken by the Author.

(First Floor Plans)

(3) Addition of a porch on top of the shop area attached to the side of the building along the entire Northeast Elevation. This porch is based on previous iterations of the building concluded from the building clues and earlier documentation. The material used is red brick which was not used previously in such manners and techniques. This addition provides a porch to one of the bedrooms situated on the first floor and as a covering for the previously demolished and primitively covered shop roof.

Figure 3.64. Added porch on top of the shop area. Taken by the Author.

- Interventions upon STRUCTURE component:

(Ground Floor Plans)

(1) Removal of supporting structural timber beams that held up the mezzanine floor.

(2) Structural modification to a timber interior wall which entailed the removal of a window and placing another one in an adjacent location within the same wall. The original opening was closed, and a new one was placed to facilitate the replaced architectural element. Hence most of the wall is still original in its structural materials and techniques, with adjustments to the finishing and infill materials. The entire wall was re-plastered and painted to match the newly added walls on the ground floor.

(3) Replacement of the flooring across the ground floor with new modern tiles, some containing patterns and designs, and others for service areas.

Figure 3.65. Added interior floor tiles. Taken by the Author.

(4) Replacement of a masonry wall with a new one of different materials that extends towards the first floor and covered with bricks. The use of bricks in such techniques is not complementary with the building techniques used in these structures even if brick slates and some brick blocks were utilized in the original masonry walls mixture; the bricks were consistently to a lesser proportion than the primarily laid stones.

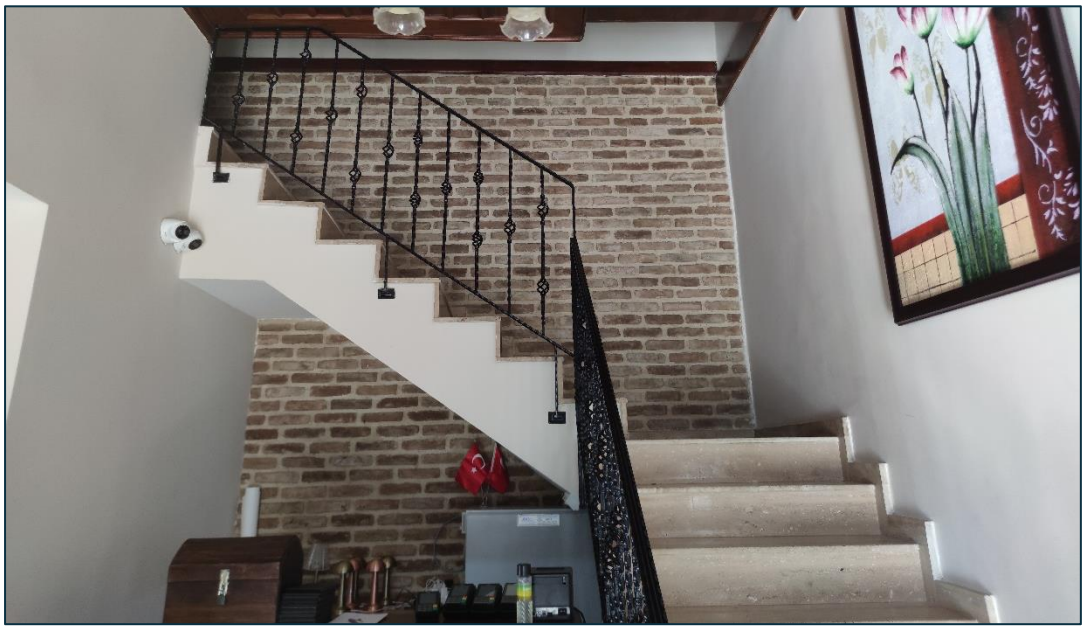


Figure 3.66. New brick wall replacing the original stone masonry one. Taken by the Author.

(5) Replacement of a masonry wall with a new one of similar materials, primarily cut stone and some brick blocks. The new wall shares some material properties with the original adjacent masonry walls, although some differences could be pointed out. The masonry is more smoothly cut than the original ones which are predominantly rough cut, the masonry rows are more linear and straighter than the original, the mortar joints appear newer, and brick slates are abscent from the new wall. Some architectural elements like niches and a fireplace were added to this wall, previously abscent from the original iteration of the structure giving it an authentic aesthetic at first glance, but with further observation the differences in construction techniques are more visible.

Figure 3.67. New stone and brick composite wall replacing the original stone masonry one. Taken by the Author.

(6) Addition of a brick partition within a created opening in a masonry wall. The cavity was created by carving out a niche and an opening that was previously closed, the stones were taken out and the openings enlarged. They were then filled in with a brick construction that wouldn’t be found in these types of buildings.

Figure 3.68. New brick minor partition. Taken by the Author.

Figure 3.69. Maintained and cleaned exterior masonry wall. Taken by the Author.

(7) Maintenance and cleaning of masonry exterior walls with the removal of the exterior covering layers of paint and mortar. The mortar and paint were not original due to the continuous application of these layers over time for repair. The masonry was hence exposed which isn't in line with the type of construction implemented in this building. Rough cut stone constructions are dominantly covered in Kaleiçi opposed to the fine cut masonry which are left exposed. The cleaning process removed traces of age, biological growth, and coloring on the stone, while the joints were reinforced with lime-based mortar.

(8) Partial reconstruction of a masonry wall with similar material and techniques to the original used. Where a part of the masonry wall lost its elements and hence the space was rendered unusable, the reconstruction was required to seal the space again. Similar stones with similar binding techniques were used which makes it difficult to perceive the original portions from the later ones. Moreover, the stones were cleaned to remove traces of age, biological growth, and coloring and repaired or maintained were needed with the joints reinforced with lime-based mortar.

Figure 3.70. Partially reconstructed masonry wall. Taken by the Author.

(9) Maintenance and repair of an exterior masonry wall belonging previously to the service area. The space was transformed into a kitchen and hence the wall was also covered with new wall tiles to facilitate the new function within.

(Mezzanine Plan)

(1) Removal of supporting structural timber beams that held up the sloped roof.

(2) Removal of the mezzanine floor completely including the timber floor beams and the timber floor planks.

(First Floor Plans)

(1) Replacement of a timber wall with a new one with different materials and construction techniques. All architectural elements attached to the wall were removed and new ones were added to the new one like niches which weren't present before.

(2) Structural modification to a timber exterior wall which entailed the removal of windows and filling the gap. A large proportion of the wall is original in its structural materials and techniques, with adjustments to the finishing and infill materials especially in the filled in areas. The entire wall was re-plastered and painted.

(3) Structural modification to a timber exterior wall where an opening was made in the wall to facilitate an added window. The wall was thereafter re-plastered and painted to match the adjacent walls.

(4) Structural modification to a timber interior wall where an opening was made in the wall to facilitate a displaced timber door. The wall was thereafter re-plastered and painted to match the adjacent walls.

(5) Structural modification to a timber interior wall where an opening was closed and filled to facilitate the removal of a timber door. The wall had structural reinforcements and infill then re-plastered and painted to match the adjacent walls.

(6) Structural modification to a timber interior wall where an opening was made in the wall to facilitate the addition of a new door. The wall was thereafter re-plastered and painted to match the adjacent walls.

(7) Replacement of a tiled sloped timber roof with a new timber structure and Turkish tile covering utilizing modern methods.

(8) Removal of a tile arrangement set on top of the shop entrance to facilitate the new addition on top. The tiles were used to redirect rainfall.

(9) Minor repair of exterior timber walls including minor structural maintenance and the reapplication of the plaster and paint layers.

(10) Maintenance of masonry service wall including the application of new plaster and paint layers.

(11) Extensive repair of exterior timber walls including structural reinforcement and the partial reapplication of the bağdadi covering of thin timber slats over the main posts and infill materials. Moreover, the plaster and paint layers were reapplied.

Figure 3.71. Extensively repaired timber exterior wall. Taken by the Author.

(12) Addition of a concrete roof structure on top of the shop zone which couples as a terrace area for the bedrooms along the first floor. The structure is built using modern techniques with columns hidden in the interior of the shop area adjacent to the masonry walls hoisting a concrete slab and parapet.

(13) Addition of a brick covering to the terrace parapet to give a rustic look to the new construction. This type of brick construction was nonetheless not used in the area and hence some design liberty took place.

(Elevations)

(1) Replacement of the tiled sloped timber building roof with a new timber structure and Turkish tile covering utilizing modern methods.

(2) Replacement of a secondary sloped timber building roof with a new timber structure and Turkish tile covering utilizing modern methods.

- Interventions upon PLAN component:

(Ground Floor Plans)

Vertical Circulation Elements:

(4) Removal of the interior timber stairs (S1) that connected the service area of the ground floor (G1) to the first-floor sofa (F1) which is a private zone.

(5) Removal of the exterior masonry stairs (S2) that provided access from the main street directly towards the mezzanine floor then subsequently to the first floor without the need to access the selamlik zone on the ground floor. This access was important for the initial residential functioning of the building and the sociocultural values of the time.

(7) Addition of concrete stairs (Sn1) at a different location than the initial stairs. The stairs are covered with marble tiles and connect the lobby area (A4) to the hotel rooms area on the first floor (B1).

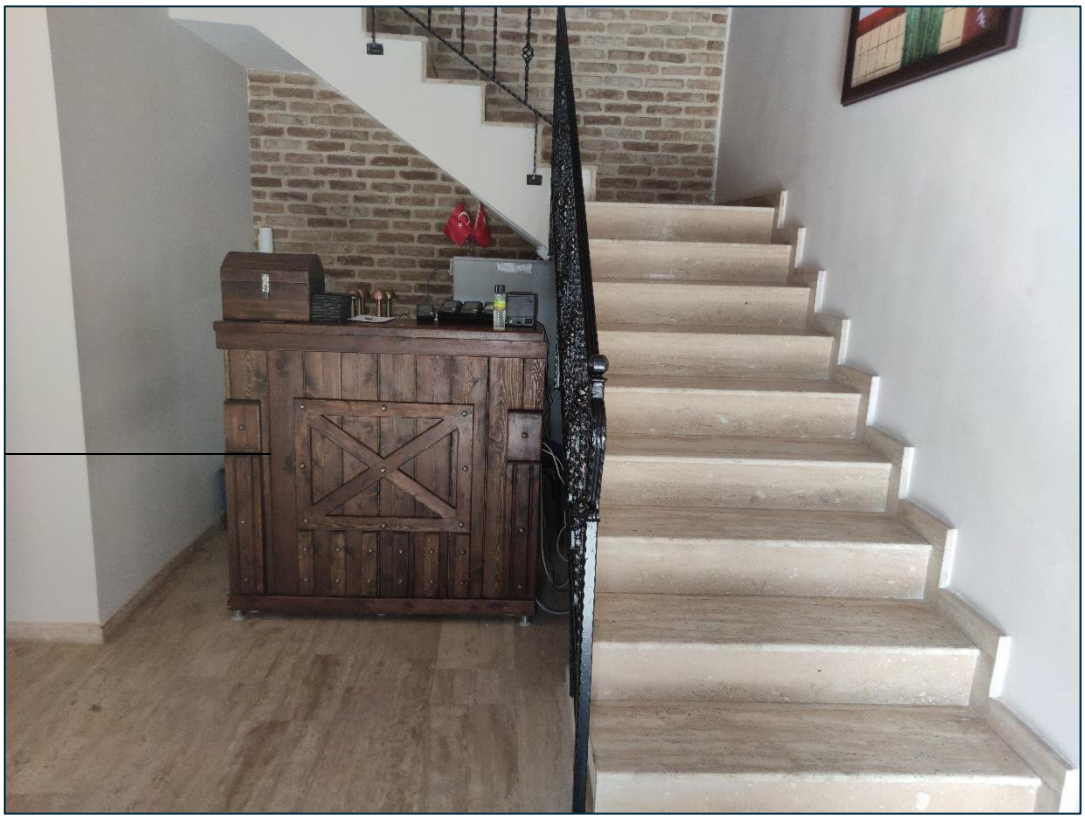


Figure 3.72. Added concrete stairs. Taken by the Author.

Area Defining Elements:

(1) Removal of an interior timber wall, that separated the odas (G3) and (G2) from the taşlık (G1), to create an open space that meshed zones together completely. The walls removed contained important architectural elements that enriched the values of the plan and gave clues about the earlier phases of the house. Hence the loss of these partitions affected the physical setting and social environment of the building irreversibly.

(2) Removal of an interior timber wall that completely separated two rooms, (G2) and (G4), with different functions and hence merging them into one continuous zone with a single changed function. Space (A2) was subsequently created and directly accessible from (A1) and visually connected with (A3).

Figure 3.73. Removed timber wall. Taken by the Author.

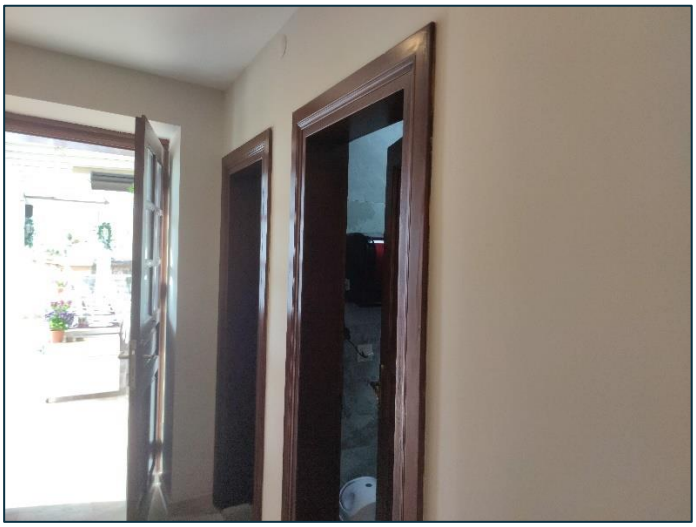


Figure 3.74. Added service partition. Taken by the Author.

(3) The addition of a new wall with a new construction system in place of an earlier partition with different features and usage. The previous partition consisted of posts that separated the oda (G4) from the back end of the taşlık (G1); the posts created a semi physical border that defined the perimeter of the space while establishing a clear visible connection with the surrounding. Replacing this feature with a solid wall nullifies a set of intended unique function of this space. The wall was painted in a similar manner to all other walls on the ground floor and hence fed into the lack of distinction between the original and added elements.

(6) Addition of a set of walls to create service enclosures and to separate the service part (G5) from the taşlık (G1) and the selamlik section at the front of the house as seen in the original plans. Hence a kitchen (A9) was formed towards the back of the building and toilet areas were set along the now closed connected between (A9) and (A1). In addition to the toilet zones a kitchen complementary space was set within these added walls. The kitchen (A9) is only accessible via the outdoor area (A8), and the bathrooms have direct access from either the outdoor area (A8) or the new taşlık (A1) through the corridor (A5). The walls were painted in a similar manner to other ground floor partitions and hence fed into the lack of distinction between the original and added elements.

Architectural Elements:

(1) Replacement of original timber windows with new ones of similar materials but different techniques. The original windows found in odas (G2) and (G3) were upward sliding timber windows, later replaced by double hinged windows found in rooms (A2) and (A3) of the post intervention ground floor plan. The added windows are timber with a veneer finish that gives them a restored or new look in line with all other restored elements. Without a study of the architectural elements in this typology of houses within Kaleiçi, the unauthentic nature of the windows wouldn't have been easily detected.

Figure 3.75. Timber window replacing an original one using unoriginal techniques. Taken by the Author.

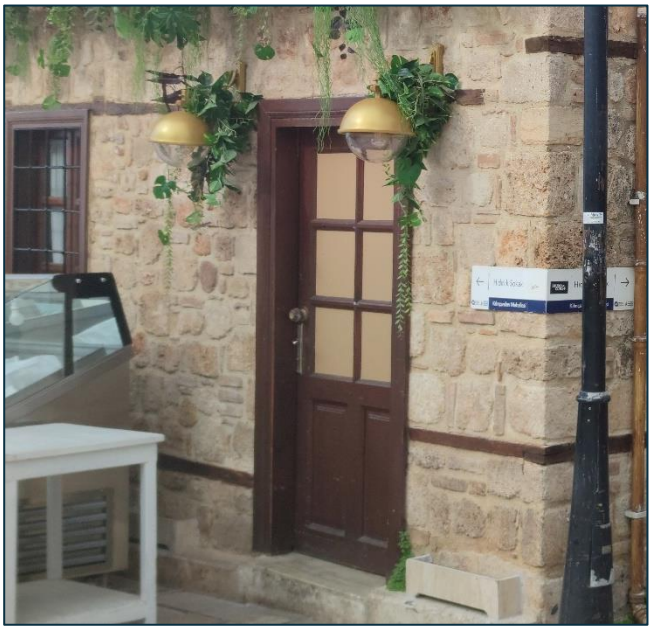


Figure 3.76. Secondary door replacement using unoriginal materials and techniques. Taken by the Author.

(2) Replacement of timber door with a new one using similar materials. The door is the main entrance door and is different from the one depicted in the documentation drawings. It hosts a similar glass upward portion with approximately the same dimensions but different lower timber parts. Like other timber architectural elements, it is coated in veneer.

(3) Replacement of a timber secondary door with a new one using different materials. The door providing access from the street to the shop area (G7) was replaced by a new door with a modern look and different construction technique, clearly distinguishable amidst other build elements.

(4) Enlarging an opening, removing original architectural elements within, and installing new windows with different materials and techniques. The shop (G7) area had two small openings on its Northeast wall fitted with vertical iron bars. The bars were removed, the opening enlarged which entailed the removal of a large amount of original masonry, and new windows were fitted. The new windows seen in shop (A11) feature a modern look and construction techniques clearly distinguishable as later additions.

Figure 3.77. Enlarged opening with new materials and technique windows. Taken by the Author.

(5) Maintenance and cleaning of a niche, situated in oda (G4) inside a masonry stone wall, so that all signs of age, biological growth, and coloring are removed. With the change in the function of the building the niches lose their intended function and take on a new role within the oda (A2) of the post intervention ground floor plan.

Figure 3.78. Maintained and cleaned niche (right) and dismantled then rebuilt niche with new interior materials (left). Taken by the Author.

(6) The dismantling of a niche and rebuilding with different materials and techniques. The niche situated in a masonry wall, in oda (G2), was dismantled with the stones taken out and a hole spanning the entire depth of the wall was established. The edges were cleaned returning the stones to a pristine condition and the hole was filled with a brick partition establishing a niche like element that bears little resemblance to the original inside oda (A2) of the post intervention plan.

(7) The dismantling of a sealed wall opening and establishing a niche like element. A niche-like element could be found in oda (G4) which was sealed according to documentation drawings. And hence to portray previous architectural elements in the zone, the seal was opened and the stones dismantled to establish a hole and a niche-like element within oda (A2) like what was observed in case 6.

(8) Removal of interior timber frame windows between taşlık (G1) and odas (G2) and (G3) which showcased an important phase of the building's life span.

(9) Removal of interior timber doors that connected taşlık (G1) and odas (G2) and (G3).

(10) Replacement of an original interior window with another one featuring different materials and building techniques. Moreover, the element was displaced from its original location into another farther right within the same wall. The original window and the new one are found on the northern wall of oda (G3) of the original plans and oda (A3) of the post intervention plan respectively. It could be seen how the wall was moved so it could align with the cistern (element 17) and thus creating a new experience within the narrow corridor like space. Moreover, the window was changed from being see-through to being encrusted with colored glass portraying an array of flowers. Without thorough research into previous documentation, this alignment of the window with the cistern seems originally intended, for it creates a visual dynamism within the small corridor area.

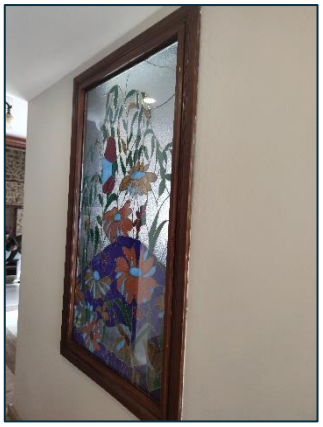


Figure 3.79. Window new replacement at a different location. Taken by the Author.

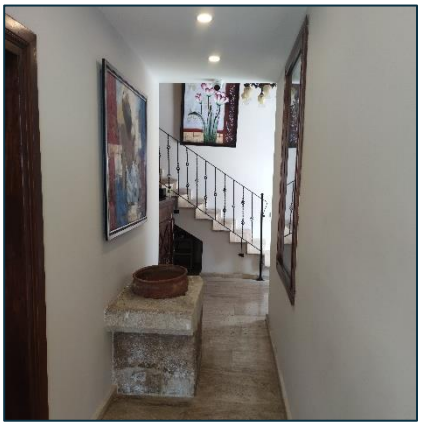


Figure 3.80. New window location facing the cistern. Taken by the Author.

(11) The removal of an exterior window in service space (G5) seen in the original plan. The opening left by the removal was filled with stones using similar masonry techniques, leaving no trace that there was once a window in this position.

(12) The replacement of the service backdoor with a new one showcasing new materials and techniques at a slightly lower position. The service door connecting the service space (G5) with the garden (G6) was removed, then subsequent to the change in the garden's topography, the opening was lowered to be on the same level as the garden. Hence some masonry needed to be removed at the lower end of the opening while other stones filled out the upper portion left by the removal of the door. The replacement is a door of new materials, easily distinguishable amongst all the building elements.

(13) The transformation of the service area fireplace by removing some features and adding others to make it compatible with contemporary use within the kitchen (A9). Some original aspects remain and are discernable while others are changed or added.

(14) The modification of a niche in service area (G5) by changing its length, width and depth to accommodate modern kitchen usage. Masonry was removed to enlarge the opening and kitchen compatible tiles were used to cover the niche.

(15) The removal of the outdoor secondary timber door providing access from the street directly to the haremlik section upstairs.

(16) The removal of the raised platform in odas (G2) and (G3) usually found in the selamlik areas and distinguished them as such. These raised flooring were a prominent feature of this typology of buildings.

(17) Maintenance and cleaning of the cistern, situated at the connection between taşlık (G1) and service area (G5), so that all signs of age, biological growth, and coloring are removed. The cistern was a prominent architectural element within almost every house in Kaleiçi.

(18) Addition of niches within an added wall (Structure element 5) in oda (A2) on both sides of a centrally added fireplace to form an arrangement that is widespread throughout ottoman houses, just not the Antalya, Kaleiçi typology. Hence this addition introduces an architectural feature that is not used in the area and might portray an unauthentic image of the region's architecture.

(19) Addition of a fireplace at a central location in a wall within oda (A2), where no earlier fireplaces were found at this wall or in this zone.

Figure 3.81. Added architectural elements (niches and fireplace). Taken by the Author.

(20) Addition of a door connecting the interior corridor (A5) to the exterior garden (A8). Portions of the masonry wall needed to be taken out in order to make space for the door. The door is timber with a wood veneer covering, which is compatible with other timber elements hence forsaking the possibility of intuitively knowing that the door is a new addition.

Figure 3.82. Added architectural elements (door). Taken by the Author.

Figure 3.83. Added architectural elements (counter). Taken by the Author.

(21) Addition of service doors for the toilet spaces created via the addition of the planimetric area defining element 6.

(22) Addition of counters and semi fixed tabletops that assist in defining areas throughout the post intervention plan like the countertop of the canteen (A3), the reception desk of area (A4), or the kitchen counters of area (A9).

(Mezzanine Plan)

Architectural Elements:

(1) The removal of a raised window at the mezzanine level. This element was removed with the removal of the wall it is contained in.

(2) The removal of a timber door that allowed access from the outdoor stairs (S2) into the mezzanine level and upwards towards the first floor. The hole left by that removal was filled with masonry and brick joined by lime mortar in line with the original wall.

(First Floor Plans)

Vertical Circulation Elements:

(4) Removal of the timber stairs (S1) connecting the ground floor to the first floor.

(8) Addition of concrete stairs (Sn1) at a different location in the building than the original with a different access point on the first floor.

Area Defining Elements:

(1) Removal of interior timber walls forming the kitchen and WC service areas (F7) and (F8) respectively. Hence these service areas are completely removed from the post intervention version of the plan.

(2) Removal of the interior timber wall enclosing the oda (F4) from the sofa (F1). The wall featured a glass design, the oda was a semi closed extension of the sofa hosting the timber extrusion seen in the elevation.

(3) The removal of the interior timber wall separating odas (F2) and (F3). Another wall was established at an offset from the original to make more space for room service areas.

(5) Addition of an array of new walls with a new construction technique and materials. These walls formed the needed bathrooms for the established hotel bedrooms, they also created the main separation between the 4 bedrooms. They are constructed with new materials and the service areas are laid with tiles on the inside

but painted from the outside like all the other walls on the first floor, hence blurring the line of what's new and original.

(6) Addition of new walls with new construction techniques and materials as enclosures for the new stairs (Sn1).

(7) Addition of a new wall with new construction techniques and materials to form the space (B2). This wall cuts off the (B2) space from the main circulation zone (B1), and adjoints it with the bedroom (B6).

Architectural Elements:

(1) Removal of a timber window placed in the small intersection space between the sofa (F1) and the WC (F8).

(2) Removal of a small service timber window that served as the ventilation for the WC (F8).

(3) Removal of a timber door connecting the sofa (F1) to the kitchen (F7).

(4) Removal of an interior timber window that provided visual access between the sofa (F1) to the kitchen (F7).

(5) The transformation of the kitchen (F7) fireplace into an aesthetic rendition of a fireplace for the bedroom (B4) by removing some features and adding others to make it compatible with contemporary expectations. Some original aspects remain and are discernable while others are changed or added.

(6) Replacement of a small service timber window by a bigger upwards sliding one. The small window served as the ventilation for the bath area (F6), while the added one is similar in its properties to the windows marked as architectural elements 11 in the post intervention plans. Hence the replacement did not parallel the original window but took liberties Iin matching it with windows found in other rooms.

(7) Removal of the double hinged timber door that acted as a gate between the stairs (S1) and the sofa (F1). This door intensifies the previously private character of the first floor.

(8) Maintenance and minor repair of a timber door between the sofa (F1) and the oda (F2). The door was coated with a wood veneer bestowing it with a new or restored look.

(9) The displacement of a pair of maintained and minorly repaired timber doors. The doors were moved to an adjacent location after the extensive change in the interior distribution of the spaces within the first floor. The doors were coated with wood veneer for a restored look and their new placement would not be seen as unoriginal except with research into the documentation.

(10) The removal of a timber door that provided access from the sofa (F1) to oda (F4).

(11) Extensive repair of timber upwards sliding windows in odas (F5), (F3), and (F2). Some windows were missing the lower sliding sections and hence couldn't be closed or opened, while others had broken glass or broken timber joints. Hence the extensive repair included the addition of any missing piece to create a working entity and repairing any broken parts. The final element was then coated with a veneer wood polish to give a restored aesthetic look.

(12) Extensive repair of thin timber upwards sliding windows in odas (F5) and (F3). The sliding windows were missing some parts that needed replicas, and other parts needed repair. The element was then coated in a wood veneer for a restored complementary look.

(13) Replacement of the timber windows with new ones using similar materials and techniques. The windows are placed within the timber extruded structure in oda (F4), and visible from the Southeast main elevation. The windows were taken out and replaced with new ones of the same materials and upwards sliding opening method. The new windows were nevertheless of a slightly different dimension as evident by the documentation and restoration drawings. The windows were coated with wood veneer for a finished restored look, complementary with the other timber architectural elements.

Figure 3.84. Timber windows replacement using the original techniques. Taken by the Author.

(14) Replacement of a timber exterior door at the eastern wall of oda (F2) with one of similar materials but different features. The original door was removed and replaced with a new timber one with a glass upper section and a full timber bottom, whereas the original was completely timber. The door provides access from oda (B5) to the terrace (B11) seen in the post intervention plan. The door was likewise covered in wood veneer.

(15) Removal of original timber furniture from oda (F2). This type of furniture constituted a main part of the identity of the oda and was an essential component of the function.

(16) Addition of new niches within the added wall structure 1. These niches are decorative and aren't based in their location or usage on any others that were previously documented. They were finished off with plaster and white paint to be compatible with the rest of the wall surfaces on the first floor.

Figure 3.85. Added niches. Taken by the Author.

(17) Addition of a timber upwards sliding window similar to architectural element 11 windows, and the replacement for architectural element 6 window. The installation of this window in oda (B4) called for structural and material changes to the wall it's embedded in. The window was finished off with a wood veneer and hence does not appear as a later addition without the documentation knowledge.

(18) Addition of interior timber doors to facilitate access between different rooms in newly established areas.

(19) Addition of interior service timber doors to facilitate access to the established bathroom areas for each room.

(20) The addition of a framed entryway between odas (B6) and (B2). This opening called for structural changes to the wall it is embedded in.

- Interventions upon FAÇADE component:

(1) Repair of window protective metal bars which included rust removal and painting.

(2) Repair of decorative metal bars covering the glass portion of the main entrance door and its overhead fixed window. It included rust removal and painting.

(3) Removal of door threshold which creates a stoppage level between the street and the building entrances.

(4) Modification of timber frames that surround the first-floor walls. The modification entails the repair of the timber frames from previous damage, then the addition of some architectural details that aren't originally present. The element is coated with a wood veneer for protection and a restored aesthetic.

(5) Extensive repair of the timber oda projection which includes the structural repair of the main posts and beams, the reconstruction of the timber front and side lower partitions, and the coating of the wood with a protective veneer giving a restored aesthetic.

Figure 3.86. Building A facades showing the timber frames and the timber projection. Taken by the Author.

(6) Removal of wooden planks that cover the upper half of the first-floor windows for privacy and direct sunlight protection.

(7) Addition of a low stone skirting all around the building.

(8) Addition of advertisement signs which block off the masonry behind them.

(9) Addition of spotlights.

(10) Addition of steel frames around the building at the upper portion of the ground floor. These horizontal frames support the new additions attached to it and enable the passing of electrical wiring to the mentioned elements. The metal elements are covered with artificial vines and vegetation.

(11) Additions of audio speakers.

(12) Addition of shading foldable horizontal curtains.

(13) Addition of deck lights.

(14) Addition of hung advertisement sign.

(15) Addition of brick chimneys.

(16) Addition of roof water gutter.

(17) Removal of window protective metal bars.

(18) Removal of roof brick eave design.

(19) Addition of door thresholds as separators between the indoor and the courtyard.

(20) Addition of deck lights.

Figure 3.87. Façade additions. Taken by the Author.

(21) Addition of timber frames surrounding the first-floor walls. These frames were not originally installed at the southwest elevation; however, they were added to unify the style established at the main elevation. The timber was coated with wood veneer for protection and style unity.

(22) Addition of spotlights.

(23) Addition of air conditioner external unit.

3.3.2. Supplementary Analysis from Buildings B, C, and D

Buildings B, C, and D are located within the same region as building A towards the southwestern sector of Kaleiçi. Examining these buildings, we see a very similar pattern in the interpretation of interventions and the end goal of the conservation. The image that the stakeholders had in mind for this area and what the built environment became as a result of these interventions is very clear. Like Building A these buildings featured intervention across all five of their components, the lot, mass, structure, plan, and the façade. The goal of these interventions was guided by their rehabilitation as a hotel, while bestowing them with the unified "restoration" aesthetic prevalent throughout the area.

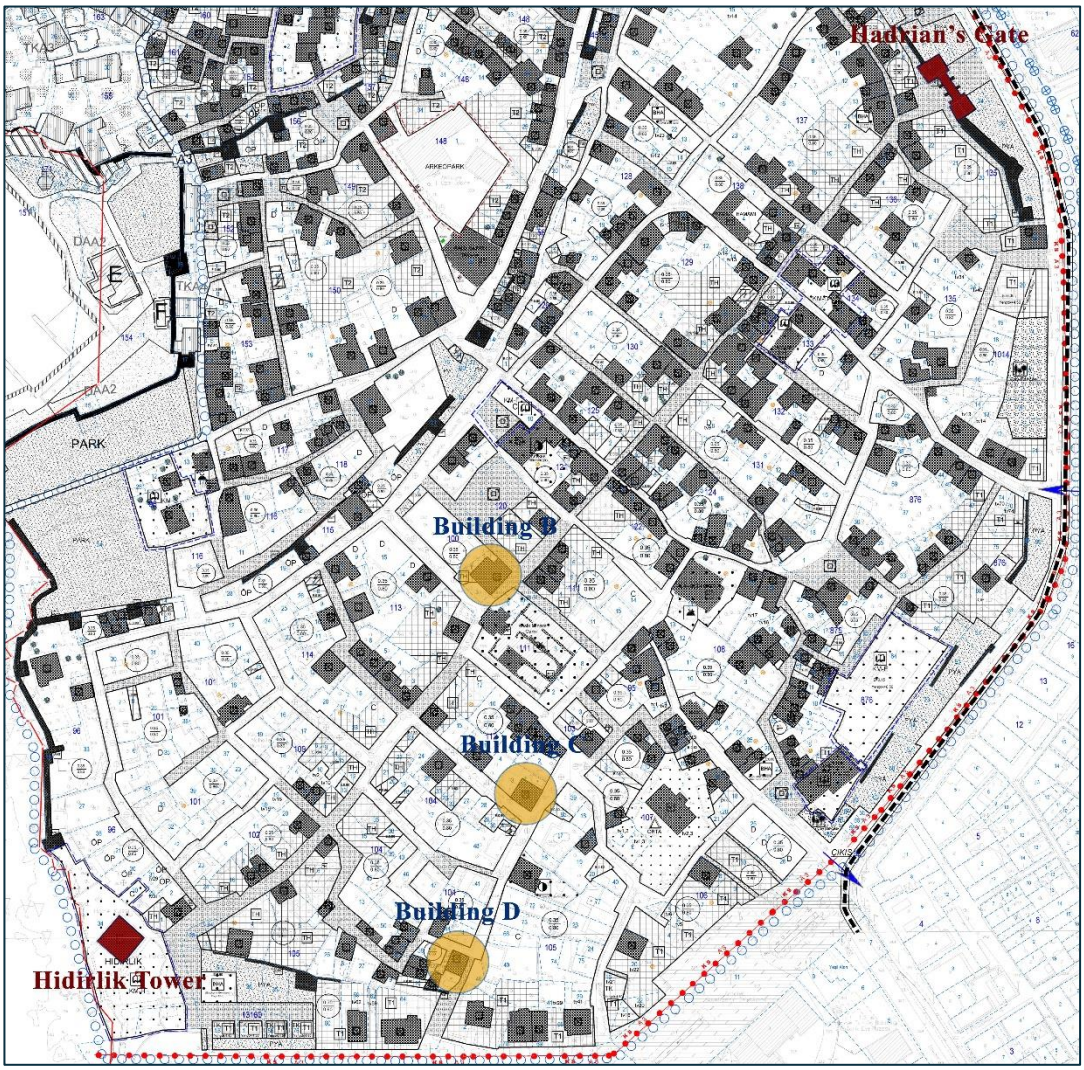


Figure 3.88. Location of buildings B, C, and D within the western end of Kaleiçi. Prepared by the Author.

A similar approach to conservation throughout these buildings produced a pattern that can be perceived in the area. The lot had a similar treatment across these building where they all had a level of addition or removal of primary and secondary elements and an alteration to the courtyard level and tiling materials. It was noticed that since the approach was similar from a functional change and conservation goal standpoint, coupled with large similarities in the building typology and construction techniques (chosen on purpose as stated in chapter one) the interventions took a similar route.

The mass interventions likewise remained consistent across the buildings with the changes occurring on a small scale and encompassing small adjacent buildings to the main mass, instead of overbearing mass changes that dramatically affect the site. Building A had the most mass interventions across all the studied examples.

Examining the structure, it was quickly pointed out that there are intervention similarities due to the parallels across the buildings between the original techniques and materials, the change in function that occurred later, in addition to all the buildings existing within small proximity and hence facing similar challenges and strain across time. There are a set number of ways to interact with a limited number of materials, the few that weren't covered introduced in building A are seen in the other buildings. The main feature across the building is the manner in which they approached the exterior walls. Across the area the walls were uncovered to expose their construction materials even in buildings where this approach is not native to.

As for the plan, the similarities become very apparent. The plan dimension within this thesis is more oriented towards the change in spaces and circulation and since all the buildings were originally heritage residential buildings turned hotels, a similar pattern of removal/additions were applied. The similar room patterns and space layouts encouraged a comparable approach towards dealing with the partitions, stairs, and architectural elements.

The facade is one of the more docile dimensions when it comes to intervention types, which reinforces the observations made by other studies mentioned at the beginning of chapter three. The façade had minimal intervention to keep most of its features intact and authentic to the area.

Even with these similarities there still exists a set of unique interventions highlighted by buildings B, C, and E which are too important not to consider within the intervention types.

3.3.2.1. Building B

Figure 3.89. Building B entrance elevation. Taken by the Author.

As stated, building B belongs to the same typology as the other buildings hence shares most of the interventions discussed throughout the analysis of building A. The main points that add another layer of intervention are the structure and the lot, with the structure providing a look at the second typology of masonry work in Kaleiçi.

Lot Interventions:

Within the lot of building B it is noticed that new natural elements predominantly trees have been planted. These trees were not part of the original lot organization and hence are considered as a new addition to the component.

Figure 3.90. Planted trees within the lot of Building B. Taken by the Author.

Structure Interventions:

The first new intervention within building B regarding the structural component is seen within the basement of the building. Most of the buildings in Kaleiçi do not have deep basements with the space to facilitate functions. In building B though this type of cellar basement exists, and it has been rehabilitated into a spa area. This change was made possible through the alteration of the masonry thick foundation walls. Alteration of these walls entailed the addition of openings when there were previously none, doors or passageways were hence installed to enable movement between the different basement compartments.

It is relevant to note that through this building it is clear to see the reference that the conservation architect of Building A took whole reconstructing the demolished terrace above the shop section. Building B showcases a terrace of a similar design to that of the documentation drawings.

Figure 3.91. Added doorway within the previously closed masonry wall in Building B. Taken by the Author.

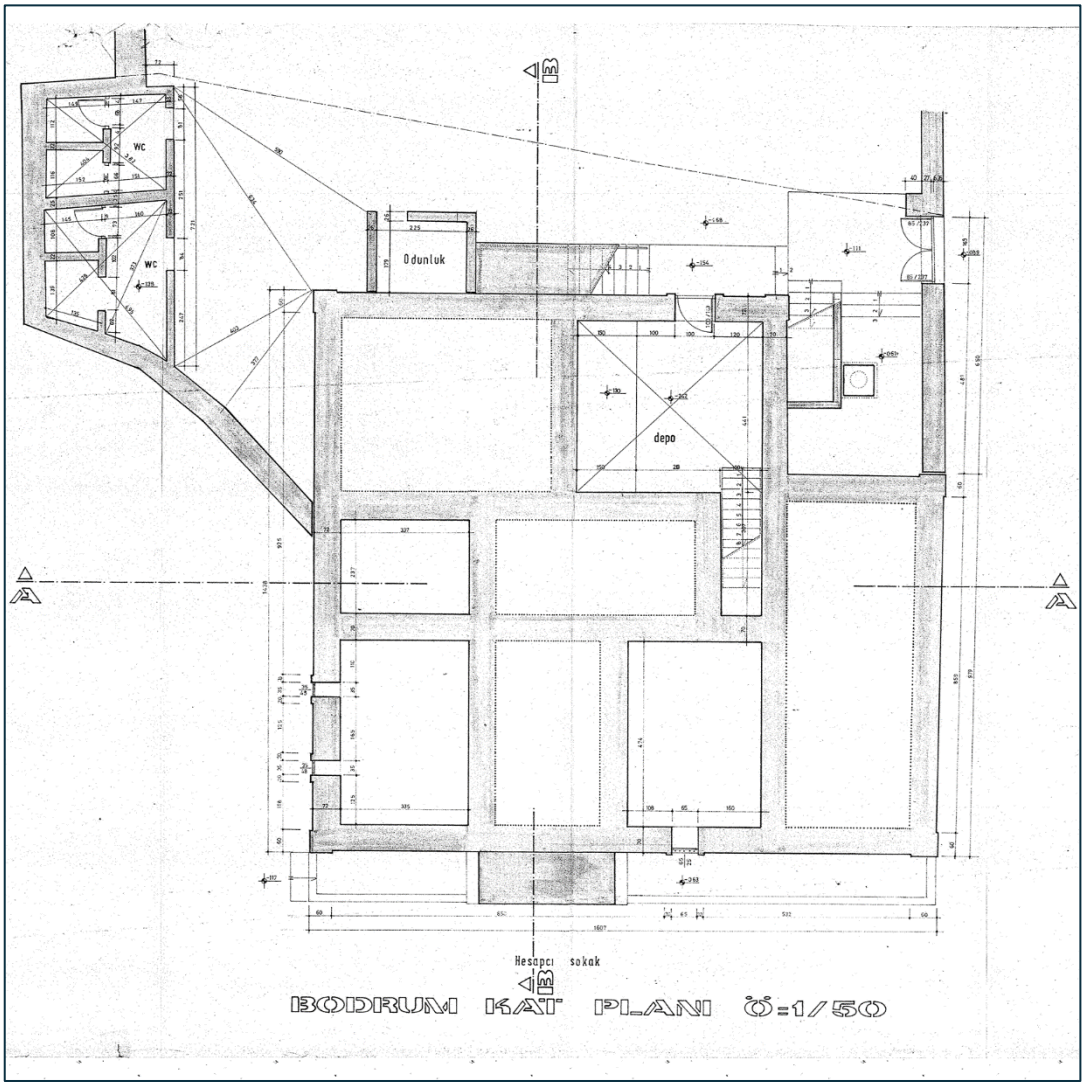


Figure 3.92. Original plan of the basement of Building B. Retrieved from the official documentation drawings of Building B.

The original basement plan does not show a major part of the inner compartments' details, hence the usage of the dotted lines to approximate the depth of the basement walls. This also represents the separate nature of these compartments and the lack of any passageways between them. On the other hand, the restoration plan elaborates about the added pathways and the actual compartment sizes and dimensions. This clearly showcases the manner in which the walls were altered through removal of materials and the installation of architectural elements.

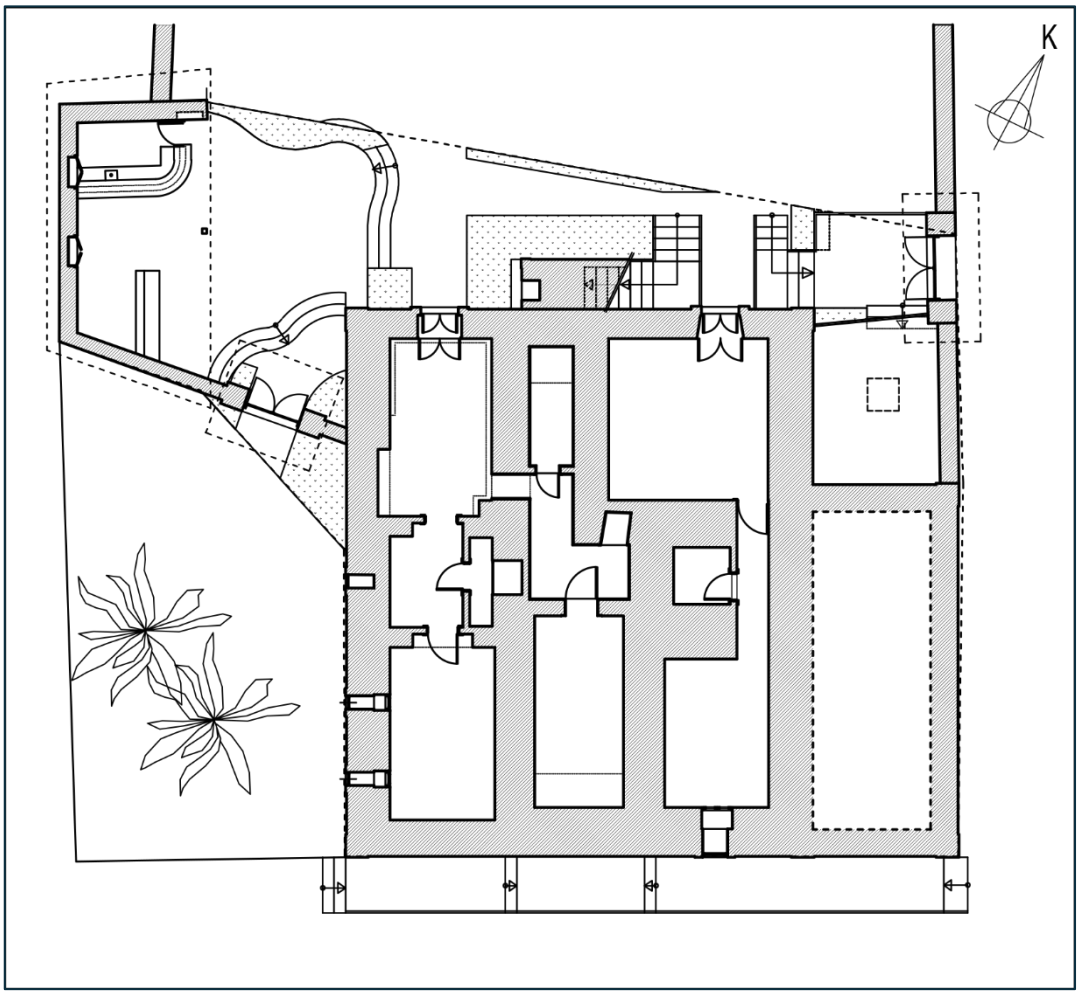


Figure 3.93. Restoration plan of the basement of Building B. Retrieved from the official restoration drawings of Building B.

The second structural intervention exclusive to this typology of houses is the maintenance of the exterior fine cut masonry wall. Since this from elevation wall was originally constructed in this fashion, the stones were always exposed. Very minimal repair is needed for said construction due to the periodic maintenance of the stones and the geometric fashion of their execution. The stones were not as harshly cleaned as seen in other examples and hence maintenance is the clear intervention type applied to this masonry wall.

Figure 3.94. Perspective 1 of the entrance elevation of Building B. Taken by the Author.

Figure 3.95. Perspective 2 of the entrance elevation of Building B. Taken by the Author.

3.3.2.2. Building C

Building C is closer to Building A than B both in the construction technique of the exterior walls and the size of the building. Nevertheless, this building showcases two elements that feature intervention types not clearly perceived in Building A.

Structure Interventions:

Floor planks and beams are a clear part of the building structural component and are showcased in Building C. The timber parts were repaired then painted with a wood veneer coating for protection and a restored aesthetic.

Figure 3.96. Ceiling structure and planks in Building C. Taken by the Author.

Plan Interventions:

Building B showcased the repair of many of its original elements instead of removing them and adding new ones at the same or different location. For the most part the general layout of this building was used as is without the relocation of its elements. The stairs are one of those elements where it was reused; the surface planks were repaired, the structural aspects consolidated, and the entire timber elements coated with wood veneer for protection and the restored aesthetic.

Figure 3.97. Timber stair in Building C. Taken by the Author.

Figure 3.98. Perspective 1 of Building C. Taken by the Author.

Figure 3.99. Perspective 2 of Building C. Taken by the Author.

3.3.2.3. Building D

Building D is slightly different from the other buildings in terms of the spaces design. There are multiple rooms in this building that are elaborately supplemented with architectural elements. Furthermore, the construction methods used in this building are slightly different than the others; from the exterior the use of bricks is more prevalent in addition to the usage of masonry all throughout the building instead of constricting it on the ground floor. Nevertheless, the intervention types to the masonry in this building are compatible with the methods examined in the other buildings.

Figure 3.100. Front elevation of Building C. Taken by the Author.

Structure Interventions:

The standout intervention in Building D is the addition of an elaborate structure within one of the rooms to take advantage of the high ceiling. This mezzanine floor was built using timber construction and was coated in white paint to separate it from the original timber elements. This distinction is important to avoid any mix up between the original and added elements.

Figure 3.101. Floor planks of the timber addition in Building D. Retrieved on 2/02/2024 from http://palmhouse17.com/

Figure 3.102. Stairs of the timber addition in Building D. Retrieved on 2/02/2024 from http://palmhouse17.com/

Figure 3.103. Timber mezzanine addition in Building D. Retrieved on 2/02/2024 from https://tr.hotels.com/ho608497408/palm-house-17-oriental-misafir-evi-antalya-turkiye/

Figure 3.104. Mezzanine addition in Building D. Retrieved on 2/02/2024 from http://palmhouse17.com/

Figure 3.105. Back elevation perspective of Building D. Taken by the Author.

3.4. Concluding the Intervention Types Upon Heritage Residential Buildings in Antalya, Kaleiçi

Intervention magnitudes, as explained in the second point of the second part of chapter 2 dubbed “Intervention Magnitudes on Residential Buildings”, signify a specific type of intervention acted upon a building element or a set of elements that changes their physical characteristics and hence their use, perception, and values. It is not an umbrella term that illustrates the action done to the building as a whole or part during the conservation project but the approach taken towards specific elements. Through the examination of these detailed types one can study the effect of specific approaches on the building elements separately and deduce the effect they have on the building component they belong to.

An intervention type can be deduced by clearly understanding the changes made to elements in each of the five building components. Within the same component category, elements of equivalent significance that underwent analogous interventions are grouped together under an intervention type.

Based on the Intervention analysis, done on the main building A and the supplementary buildings B, C, and D in chapter three part three of this thesis, where the building elements were analyzed using the pre and post intervention plans and elevations, along with the documented previous photographs and the new ones taken on site by the author, interventions of similar types are grouped together within the same building component.

All intervention types specified below can be referenced through the drawings of building A through the intervention number except if mentioned otherwise. The name of building B, C, or D is mentioned next to their relative intervention type that was concluded through the analysis of those supplementary buildings. Numbering the intervention types acts as coding to distinguish between the different intervention types and isn’t indicative of their intervention magnitude towards the values.

The lot takes into consideration the connection of the building with the street, the connection between the courtyard and the street, the interaction between the building and the courtyard, and finally the courtyard itself. Each of these aspects hosts an array of elements that are grouped into three main sets: Topography, Built Elements, and Natural Elements. This categorization signifies that a change to the lot can happen on either one of those levels. Hence based on the intervention analysis the intervention types within the **lot** component can be categorized into:

- Topography:

L1: Level alteration of sloped courtyard – This type includes intervention number 5 of the lot intervention analysis and is signified by the changing of the topography of the courtyard in order to make it all equal on one level. This may include the removal of earth or the addition of filler to level the courtyard. The term alteration signifies a change that affects the character of the element. In this case the topography change affected multiple elements dependent on the original form of the topography, hence the use of the word alteration.

- Built Elements:

L2: Removal of a primary lot element – The type shown in lot interventions numbered 1,2,3, and 6. A primary lot element is defined as an essential part of establishing the connection between the building, street, and courtyard, which without the original identity and function of the lot are lost and can't be fulfilled or perceived. For example, the removal of the lot wall around the courtyard seen in interventions 3 and 6 nullifies one of the most important features of the courtyard in the Kaleiçi heritage residential buildings: privacy. The courtyard within these lots were seen as a private section of the house to be easily accessible to the household without outside interference, hence the removal of these walls changes an important culturally significant element in the building and its usage history, an element that held a defining characteristics to the Antalya, Kaleiçi house.

L3: Removal of a secondary lot element – The type shown in lot intervention 4 and 7, characterized by the complete removal of a lot element that doesn't have a large impact on the authentic cultural usage of the lot. They are still nevertheless a physical aspect of the lot and are contributors to understanding the history, lifestyle, and building techniques of the original users.

LA1: Addition of a major lot element – Which is an addition that covers a large span of the courtyard or affects the lot in a significant way in terms of function and usage. This type of addition can be seen in the case of lot intervention 10, where new tiles were used to cover the entirety of the courtyard and hence remove any sign of previous usage or form. This addition not only affects the physical setting in a considerable way that the previous condition is not discernible anymore.

LA2: Addition of a minor lot element – The type shown in lot interventions 11, 12, and 13 where the additions of some architectural elements took place to fulfill a certain task at a specific location which doesn't affect the lot as a whole. An example can be seen in intervention 13 where railings were installed towards the west side of the courtyard in order to protect from the height drop of the neighboring lot.

- Natural Elements:

L4: Removal of a tree – Shown by lot intervention number 8 where trees which are a main element of courtyards in Antalya, Kaleiçi are removed completely from the lot.

L5: Relocation of a tree within the courtyard – Characterized by lot intervention 9 in which a tree previously located in the courtyard is moved to a different location within the same lot.

LA3: Addition of a tree – This type of intervention was observed in Building B where new elements were added to the courtyard to add the density of the natural elements.

Component		Code	Intervention Types	Intervention Numbers
Lot	Topography	L1	Level alteration of sloped courtyard	5
	Built Elements	L2	Removal of a primary lot element	1-2-3-6
		L3	Removal of a secondary lot element	4-7
		LA1	Addition of a major lot element	10
		LA2	Addition of a minor lot element	11-12-13
	Natural Elements	L4	Removal of a tree	8
		L5	Relocation of a tree within the courtyard	9
		LA3	Addition of a tree	Building B

Table. 3.2. Intervention types of the Lot component. Prepared by the Author.

The mass is a building component that encompasses the building blocks that constitute the built whole. That includes the main building and any adjacent masses in the lot where a function can take place in. Based on the intervention analysis of building A the intervention types related to **mass** can be categorized into:

M1: Removal of a supplemental small mass – Which is portrayed as mass intervention number 1 on the intervention analysis plans. This intervention type entails the removal of a small storage unit or otherwise from the lot either connected or disconnected to the main building mass. To be considered as a supplementary small mass, the mass shouldn't have a main function within the hierarchy of spaces and hence its removal won't cripple the main functions of the building.

MA1: Addition of an adjacent medium mass with new materials and glass – Signified by mass intervention 2 on the intervention analysis plans and showcases the construction of a mainly glass see through mass with metal frames. To fall under this category the mass should be less than 60 percent of the total main building volume and see through to not completely cover the architectural features behind it. The addition is attached to one of the building sides and its maximum height equals the height of the building's round floor ceiling. The new materials strike a distinction between the original mass and the added one without being seen from all angles and dominating the original mass.

MA2: Reconstruction of a collapsed small mass with aged materials and a new design – The type shown in the mass intervention number 3, where due to some building clues and similar examples in the site a terrace is thought to have existed on top of the shop area. This terrace was gone with time and no original plans or pictures are found of it and hence the reconstruction is done using personal designs derived from a few similar examples throughout Kaleiçi. The construction even though possessing a small volume is cladded with aged red bricks which is a material used in construction and hence giving the addition a false sense of authenticity when looking at the building as a whole without the proper knowledge. This action can be argued to be categorized as falsifying history due to the lack of distinction between the original mass and the added section and hence has a major effect on the physical setting and the mass authenticity.

Component	Code	Intervention Types	Intervention Numbers
Mass	M1	Removal of a supplemental small mass	1
	MA1	Addition of an adjacent medium mass with new materials and glass	2
	MA2	Reconstruction of a collapsed small mass with aged materials and a new design	3

Table. 3.3. Intervention types of the Mass component. Prepared by the Author.

The structure component of the building encompasses all physical elements related to construction techniques and materials of walls, columns, roofs, or floors. Hence every change in material or addition of a new material to the building can be categorized as a structure change, furthermore more importantly any change to the construction technique or structure falls under this building component. Based on the intervention analysis of building A the intervention types related to **structure** can be categorized into:

S1: Removal of a structure or structural element – Perceived on the intervention analysis plan as structure intervention 1 at the ground floor, structure intervention 2 at the mezzanine level, and structure intervention 8 on the first floor. It encompasses the removal of any structural element, for example the removal of the mezzanine floor or the removal of the tile water redirection arrangement over an entrance.

S2: Modification of a timber interior wall – Marked on the intervention analysis plan as structure intervention 2 at the ground floor level. The modification is characterized by a change made to an architectural element, such as an opening, embedded in the wall which resulted in it being moved to another location within the same wall. Hence the architectural element is still present but within a different location adjacent to its previous position. The timber wall experienced a change to its structure due to this modification mainly the addition or removal of structural elements, removal or addition of covering timber slates, and the plastering and painting of the wall.

S3: Repair and cladding of a masonry wall with new materials – Characterized in the intervention analysis plan as structure intervention 9 at the ground floor level. This type included the repair of a masonry wall such as reinforcing the lime mortar joints, fixing any gaps in the structure, or mending cracks. Furthermore, the walls were covered with tiles in order to be suitable for use in their respective space.

S4: Replacement of an element with different materials – Seen in the intervention analysis plan as structure interventions 3 and 4 at the ground floor level and 1 at the first floor. This type of intervention is defined as the removal of an original element and replacing it in the exact position with a structure of different materials and construction technique. This could be seen at the ground floor level with the structure intervention 4 in which a wall was an entire wall was removed and replaced by a new wall construction hosting new materials.

S5: Replacement of an element with similar materials – Characterized by structure interventions numbers 5 and 7 on the ground and first floors of the intervention analysis plans respectively, and on the elevation's intervention analysis drawings as structure intervention 1 and 2. It is defined as the removal of an original structural element and replacing it within the same location by a new structure of similar materials and comparable construction techniques. Opposed to S4, S5 may cause some discrepancies in establishing what parts of the structure is original or additions due to the close likeness these structures hold to the originals.

S6: Masonry wall maintenance, cleaning, and removal of later added outer layers - Characterized by structure interventions numbers 7 and 10 on the ground and first floors of the intervention analysis plans respectively. This type of intervention involves the maintenance of the wall to ensure its proper structural and materials condition, furthermore, the outer layers of the walls namely the paint and plaster layers are removed to expose the masonry for a more rustic visual. In Kaleiçi rough cut stone masonry is covered with plaster and paint while fine cute stones are not, this interventions renders the rough-cut stone exposed similar to the other typology which isn't its intended form. The paint layers that are removed are not original as they are renewed periodically for aesthetic reasons. Hence the removal of these layers does not affect original layers of wall covering. The masonry is then strongly cleaned using chemicals to ensure the removal of any coloring, age signs, or biological growth this ensuring a restored and new aesthetic,

S7: Masonry wall partial reconstruction, repair, and cleaning – Seen as structure intervention 8 throughout the ground floor intervention analysis plan. It is characterized by the reconstruction of the partial sections of the wall which had collapsed over time or left empty by the removal of an architectural element embedded within. The masonry is constructed using the same materials namely stone, bricks, and brick slates, while other areas are repaired to ensure structural strength. There is very little discernable difference between the original and reconstructed sections due to the cleaning process that the masonry underwent, unifying the aesthetic of the entire structure.

S8: Alteration of walls by adding or removing architectural elements – Seen throughout the second floor of intervention analysis plans numbered as 2, 3, 4, 5, and 6 of the structure interventions. This intervention type is also seen throughout the basement of building B. The intervention type encompasses the addition of architectural elements into the wall structure which entails the removal of materials and restructuring of the element. Likewise, the removal of an architectural element calls for the filling of the gap left by the removal. Hence in the case of timber walls structural elements are added, covering timber planks are installed and new layers of mortar and paint are applied. In the case of masonry walls the structure is reinforced after the removal of the material, the walls are repaired where needed and the required finishing is installed in accordance with the other intervention types. Both approaches cause alterations to the structure of the walls, the fill materials, and the covering layers.

S9: Timber wall maintenance, repair, and application of covering layers – The intervention type marked as structure intervention 9 through the first-floor plan, it encompasses the simple repair or maintenance of the timber walls like remove of mold, the addition of strengthening braces, or replacing some decayed wood to ensure proper structural strength. The walls are then coated with new mortar and paint.

S10: Consolidation and reconstruction of a timber wall – Seen on the first floor of the intervention analysis plan as structure intervention 11. The intervention type is characterized by the need of major repair or reconstruction efforts in order to ensure working order. Walls in need of this intervention might have a large portion if their surface deteriorated or destroyed. Some structural repair might be needed in order to ensure the strength of the structure and most importantly a large proportion of the covering timber bağdadi have to be replaced or added. The covering plaster and paint layers are redone over the entire surface.

S11: Maintenance of a fine cute masonry wall – This intervention type is prevalent in building B where the outer masonry walls were constructed using fine cut stone. This typology of masonry work does not entail the addition of covering layers in Kaleiçi and hence the stones were maintained and softly cleaned without the removal of all age signs.

S12: Repair of timber floor beams and planks – Examined in building C, this intervention entails the repair of the timber floor (ceiling) structure and covering materials. The repair ensures structural integrity, and the timber elements are coated in wood veneer for protection and a restored aesthetic.

SA1: Addition of a secondary structural element – Perceived on the intervention analysis plan as structure intervention 6 at the ground floor and structure interventions 12 and 13 at the first floor. It is characterized by either the addition of a small structure to fulfil a certain structural role that affects the immediate zone it is present in and not a large span of space, or by the addition of a new structure which is embedded or hidden to support a small area of an already found space. An example of the first is the brick partitions installed in the ground floor plan to fill the holes created as seen in structure intervention 6, while an example of the second would be the structure of the added terrace which is hidden and only supports that specific area without affecting other zones.

SA2: Addition of a new interior structure – Perceived in building D where a new timber construction was added when there was none. The addition consisted of stairs and a mezzanine level slab in order to expand one of the rooms to provide more space. The addition distinguished itself from the original timber construction by being coated in white paint. Hence this intervention type is characterized by the addition of a structural element that isn't based on previous documentation and is large enough to facilitate a function.

Component	Code	Intervention Types	Intervention Numbers
Structure	S1	Removal of a structure or structural element	GF: 1 | M: 2 FF:8
	S2	Modification of a timber interior wall	GF: 2
	S3	Repair and cladding of a masonry wall with new materials	GF: 9
	S4	Replacement of an element with different materials	GF: 3-4 FF: 1
	S5	Replacement of an element with similar materials	GF: 5 | FF: 7 | E: 1-2
	S6	Masonry wall maintenance, cleaning, and removal of later added outer layers	GF: 7 FF: 10
	S7	Masonry wall partial reconstruction, repair, and cleaning	GF: 8
	S8	Alteration of walls by adding or removing architectural elements	FF: 2-3-4-5-6 | Building B
	S9	Timber wall maintenance, repair, and application of covering layers	FF: 9
	S10	Consolidation and reconstruction of a timber wall	FF: 11
	S11	Maintenance of a fine cut masonry wall	Building B
	S12	Repair of timber floor beams and planks	Building C
	SA1	Addition of a secondary structural element	GF: 6 FF: 12-13
	SA2	Addition of a new interior structure	Building D

Table. 3.4. Intervention types of the Structure component. Prepared by the Author.

The plan component in heritage residential houses within Kaleiçi takes into consideration three categories that affect the whole, each unique in their elements and their impact on the space. These three categories are the vertical circulation elements predominantly the stairs, area defining elements which are walls and partitions that make up the usable spaces within a floor, and the architectural elements defined as the unique planimetric details attached to a space possessing a certain form, function, and architectural character enforcing the architectural style of the building and highlighting the functions within that space. Some examples of the architectural elements in heritage residential buildings within Kaleiçi are the cisterns, niches, and windows. Together these three elements determine the zones of the house, the function of the spaces, and the circulation within the building in order to determine the daily activities and the effect of the function change on the building. Based on the intervention analysis of building A the intervention types related to **plan** can be categorized into:

- Vertical Circulation Elements:

V1: Removal of stairs – A plan intervention perceived as numbers 4 and 5 at the ground floor of the intervention analysis plan and number 4 at the first floor. This type entails the complete removal of the stairs previously used in the building and hence greatly impacting the physical setting and social environment within the building.

V2: Repair of stairs – Seen in building C where the stairs were not removed and new ones weren't added, the original one was simply repaired to ensure proper functioning and structural strength. The timber stairs were then covered with wood veneer for protection and a restored aesthetic.

VA1: Addition of stairs – Seen as plan interventions 7 and 8 at the ground and first floors respectively of the intervention analysis plans. A new completely new addition to the building with new materials, techniques, and usually at a different location than previous vertical circulation elements.

- Area Defining Elements:

W1: Removal of interior partitions – A plan intervention seen within the intervention analysis plans as numbers 1, 2, and 3 in the ground and first floors. This intervention involves the partial or complete removal of interior partitions in order to rearrange the interior spaces, zones, and circulation. The interior partitions in this case are timber frame wall constructions.

WA1: Addition of interior partitions – Seen as plan interventions 6 on the ground floor and 5,6, and 7 on the first-floor plans of the intervention analysis drawings. It is characterized by the addition of walls to establish spaces as needed by the new function assigned to the building.

Component		Code	Intervention Types	Intervention Numbers
Plan	Vertical Circulation Elements	V1	Removal of stairs	GF: 4-5 FF: 4
		V2	Repair of stairs	Building C
		VA1	Addition of stairs	GF: 7 FF: 8
	Area Defining Elements	W1	Removal of interior partitions	GF: 1-2-3 FF: 1-2-3
		WA1	Addition of interior partition	GF: 6 FF: 5-6-7

Table. 3.5. Intervention types of the Plan component Part 1. Prepared by the Author.

- Architectural Elements:

A1: Replacement of elements with similar materials but different techniques – Seen as space architectural elements 1 on the ground floor and 6 and 14 on the first floor of the intervention analysis plans. This intervention is illustrated by the removal of the original element then replacing it with another one that has the same function and is constructed using the same material but different techniques.

The new elements are portrayed to pass as an original element by presenting them as a restored element similar to other original building elements that have been restored. An example of this approach is the replacement of all the original upwards sliding windows on the ground floor numbered 1 by new hinged windows that look vintage and rustic all while being treated with wood veneer like other restored timber elements.

A2: Replacement of element with similar materials and comparable techniques – Characterized by plan interventions numbers 2 and 13 on the ground and first floors of the intervention analysis plans respectively. This intervention entails the removal of an original element then placing a new element in its place with the same materials and restored finished but slightly different design. The new elements could be mistaken for originals based on the manner in which they are presented. The difference in design can be seen through parts of the element such as the lower or upper parts of a door design.

A3: Replacement of an element with different materials – Characterized by plan interventions numbers 3 and 12 on the ground of the intervention analysis plans. It is defined as the removal of an original element then replacing it with a new architectural element that does the same function but using different construction techniques and materials that are easily distinguishable from the original parts of the building.

A4: Modification of opening size and replacing element with new materials – Seen through plan intervention 4 on the ground floor intervention analysis drawings. The intervention type is highlighted as the removal of previous elements within an opening, enlarging this opening by removing materials within a wall, then installing a new element with new materials and techniques to fulfill a purposes produced by the new function.

A5: Maintenance of an element with function change – Marked as numbers 5 and 17 of the architectural elements plan interventions of the intervention analysis drawings. This intervention type is one of the least invasive interventions where an architectural element does not undergo any changes to its form or materials. The element materials are maintained to ensure the absence of any underlying problems. Furthermore, the elements are chemically cleaned to remove coloration, biological growth, and age signs. Finally, it is perceived that these elements do not serve their original functions and mostly kept bare to showcase architectural elements of the building's time period.

A6: Niches removal and replacement with new materials and techniques – Portrayed by plan architectural element intervention 6 in the ground floor intervention analysis plan. It is characterized by the dismantling of the original form and building blocks of the element then re-establishing a rough form of the original through new materials and techniques. An example of this is mentioned architectural element 6 where the original niche was destroyed and then a version of it was rebuilt using bricks.

A7: Element trace replacement with new materials and techniques – Architectural element 7 in the ground floor intervention analysis plan. Characterized by the breaking down of a trace to previous element in order to shape it into a new element and finishing it off using new materials.

A8: Removal of an element – A plan intervention perceived as architectural elements numbers 8, 9, 11, 15, and 16 at the ground floor of the intervention analysis plan, numbers 1 and 2 at the mezzanine, and 1, 2, 3, 4, 7, 10, and 15 at the first-floor level. Evident by the complete removal of an architectural element without providing any alternatives.

A9: Relocating and replacing of an element with different materials and techniques – Portrayed by plan architectural element intervention number 10 in the ground floor intervention analysis plan. This type consists of three combined steps, the first being the removal of a previous architectural element, which in this case is an interior timber frame window. The second change is the relocation of the element position into a different local within the same wall while sealing the previous one, and the third is to insert the newly fabricated element into the new opening. The new element is constructed using modern techniques.

A10: Transformed fireplace – Seen as architectural element interventions 13 and 5 in the ground and first floor intervention analysis plans respectively. Transformation is defined as "a change physical aspects in an old element in order to give it a new meaning and use and make it complementary to contemporary needs." Hence the fireplaces are involved in actions that changed their physical aspects by either addition or subtraction to mold them into a different version with a use that suits the needs of the new function within the contemporary needs.

A11: Modification of niche dimensions – Perceived as plan architectural intervention 14 within the ground floor intervention analysis plan. Where modification is defined as "making changes to an element to facilitate a function change without major changes to materials or construction techniques." The niche in this case had its parameters and volume changed by the removal of material in order to expand the usable area within, moreover it was covered by tiles that's better suited for the new function within the area it occupies.

A12: Maintenance of an element without function change – Perceived as plan architectural intervention 8 within the first-floor intervention analysis plan. Dissimilar to intervention type A5 this intervention only relates with elements that did not lose their original function post intervention, like doors and windows. The type includes minor repair and maintenance to the element to stay in functioning order then cleans or varnishes the surface for a restored aesthetic.

A13: Maintenance and relocation of a timber door – Perceived as plan architectural intervention number 9 within the first-floor intervention analysis plan. It includes the mentioned maintenance treatment plus the added displacement which is the change in location for the element from its original position to a new one within the same floor plan due to planimetric changes.

A14: Consolidation of timber windows – Seen as architectural element interventions 11 and 12 in the first-floor intervention analysis plans. Major repair prerequisites that the element isn't in a function order anymore, and needs changes, replacements, or repair to its basic elements to return to working order. Hence, some aspects might be replicated and inserted into the element to create a functioning whole along with repair and patching work. The element is then coated with wood veneer for protection and the finished restored look.

AA1: Addition of a new element – Seen as architectural elements interventions 18, 19, 20, 21, and 22 on the ground floor plan and 16, 17, 18, 19, and 20 at the first-floor plan. This intervention defines an addition of a completely new element in a location where there were none before. These additions cross the borders of realizing original from additions due to some of them being constructed using original materials and techniques, hence masquerading as originals which affects the authenticity of the building plan.

Plan	Architectural Elements	A1	Replacement of elements with similar materials but different techniques	GF: 1 FF: 6-14
		A2	Replacement of element with similar materials and comparable techniques	GF: 2 FF: 13
		A3	Replacement of an element with different materials	GF: 3-12
		A4	Modificaction of opening size and replacing element with a new element	GF: 4
		A5	Maintenance of an element with function change	GF: 5-17
		A6	Niche removal and replacement with new materials and techniques	GF: 6
		A7	Element trace replacement with new materials and techniques	GF: 7
		A8	Removal of an element	GF: 8-9-11-15-16 | M: 1-2 | FF: 1-2-3-4-7-10-15
		A9	Relocating and replacing of an element with different materials and techniques	GF: 10
		A10	Transformed fireplace	GF: 13 FF: 5
		A11	Modification of niche dimensions	GF: 14
		A12	Maintenance of an element without function change	FF: 8
		A13	Maintenance and relocation of a timber door	FF: 9
		A14	Consolidation of timber windows	FF: 11-12
		AA1	Addition of a new element	GF: 18-19-20-21-22 | FF:16-17-18-19-20

Table. 3.6. Intervention types of the Plan component Part 2. Prepared by the Author.

The facade component of the building relates to the visible exterior of the building and the main elements that make up this façade. It is the initial component that people are faced with even when not experiencing the interior of the building. Hence it is an important aspect of understanding the architectural character of the building. Aside from the exterior walls that are discussed in the structural component and the windows that are explored within the architectural elements part, the façade includes all other exterior aspects on the building's exterior and the changes that they underwent that affected the physical setting of the **façade** and the social environment encompassing it.

F1: Repair of façade elements – Perceived as façade interventions 1 and 2 within the elevation's intervention analysis drawings. Simple repair includes minimal change to the element to stop further damage and apply protective layers for future proofing.

F2: Removal of façade elements – Marked as interventions 3, 6, 17, and 18 of the façade intervention analysis elevation drawings. This type is characterized by the complete removal of the element without providing a replacement or showing a sign of the presence of a previous element. This is done to achieve a style unity or to get rid of unwanted elements within the new design.

F3: Modification of façade timber frames – presented by facade intervention 4 in which timber frames are not only repaired to ensure the integrity and strength of the materials, but architectural details and decoration are added in order to achieve a specific expected architectural character. It is seen that these architectural details are added even without proof of their previous existence, with the goal being aesthetic and style unity.

F4: Consolidation of façade timber elements – Seen through facade intervention 5 where timber elements undergo structural repairs, reconstruction, and wooden veneer coating.

FA1: Addition of a modern façade element – Characterized by façade interventions 7, 8, 9, 10, 11, 12, 13, 14, 16, 19, 20, 22, and 23. It is defined as the addition of a modern quality of life additions to the façade to fulfil a certain function. These additions range from lights, speakers, gutters, etc.

FA2: Addition of an aesthetically matching element – Characterized by façade interventions 15 and 21. This intervention type represents the addition of elements that match the aesthetic properties of original elements in order to achieve a unity in style throughout the building elevations. These additions are made even when there is no pretense of a version of them being present.

Component	Code	Intervention Types	Intervention Numbers
Façade	F1	Repair of façade elements	1-2
	F2	Removal of façade elements	3-6-17-18
	F3	Modification of façade timber frames	4
	F4	Consolidation of façade timber elements	5
	FA1	Addition of a modern façade element	7-8-9-10-11-12-13-14-16-19-20-22-23
	FA2	Addition of an aesthetically matching element	15-21

Table. 3.7. Intervention types of the Facade component. Prepared by the Author.

CHAPTER 4

A FRAMEWORK FOR DETERMINING POST INTERVENTION VALUE SHIFT: METHODOLOGY AND CRITERIA

4.1. Pre intervention Values

The main values discussed within the constraints of this thesis are the physical and social values, based on their description in chapter two. As established by the third chapter, the building components and elements in this typology of heritage residential buildings are known, along with their form, usage, materials, significance, history, users, and the new meaning given to them by the new stakeholders.

Pre intervention values are those present in the building before the application of any conservation activities, taking into consideration the state the building was in at the time, the way people interacted with it, and all the damage it had open its fabric. It is the base point on which sustainable conservation planning is built upon. Values that are meant to be conserved are present at this stage with the possibility of these value to witness a change.

It is hence perceived that the main values to be concluded from these building are:

Age – Documentary – Architectural – Technical – Integrity – Aesthetic – Memory – Identity

They are 8 in total, not including the economic values, split between physical and social values, physical which are concerned with the building fabric and the social dealing with the interaction of the users with the building itself. The aesthetic value however dwells between the physical and the social dimensions due to its connection with the visual aspect of the building elements and the way people react to that physical environment to deem as aesthetic.

The pre-intervention values are as mentioned throughout this thesis baked into the building fabric, hence through analyzing the physical setting of the building these values can be deduced based on their definition. Each component portrays a set of values as evident by the elements forming that component. These values are perceived in different forms and in an array of elements.

Using values in this manner requires the definition of the terms and an explanation about the way they are present within the component. Hence based on The Getty Conservation Institute (2000 & 2002) and Özçakır et al (2022) these values are defined as such:

Physical Values:

- **Age**: the value apparent by the historic events that occurred in and around a heritage residential building and the ability of that building to convey and embody the narratives associated to it, shown on the building itself as physical signs of age and exploits.

- **Documentary**: the value presented by the knowledge gained from the elements of the buildings in addition to their representation in previous, current, and future documentation to enhance the information around a heritage residential building.

- **Architectural**: the value based on understanding the architectural characters and unique features of a heritage residential building within the period (or periods) they exemplify, and their representation away from unfounded beautification.

- **Technical**: the value characterized by educational knowledge and knowhow of the construction techniques used in a heritage residential building.

- **Integrity**: the value highlighted by the presence of culturally important building elements together, in a condition that signifies their original intended state, to form a whole that is representative of the authentic building state.

These values along with the aesthetic value make up what is known as the significance of the physical setting, which are the aspects to consider while approaching the building element from a conservation standpoint and are the imbued nom tangible aspect of the building fabric.

Social Values:

- **Aesthetic**: the value based on the sensory experiences (touch, sight, smell, hearing, and taste) that are relayed by a heritage residential building to the user, instilling them with an individualistic sense of beauty.

- **Memory**: the intrinsic value of memories of old and new users entwined with the physical setting of a heritage residential building: old memories, their continuity, and the appearance of new ones.

- **Identity**: the value encompassing the connection of the users to the function of the building and practices or use patterns being partaken in the heritage residential buildings.

The social values are a representation of the connection of the users with the environment they are in, it is not only bound by the physical setting but by the users themselves in case they change, the area as a whole and how it evolved with time, and the change in the function of the building. It is more challenging zooming in on the social values to examine in way they shift based on element change and hence the study was built in such a way that the value shift is being studied on a component scale and not on an element scale.

In layman's term, even when the physical intervention change is examined upon an element scale through intervention type, the effect on values is studied upon the component they belong to as a whole and not the element itself. For example, an intervention magnitude upon the wall will create a value shift within the realm of the plan and not the wall itself. Hence the result will relay value shift upon each component in the building within the building.

Looking at the pre-intervention values in hand, one can make the connection between these values and the state in which they are present within the components.

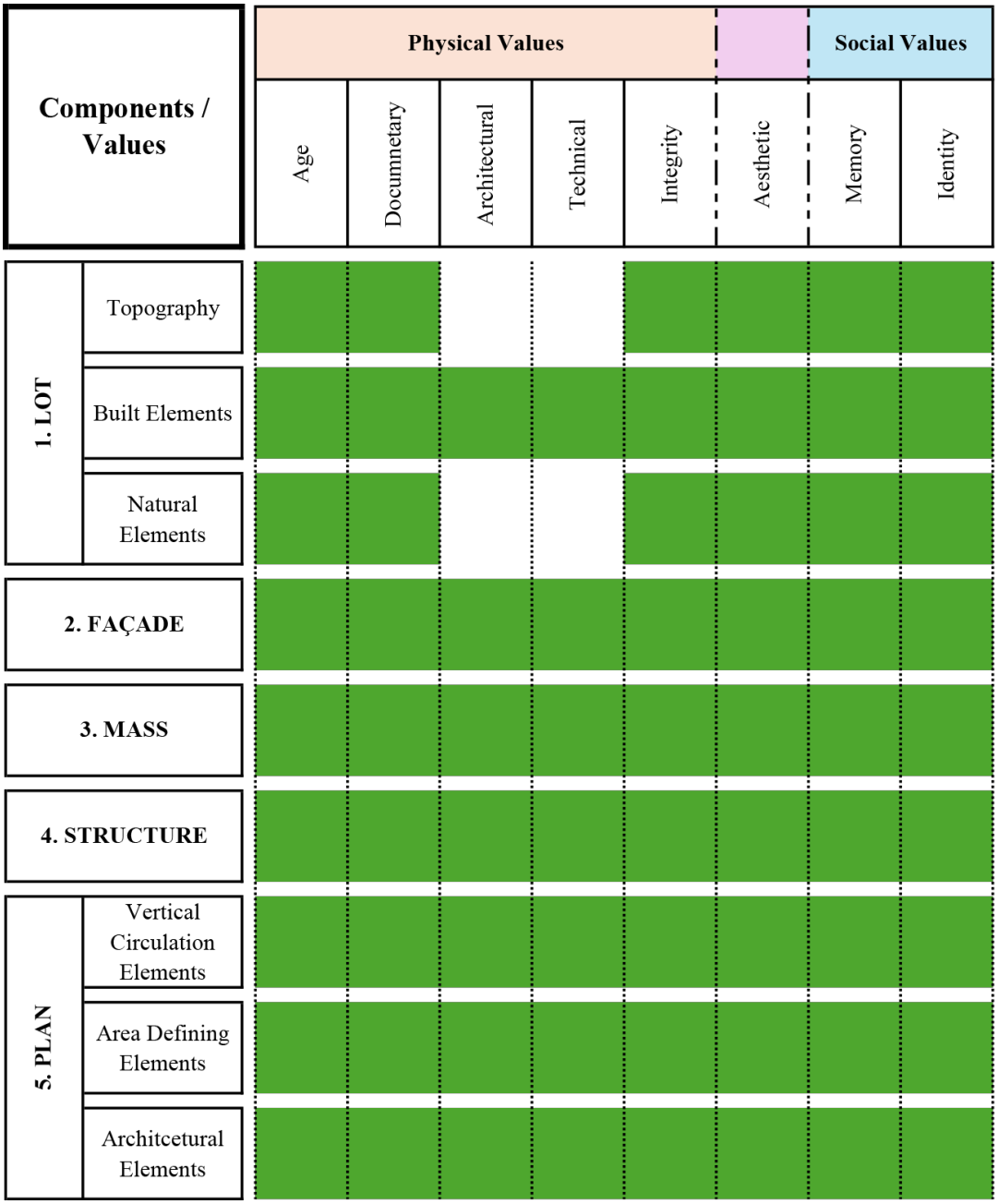


Table. 4.1. Pre-intervention values in Kaleiçi's heritage residential buildings. Prepared by the Author.

As for the Age and Documentation values it can be confidently stated that they are present as a staple within each component, for the first is represented by the signs of age both tangible and intangible throughout the building. It is a value that every historic building possesses and can be visually assessed through the use of that building. It is also the value most susceptible to change or loss due to the modern notion in rehabilitation projects that age sign should be minimalized in order to represent the building in a restored fashion which can be more aesthetically pleasing for users. The latter is the personification of the ability to document the original aspects, the change, and the later stages to keep tabs on the authenticity of the building. This value is vastly overlooked by some restoration approaches like what's seen in Kaleiçi.

The architectural and technical values are more tied to the built environment aspect than the natural ones within the building. These values are entwined with the built physical environment, building technique, and manmade structures opposed to the free growing unconstructed character of the natural environment. Hence these values are abscent when discussing the values portrayed by the topography and the natural elements within the lot component of the building.

Integrity is the binding value that connects the elements together and insures an authentic experience within the building. It is the value of the wholeness of the fabric and the enforcer of the character of the building. To build the character of the building each element is responsible for a part. Elements that are out of place are detected as unauthentic and outside the frame of integrity.

As for the social values, they are based on the bestowed meaning from the users, and as long as a component is being used by someone there will be imbued memories, an identity for the place, and an aesthetic perception. There is a case to be made that the structural component does not hold such social values due to the lack of interaction between the users and that building fabric. Within the context of this thesis the structure includes the composition of the structural element, and the materials used, both of which are primary conductors of social values.

4.2. Post Intervention Value Shift

According to the previous conclusions throughout this thesis, post intervention value shift is the effect of the intervention on the values through the change done to the building elements. The building components were realized through a combination of elements, the interventions to these elements were analyzed and recorded in chapter three, and finally the intervention types were concluded.

Building components portray a set of inherent and bestowed values by the nature of the building elements and the perception of the users, with the intervention magnitudes and the change in function these values are set to shift because of the change in the elements and the way the users interact with the building. The interventions cause changes on the two sustainability pillars that are explored in this thesis: physical setting and the social environment.

Values can shift in an array of ways depending on the intervention and its result upon the physical setting and the users' perception. The shift is based on a comparison between the pre-intervention state of the building and its values and post intervention building state so that the shift can be deduced.

One such change is an **increase** in the value which is defined as the enhancement of this values in such a way that it is not just preserved but more prominent and prevalent post intervention.

Another change is seen through the **decrease** of the value, which is defined as a value losing its prominence and its recognition throughout the building. Values are the personification of the intangible within the tangible and hence when a value decreases it is not as embedded within the building component as it used to be.

Values can also be **lost** if the elements they are represented by are heavily changed or removed in such a way that a specific value is completely unrecognizable or untraceable.

A value can also **transform** which is evident by the continuous presence of the value through other means within the building component. This is seen where a change is executed on an element that does not cause the value to decrease, increase, or get completely lost, but instead refocused in another aspect within the component. Hence in a transformed value, the value is still present but highlighted through a different tangible aspect.

Finally, values can be at a neutral state like in the case of **unchanged** if the intervention type doesn't affect their state within the elements or be **abscent** in the first place from a certain element like in the case of the absence of architectural and technical values from the natural lot elements since they aren't manmade structures. Elements with abscent physical values hardly ever gain that value later, although social values can be gained even if they were originally abscent. In the case of the heritage residential buildings in Kaleiçi, and as evident by the pre-intervention value table the only abscent values are the technical and architectural natural elements and topography sections of the lot component.

To realize these **value shifts upon the components**, an element study is made using the plans and elevations of Building A in order to correlate the intervention type upon that element with the value shift perceived due to that intervention. The value shifts are categorized according to: Increased, Decreased, Lost, and Transformed, whereas other value states like Unchanged and Abscent are also observed. The drawings' key represents a system that correlates different hatches with the number of values that changed within an element as a response to the intervention. Hence with the overlapping of the hatches the number of values that were increased, decreased, lost, transformed, unchanged, or are abscent could be determined; with the set total number of values within every element being 8. The values as stated are the Age value, Documentary, Architectural., Technical, Integrity, Aesthetic, Memory, and Identity. Each hatched element is assigned an intervention type code that can be related to the intervention magnitudes table. Finally, through the post-intervention value shift table each intervention type is matched with its value shift in accordance with the drawings' illustrations.

Value Shift Analysis Key:

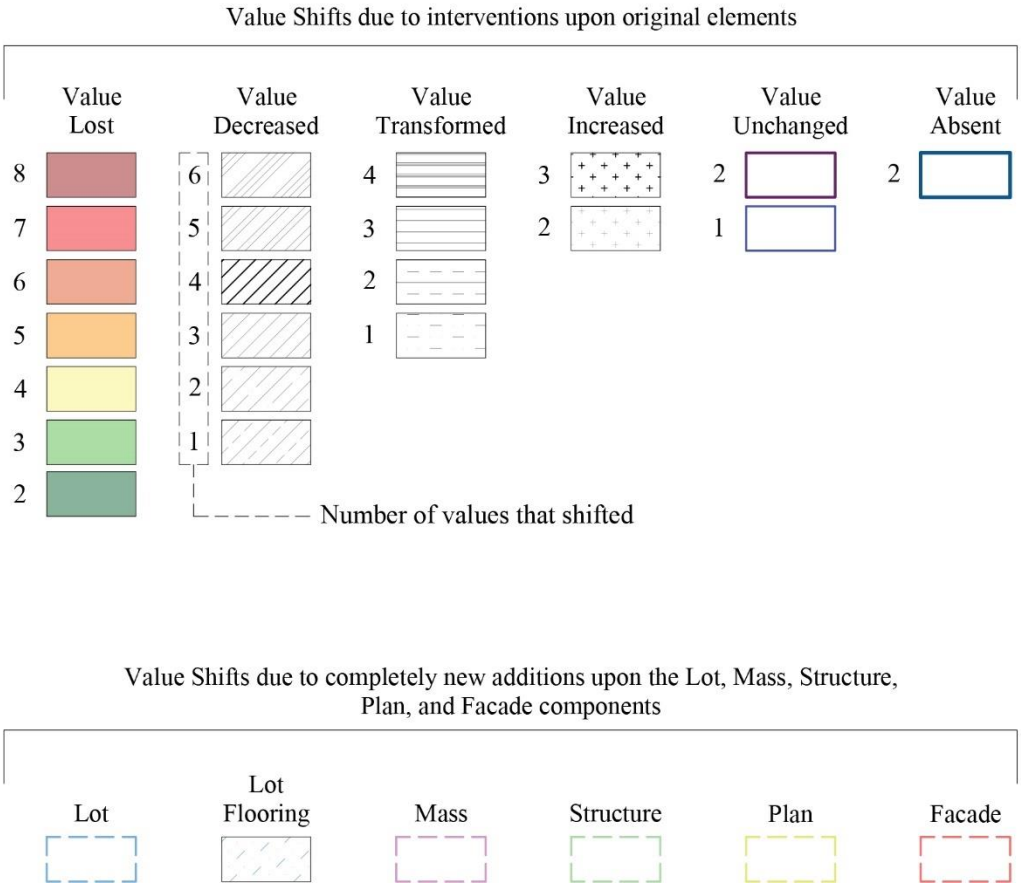


Figure 4.1. Value shift and state analysis key. Prepared by the Author.

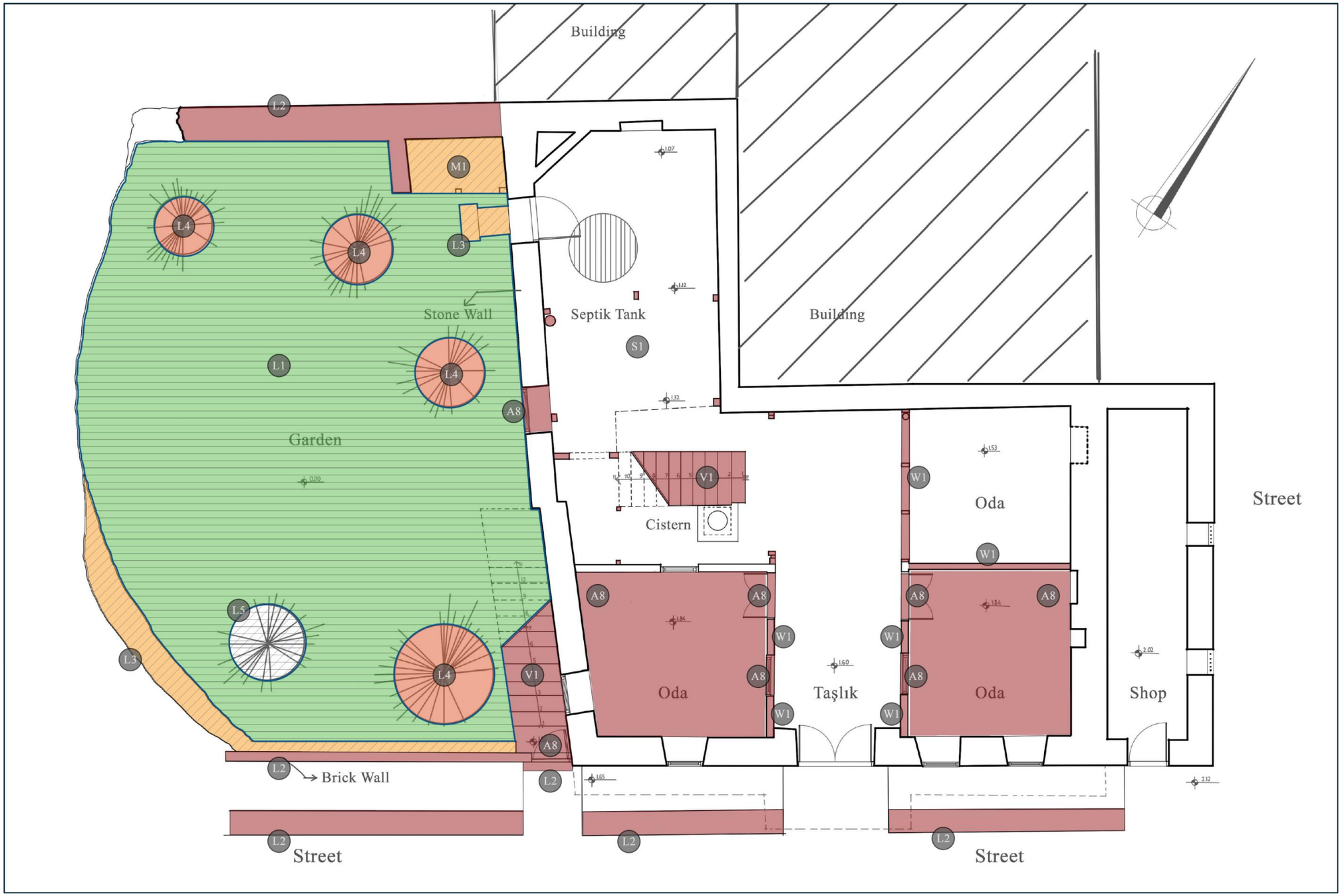


Figure 4.2. Original ground floor plan value shift analysis. Prepared by the Author.

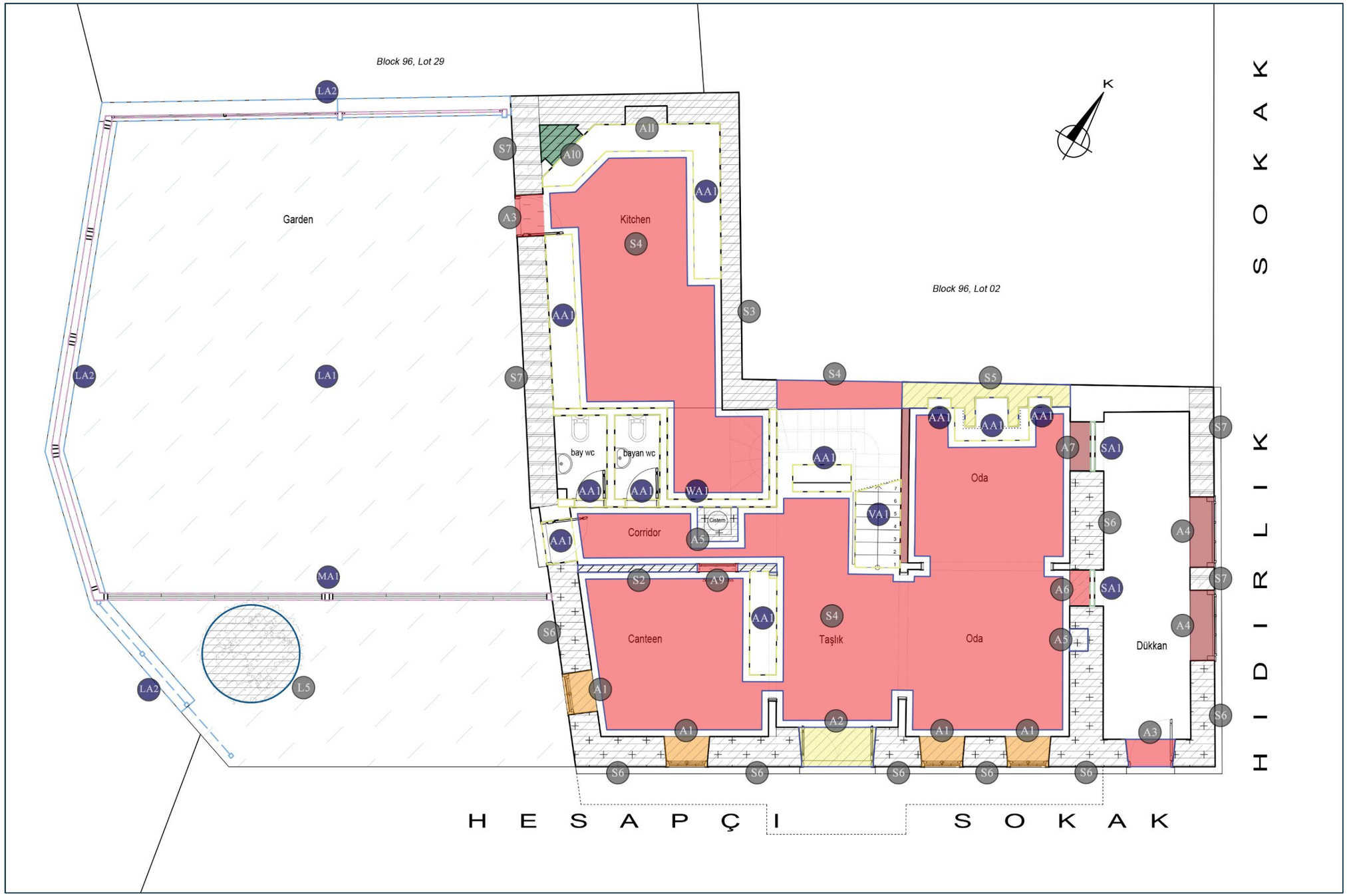


Figure 4.3. Restored ground floor plan value shift analysis. Prepared by the Author.

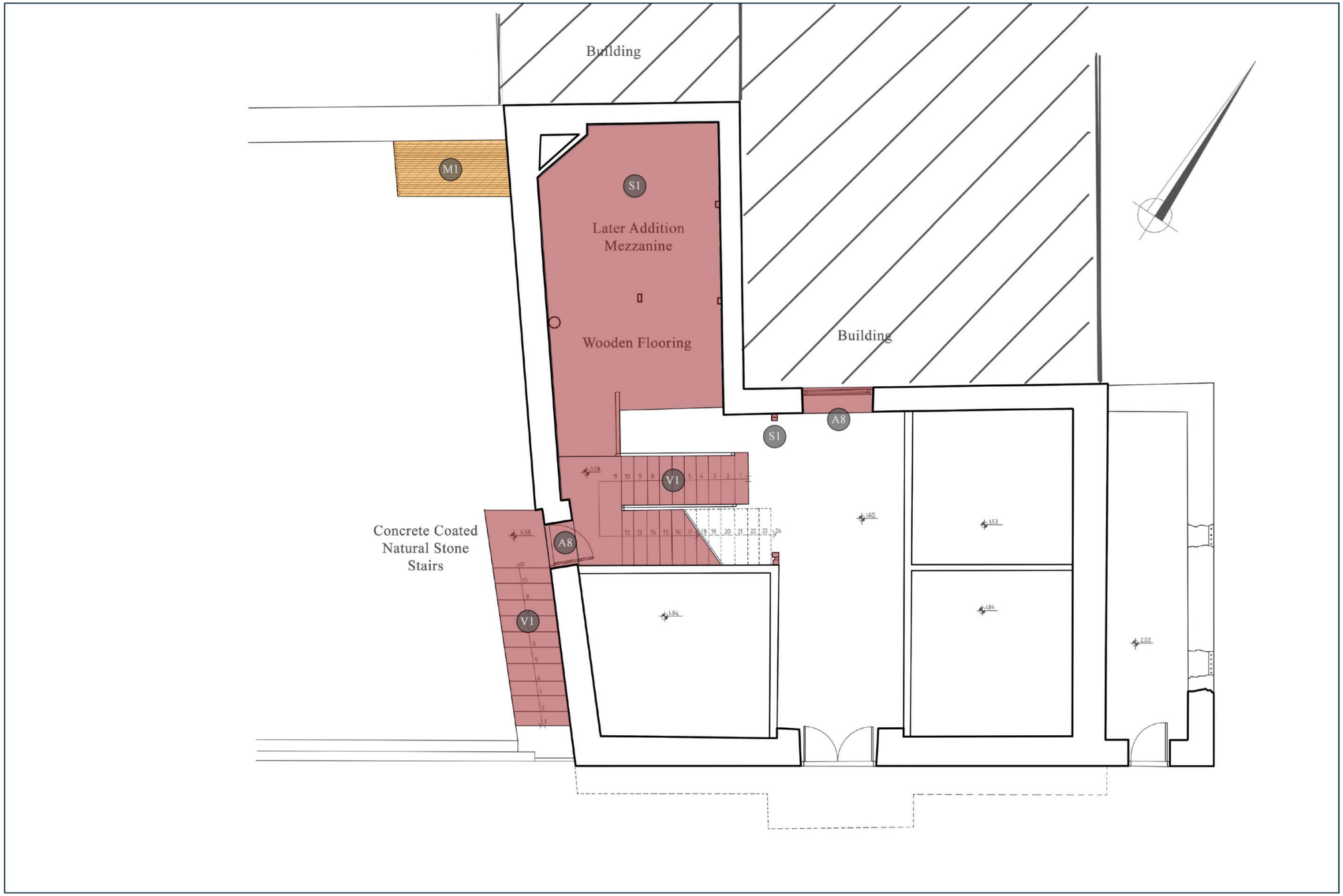


Figure 4.4. Original mezzanine plan value shift analysis. Prepared by the Author.

Figure 4.5. Original first floor plan value shift analysis. Prepared by the Author.

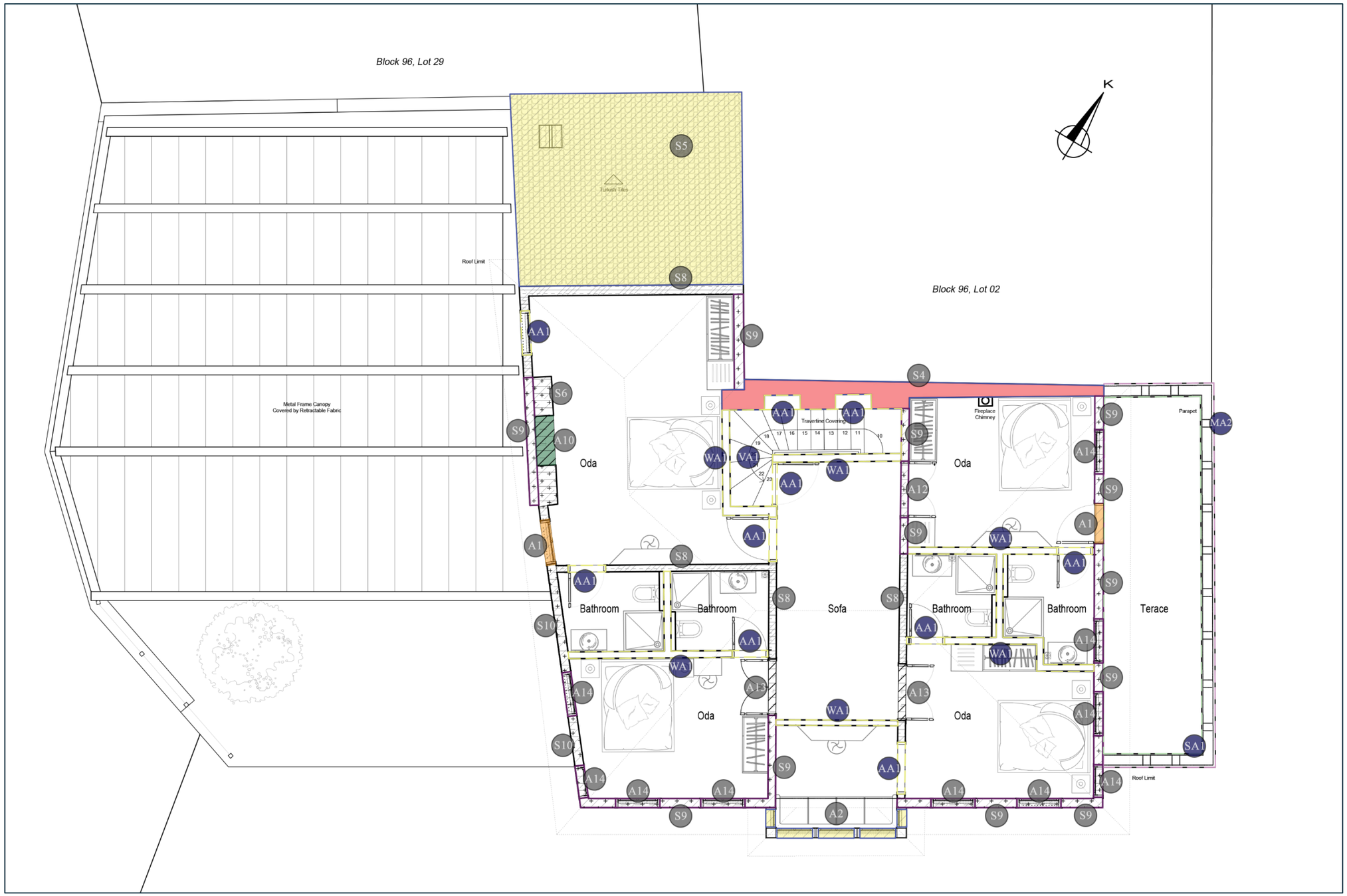
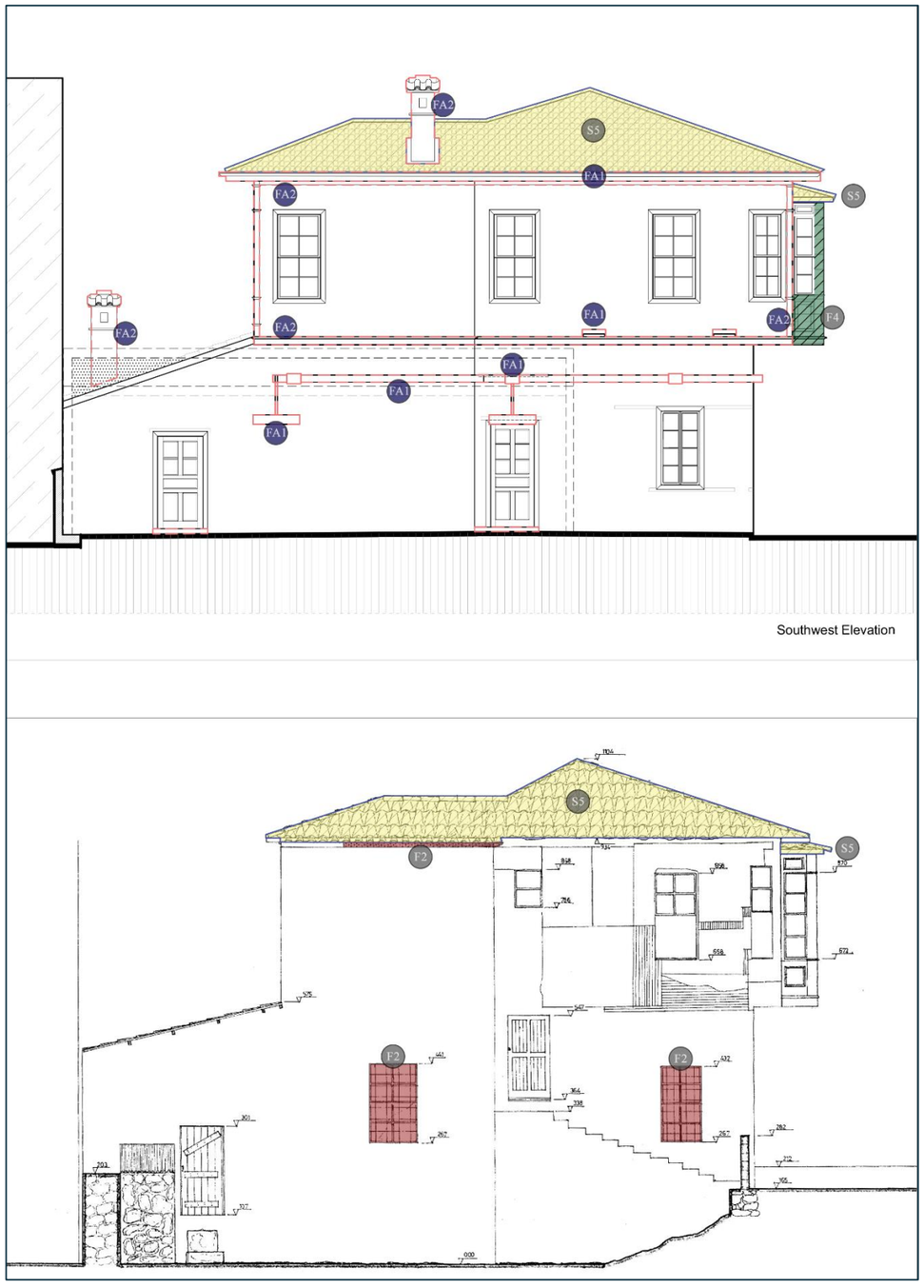


Figure 4.6. Restored first floor plan value shift analysis. Prepared by the Author.

Southeast Elevation

Figure 4.7. Restored (up) and original southeast elevation value shift analysis. Prepared by the Author.



Southwest Elevation

Figure 4.8. Restored (up) and original southwest elevation value shift analysis. Prepared by the Author.

Figure 4.9. Restored (up) and original northeast elevation value shift analysis. Prepared by the Author.

Component		Code	Intervention Magnitude	Value Shift
Lot	Topography	L1	Level alteration of sloped courtyard	**Age**: Lost / **Documentary**: Lost **Architectural**: Abscent / **Technical**: Abscent **Integrity**: Transformed / **Aesthetic**: Transformed **Memory**: Lost / **Identity**: Transformed

Table. 4.2. Post intervention value shift for Lot part 1. Prepared by the Author.

Starting with the Lot component of the building, specifically the Topography aspect of it, according to the data set of building A, B, C, and D the intervention magnitude occurring at this level is the alteration of the level of the courtyard which was previously sloped. This intervention, L1, caused the age value to be lost due to the removal of all signs of the previous state of the building and the activities that used to happen within. The documentary value was likewise lost due to the loss of the original established topography and hence the haltering of further documentation of the original state. The architectural and technical values are both abscent due to the element acted upon being composed through nature and not human built methods. The integrity value transformed due to the continued presence of the courtyard in a state that is directly connected to the house as originally intended but in an altered state seen in the leveling of the topography. The aesthetic value transformed due to the altered nature of the courtyard which offers a new aesthetic to the new users but detracts from the original aesthetic of the courtyard. The memory value is lost due to complete removal of the previous features if the courtyard topography that had memories associated with it, and hence new memory values must be bestowed unto this new feature. Finally, the identity of the lot transformed due to this intervention as it changed the manner in which users interact with this element either by itself or through its connection with the building or the street. Furthermore, the function change acted upon the courtyard, which in turn affected its leveling, affected the identity of the lot component.

Lot	Built Elements	L2	Removal of a primary lot element	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		L3	Removal of a secondary lot element	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Decreased **Memory**: Lost / **Identity**: Decreased
		LA1	Addition of a major lot element	**Age**: Lost / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed
		LA2	Addition of a minor lot element	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed

Table. 4.3. Post intervention value shift for Lot part 2. Prepared by the Author.

As for the built elements within the lot there exists four intervention magnitudes, two of them are enacted upon original elements while two are considered completely new additions. Intervention L2, characterized by the removal of primary lot elements, resulted in a value shift seen through the loss of all the values associated with said elements. The removal of these important lot elements caused the values associated with them to subsequently be lost on a lot component scale.

Intervention L3, which is perceived as the removal of secondary lot elements, is experienced through the loss of the age, documentary, architectural, technical, and memory values due to the complete removal of these elements. On the other hand, since these elements are considered as secondary and did not impact the original integrity, aesthetic, or identity of the lot in an immense fashion, these values were perceived as decreased on a lot component scale.

Likewise, the addition of a major element, LA1, resulted in the loss of the age and integrity values within the lot component due to those additions overwhelming the original physical state and element integrities within the site. Hence the overwhelming nature of the lot, specifically the courtyard, post intervention is devoid of elements that showcase the age value or the integrity value between the original elements due to those new major additions. Due to the addition of these major elements, it was noted that the rest of the physical values: documentary, architectural, and technical values decreased within the lot. On the other hand, the social values: aesthetic, memory, and identity transformed within the lot component due to the introduction of these new elements that the new users are interacting with.

Intervention LA2, characterized by the addition of minor lot element led to all the physical values being decreased for their impact on the lot is not as potent as LA1. Social values were transformed due to these new additions introducing a new aesthetic and a method to interact with the lot.

Lot	Natural Elements	L4	Removal of a tree	**Age**: Lost / **Documentary**: Lost **Architectural**: Abscent / **Technical**: Abscent **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		L5	Relocation of a tree within the courtyard	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Abscent / **Technical**: Abscent **Integrity**: Transformed / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
		LA3	Addition of a tree	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Abscent / **Technical**: Abscent **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed

Table. 4.4. Post intervention value shift for Lot part 3. Prepared by the Author.

The natural elements within the lot are devoid of architectural and technical values. As for intervention L4, the removal of the tree resulted in the loss of all the values associated with it for it is considered as a main element within the lot.

Intervention L3 on the other hand resulted in the decrease of the age, documentary, and memory values due to the relocation of a tree within the site. This relocation ensures that the element is still present but within a different context hence decreasing these values which are heavily related to the physical status of the element and its context. On the other hand, integrity, aesthetics, and identity values transformed. The integrity value is heavily related to the presence or absence of the element and its relation to the other elements within the component, hence a relocation causes the integrity value to transform, for it is present but its relationship with the other elements changed. The aesthetic value transformed also due to the relocation, for the element is still present but at a different location; hence the same cause is applied for the identity, for the new users are interacting with the element within the lot but at a different location.

Addition LA3, characterized by the addition of a tree to the lot resulted in the decrease of the physical values within the lot component due to it adding an unoriginal element to the physical setting. On the other hand, the social values transformed through this addition for the new element offers a chance to bequest new experiences to the lot component through the new users and their relationship to the lot elements.

Component	Code	Intervention Magnitude	Value Shift
Mass	M1	Removal of a supplemental small mass	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Decreased **Memory**: Lost / **Identity**: Decreased
	MA1	Addition of an adjacent medium mass with new materials and glass	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed
	MA2	Reconstructed collapsed small mass with aged materials and new design	**Age**: Lost / **Documentary**: Decreased **Architectural**: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed

Table. 4.5. Post intervention value shift for Mass. Prepared by the Author.

The mass intervention magnitudes within Kaleiçi's four case consist of one intervention magnitude upon original elements and two new additions. Intervention M1 is characterized by the removal of a supplementary small mass attached to the side of the building across its ground floor level. This mass was not overly important in the grand scheme of the building mass interactions, but its absence still affects the physical setting through the loss of the age, documentary, architectural, and technical values, in addition to the loss of the memory value. These values were lost due to the lack of a physical element to be characterized through. Integrity on the other hand decreases due to the observation of value shifts on a component scale, and in terms of the mass component the loss of a secondary small mass does not result in the loss but the decrease of this value. The aesthetic and identity values likewise decrease due to the reduction in the elements for the new users to interact with within the mass component.

Mass addition intervention MA1, which is characterized by the addition of a medium mass, compared to the main original building. In this version the addition is strictly of light materials and covered with glass to allow for transparency. Transparency and lightness are the keywords in this case since materials have a large impact on addition intervention types. This intervention resulted in the decrease of four of the five physical values and the loss of the fifth. Age, documentation, architectural, and technical values decreased since the addition was large enough to impact the physical setting of the mass component and overshadow the other original element at that zone. Integrity value was lost due to the addition of a considerable mass that wasn't previously there, covering up a portion of the original elements and enforcing modern elements within this component that don't integrate with the original. The social values transformed through this addition for the new element offers a chance to endow new experiences to the mass component through the new users and their relationship to the added mass.

Addition MA2 is characterized through the reconstruction of a previously collapsed mass attached to the building. This addition, however, is built with materials that appear aged as if belonging to the original mass arrangement. Furthermore, the addition is not based on previous documentation of the buildings but on a similar case within the site. This resulted in the loss of the age, architectural, and technical values due to the addition being new but using materials that appear aged and with techniques that are unfounded upon the history of the building. The documentary and integrity values decrease because of the knowledge of a previous mass in this area, and the reconstruction allows for a continuation of the documentation and integrity values. But since the addition is not based on documentation, these values decrease instead on a mass component scale. The social values transformed through this addition for the new element offers a chance to endow new experiences to the mass component through the new users and their relationship to the added mass.

Component	Code	Intervention Magnitude	Value Shift
Structure	S1	Removal of a structure or structural element	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
	S2	Modification of a timber interior wall	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Unchanged / **Technical**: Decreased **Integrity**: Transformed / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	S3	Repair and cladding of a masonry wall with new materials	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Transformed / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	S4	Replacement of an element with different materials	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Unchanged
	S5	Replacement of an element with similar materials	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Decreased **Memory**: Decreased / **Identity**: Unchanged
	S6	Masonry wall maintenance, cleaning, and removal of later added outer layers	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Transformed / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed

Table. 4.6. Post intervention value shift for Structure part 1. Prepared by the Author.

Intervention S1 to the structure component of the building consisted of the removal of a structural element and hence all the values were lost due to the loss of the physical entity they are anchored to.

Intervention S2 showcases the modification of a timber wall which entails the removal of an architectural element from it then replacing it with a comparable new one with the same size and function in a new location within the wall. The focus in this case is the wall itself after the modification, repair, covering, and painting. Hence the age value, documentary, technical, and memory decreased due to these interventions that affected the inner and outer layers of the wall in addition to the memories imbedded within this element. The architectural value was unchanged for the wall still exists featuring an architectural element that is installed using the same techniques hence from an architectural character point of view that value did not change. Integrity, aesthetic, and identity values transformed due to the modification of the wall order and the changing of the outer layers which transformed the manner in which the new users interact with the element and the manner in which the wall integrates with the original fabric.

Intervention S3's main intervention is the cladding of the masonry wall with new material. Hence the original wall still exists but it is covered to serve a function in a way that isn't traced back to the original structure. Hence age, documentary, architectural, and technical values decreased due to the covering of the masonry work in new materials and techniques. Integrity value transformed since the wall still stands but with a different outer layer hence visually it is different but structurally it integrates with the other fabric withing the structure component. Aesthetic and identity values transformed due to the new manners in which the users experience these elements while memory values decreased because of the covering of the wall with the new cladding tiles.

Intervention S4 resulted in the loss of all the values except for the identity value, due to the removal of an original element then replacing it with a new one that does the same function but using different materials and techniques. New users hence interact with the element in a similar manner while all the other values are lost with the loss of the original element.

S5 resulted in the loss of the age, documentary, architectural, and technical values due to the loss of an original element. The element was nevertheless replaced with a new one using the same materials and comparable techniques, hence due to the similarities between the original elements and the new additions the integrity, aesthetic, and memory values decrease within the structure component. The identity remains unchanged since new users interact with the element in a similar manner.

Intervention S6 showcases the maintenance of a masonry wall in addition to the cleaning of the masonry and the removal of any later added layers. This resulted in the decrease of the age value since most age signs were removed via the cleaning, whereas the documentary, architectural, and technical values increased due to the gained ability to perceive and document the masonry and the construction technique that was previously covered with unoriginal paint. Integrity transformed due to the continued presence of the wall but in a different aesthetic, which is also the reason why the aesthetic and identity values transformed. Memory value decreases due to the removal of some aspects that users previously interacted with, namely the outer wall layers.

Structure	S7	Masonry wall partial reconstruct, repair, and cleaning	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Increased / **Technical**: Transformed **Integrity**: Increased / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed
	S8	Alteration of walls by adding or removing architectural elements	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	S9	Timber wall maintenance, repair, and application of covering layers	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Decreased **Integrity**: Unchanged / **Aesthetic**: Increased **Memory**: Decreased / **Identity**: Unchanged
	S10	Consolidation and reconstruction of a timber wall	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Increased / **Technical**: Decreased **Integrity**: Increased / **Aesthetic**: Increased **Memory**: Transformed / **Identity**: Transformed
	S11	Maintenance of a fine cut masonry wall	**Age**: Unchanged / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Unchanged **Memory**: Unchanged / **Identity**: Unchanged
	S12	Repair of timber floor beams and planks	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Unchanged

Table. 4.7. Post intervention value shift for Structure part 2. Prepared by the Author.

Intervention S7 consisted of the partial reconstruction, repair, and cleaning of a masonry wall that had partially collapsed. Hence the age and documentary values decreased due to the cleaning and reconstructing according to the general building form without sufficient documentation data respectively. Architectural and integrity values increased due to the reconstruction which rendered the element whole again and functional. Technical value transformed due to how the wall was patched, in a compatible manner with the original but not based on documentations. Whereas the social values transformed due to the completion of the element making it functional and susceptible to user interaction.

S8 showcases the alteration of the wall which changes its characteristic by either removing or adding elements to its structure. This doesn't only affect the materials, and the structure but the outwards appearance of the element. Hence All the values decrease due to the change except for the aesthetic and identity values which transform due to the transformed look and the altered fashion in which users interact with the element within this component.

S9 includes the repair, maintenance, and application of outer layers of a timber wall. Hence this interventions renders the timber wall as new. Due to the new aesthetic the age and memory values decrease, while the technical value decreases due to the structural reinforcement and modification that occurred. The documentary, architectural, and aesthetic values increase as a response for the upkeep of the wall in its original form with an aesthetic and architectural style that is in line with the original. The integrity and identity values remain unchanged due to the fixed nature of the element in its interaction with other elements withing the component and the users' interaction with it.

Intervention S10 consists of the consolidation and reconstruction of a timber wall which are heavy repair works in order to return the wall back into working order. The age, documentary, and technical values subsequently decrease due to the heavy changes that occurred upon the outer layer, inner layers, and the structure of the wall. The architectural, integrity, and aesthetic values nevertheless increase due to the restoration of the wall to a previously intended state which intensifies these values. Finally, the memory and identity values transform for the restored element offers a chance to endow new experiences to the structure component through the new users and their relationship to the element.

Through intervention S11 we see minimal change due to the intervention type which showcased the maintenance of a fine cut masonry wall. This maintenance was devoid of harsh cleaning methods or extensive repair and hence maintains most of its value. Hence the documentary, architectural, and the technical values increased due to the maintenance while age, integrity, aesthetic, memory, and identity remained unchanged.

S12 is characterized by the repair of timber floor elements which isn't an intrusive act, hence only the age value decreased due to the cleaning and change of the outwards layer. Documentary, architectural, and technical values increased due to the maintenance of an original element in a non-intrusive manner, while the integrity and identity values remain unchanged due to the fixed nature of the element in its interaction with other elements withing the component and the users' interaction with it. Finally, the memory and aesthetic values transform for the repaired element offers a chance to bequest new experiences to the structure component that was given a restored look.

Structure	SA1	Addition of a secondary structural element	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	SA2	Addition of a new interior structure	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Lost / **Identity**: Transformed

Table. 4.8. Post intervention value shift for Structure part 3. Prepared by the Author.

The addition intervention SA1 to the structure component consists of the addition of a secondary structure element. Secondary additions result in the decrease of all the physical values within the structure component of the building. In addition, the memory value also decreased due to the added materials in a new location within the space which affects the overall memory of the space. Finally, the aesthetic and identity values transformed due to the new manners in which the users experience these elements.

SA2 is characterized by the addition of a new structure which affects the structure component more than SA1 since the scale is larger and the effect on other elements is grander. Hence like SA1 age, documentary, architectural, and technical values decreased, while aesthetic and identity transformed. Dissimilar to SA1 the integrity and memory values are lost due to the scale of the addition and the manner it affects the previous memories and the way the elements integrate with each other.

Component		Code	Intervention Magnitude	Value Shift
PLAN	Vertical Circulation Elements	V1	Removal of stairs	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		V2	Repair of stairs	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Unchanged
		VA1	Addition of stairs	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Lost / **Identity**: Transformed

Table. 4.9. Post intervention value shift for Plan part 1. Prepared by the Author.

Interventions to the vertical circulation elements within the plan component start with intervention V1, which consists of the removal of stairs. Similar to other major removal interventions all values are lost along with the element those values were manifested by.

Intervention V2 is characterized by the repair of stairs which is a soft intervention upon the element that involves some minor repair to ensure proper functioning and application of coating layers. Hence age value decreases, while documentary, architectural, and technical values increase due to the repair and maintenance of the element. Aesthetic and memory values transform due to the change with the outer layer of the element and hence the perception of the new users towards the element and their interaction with the element changes. Integrity and identity values remain unchanged due to the fixed nature of the use and form of the element post intervention.

Addition intervention VA1 is characterized through the addition of new stairs hence this intervention leads to a decrease in the age, documentary, architectural, and technical values, whereas the integrity and memory values was lost due to the complete change in integrity within the plan component with the addition of stairs in a new location in the building. Aesthetic and identity values were transformed due to the created interaction between the new users and the added stairs.

PLAN	Area Defining Elements	W1	Removal of interior partitions	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		WA1	Addition of interior partition	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Lost / **Identity**: Transformed

Table. 4.10. Post intervention value shift for Plan part 2. Prepared by the Author.

Interventions to the area defining elements within the plan component start with intervention W1, which consists of the removal of an interior. Like other major removal interventions all values are lost along with the element those values were manifested by.

Intervention WA1 is characterized by the addition of interior partitions. And like the stairs section age, documentary, architectural, and technical values decreased; whereas the integrity and memory values were lost due to the complete change in integrity within the plan component with the addition of a partition in a new location in the building which changes the space organization and circulation. Aesthetic and identity values were transformed due to the created interaction between the new users and the added partitions and spaces within.

PLAN	Architcetural Elements	A1	Replacement of elements with similar materials but different techniques	**Age**: Lost / **Documentary**: Lost **Architectura**l: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Decreased **Memory**: Lost / **Identity**: Decreased
		A2	Replacement of element with similar materials and comparable techniques	**Age**: Lost / **Documentary**: Lost **Architectura**l: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Decreased **Memory**: Decreased / **Identity**: Unchanged
		A3	Replacement of an element with different materials	**Age**: Lost / **Documentary**: Lost **Architectura**l: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Unchanged
		A4	Modification of opening size and replacing element with a new element	**Age**: Lost / **Documentary**: Lost **Architectura**l: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		A5	Maintenance of an element with function change	**Age**: Decreased / **Documentary**: Increased **Architectura**l: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Transformed
		A6	Niche removal and replacement with new materials and techniques	**Age**: Lost / **Documentary**: Lost **Architectura**l: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Decreased

Table. 4.11. Post intervention value shift for Plan part 3. Prepared by the Author.

Interventions to architectural elements are plentiful due to the sheer number of elements within the building and the difference between the approaches to intervention types with each element. Similar to other interventions that include removal of an original element, all values are either lost or decreased. A1 showcases the loss of age, documentary, architectural, technical and memory values, while integrity, aesthetic, and identity decreased. This is due to the removal of an architectural element then replacing it with another featuring different techniques than the original but similar materials.

A2 is less acute, featuring the removal of an architectural element then replacing it with a new one of comparable techniques and materials. Hence age, documentary, architectural, and technical values were lost, integrity, aesthetic, and memory decreased, but the identity value remained unchanged.

A3 has the highest degree of replacement, showcasing new materials and techniques hence all the values were lost except for the identity value which remained unchanged due to the fixed nature of the function around the architectural element.

Intervention A4 showcases multiple changes including the removal of an original element, changing the size of the enclosure it was held in, then replacing it with an entirely new element. This intervention absolves the traces of the previous element completely hence all the values were lost.

A5 on the other hand showcases the maintenance of an element with its original function being changed. Hence due to the intervention having a minimal effect on the physical setting, the documentary, architectural, and technical values increased. The aesthetic, memory, and identity values transformed due to the new function, and the age value decreased due to the partial removal of age traces. The integrity value remained unchanged due to the nature of the element being unchanged.

Intervention A6 differs from A3 by being strictly for niches that got replaced and their function changed, hence this change in function led the identity value to decrease while the physical intervention resulted in the loss of all other values.

PLAN	Architectural Elements	A7	Element trace replacement with new materials and techniques	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		A8	Removal of an element	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
		A9	Relocating and replacing of an element with different materials and techniques	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Transformed
		A10	Transformed fireplace	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Lost / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
		A11	Modification of niche dimensions	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
		A12	Maintenance of an element without function change	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Unchanged

Table. 4.12. Post intervention value shift for Plan part 4. Prepared by the Author.

Intervention type A7 showcases the removal of a trace that would have indicate the presence of a previous element. The removal of that trace and replacing it with an architectural element featuring new materials and techniques completely washes away all the values within the original trace, hence all the value were lost.

Intervention A8 simply includes the complete removal of an element, hence all the values associated with the element are subsequently lost.

Intervention A9 consists of a composite of actions staring with the removal of an element, the replacing it with a new one featuring different techniques and materials. Moreover this addition is made at a different location than the original within the same space in close proximity to the previous spot. These actions result in the loss of all the values except for the identity value which was transformed due to the element still existing in the space, bar in a new state, with the same function.

Intervention A10 defines the transformation of a fireplace, hence the changing of its physical aspects, whether by addition, subtraction, or alteration in order to change its usage and form. This intervention results in the loss of the architectural and integrity values, the decrease of the age, documentary, technical, and memory values, while the aesthetic and identity values are transformed. This is due to the presence of original parts within the elements and other traces, in addition to the function being a derivative and not a complete deviation of the original one.

A11 is showcased as the modification of a niche's dimensions, which entails the change of the width, length, or height of the element. This results in a change to the materials which led to the decrease of all the values except for the aesthetic and identity values which transformed. The transformation in identity resulted from the change in the function of the element that required the dimension change primarily.

Intervention A12 is similar to A5 bar the function change, which is not present in A12. Hence this maintenance resulted in the increase of documentary, architectural, and technical values, the transformation of the aesthetic and the memory values, decrease of age value, while identity and integrity remained unchanged.

PLAN	Architcetural Elements	A13	Maintenance and relocation of a timber door	**Age**: Decreased / **Documentary**: Decreased **Architectura**l: Increased / **Technical**: Increased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
		A14	Consolidation of timber windows	**Age**: Decreased / **Documentary**: Increased **Architectura**l: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Unchanged
		AA1	Addition of a new element	**Age**: Decreased / **Documentary**: Decreased **Architectura**l: Decreased / **Technical**: Decreased **Integrity**: Lost / **Aesthetic**: Transformed **Memory**: Lost / **Identity**: Transformed

Table. 4.13. Post intervention value shift for Plan part 5. Prepared by the Author.

Intervention A13 consists of the maintenance and the relocation of the timber door to a spot in closer proximity to the original while having the same function while at a different location. This results in the decrease of the age, documentary, integrity, and memory values, the increase of architectural and technical, and the transformation of the aesthetic and identity.

A14 constitutes the structural and material consolidation of timber windows to ensure proper working order and an original functioning aesthetic. The physical changes led to the decrease of the age value, increase of the documentary, architectural, and technical, the transformation of the aesthetic and memory values, while integrity and identity remained unchanged.

AA1 is an addition intervention of a new element which results in the decrease of age, documentary, architectural, and technical values within the plan component. The integrity and memory values were lost while the aesthetic and identity values transformed.

Component	Code	Intervention Magnitude	Value Shift
FAÇADE	F1	Repair of façade elements	**Age**: Decreased / **Documentary**: Increased **Architectural**: Increased / **Technical**: Increased **Integrity**: Unchanged / **Aesthetic**: Transformed **Memory**: Transformed / **Identity**: Unchanged
	F2	Removal of façade elements	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Lost / **Aesthetic**: Lost **Memory**: Lost / **Identity**: Lost
	F3	Modification of façade timber frames	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	F4	Consolidation of façade timber elements	**Age**: Lost / **Documentary**: Lost **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	FA1	Addition of a modern façade element	**Age**: Decreased / **Documentary**: Decreased **Architectural**: Decreased / **Technical**: Decreased **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed
	FA2	Addition of an aesthetically matching element	**Age**: Lost / **Documentary**: Lost **Architectural**: Lost / **Technical**: Lost **Integrity**: Decreased / **Aesthetic**: Transformed **Memory**: Decreased / **Identity**: Transformed

Table. 4.14. Post intervention value shift for Facade. Prepared by the Author.

As for the façade intervention magnitudes, F1 consisted of the repair of a façade element which is not a physically intrusive procedure aimed to upkeep the element in a working order. Hence the minimal physical changes led to the decrease of the age value, increase of the documentary, architectural, and technical, the transformation of the aesthetic and memory values, while integrity and identity remained unchanged.

F2 showcased the complete removal of a façade element hence all the values associated with those elements were subsequently lost.

F3 is showcased as the modification of timber frames, which entails the change of the shape and details of the element. This results in a change to the materials which led to the decrease of all the values except for the aesthetic and identity values which transformed. The transformation in identity resulted from the change in the perception of the element by the users.

Intervention F4 consists of the consolidation of façade timber elements to ensure structural integrity and working order. Hence this action upon the materials resulted in the loss of age and documentary values due to the replacement of major timber elements, and the decrease of architectural, technical, integrity, and memory values due to the loss of original forms, materials, and techniques. Aesthetic and identity values transformed due to the change in the perception of the element by the users.

FA1 and FA2 are both addition interventions with FA1 including new materials and techniques while FA2 implementing aesthetically compatible materials and techniques. Both interventions led to the decrease in the integrity and memory values and the transformation of the aesthetic and identity values. However FA1 led to the decrease of age, documentary, architectural and technical while FA2 led to their loss. This is due to FA2 being implemented in a fashion which is hard to discern from the original elements, and the fact that they weren't originally present affects the authenticity of the building for the sake of aesthetic unity.

4.3. The Intervention - Value Shift System

Figure 4.10. Intervention – Value Shift Matrix part 1. Prepared by the Author.

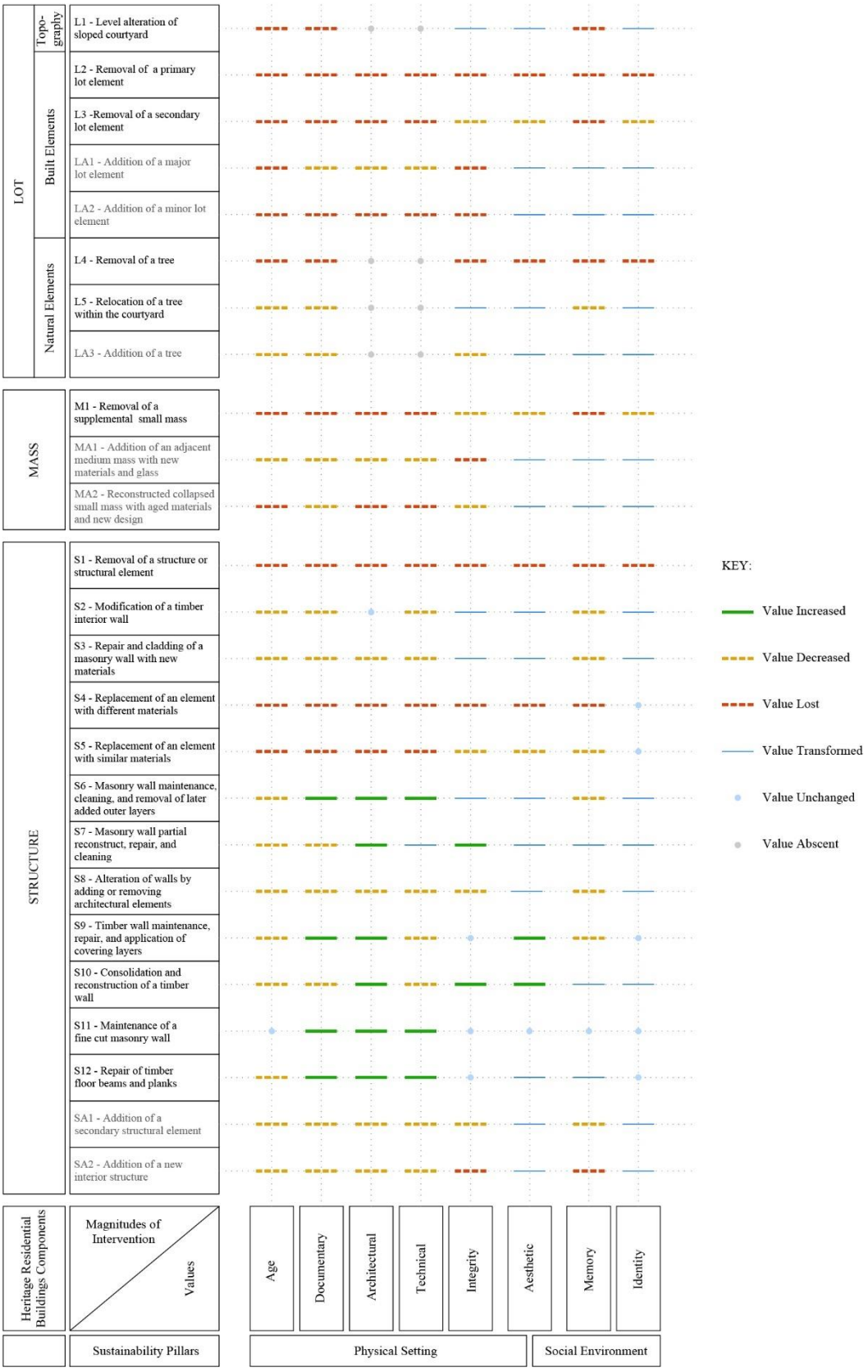
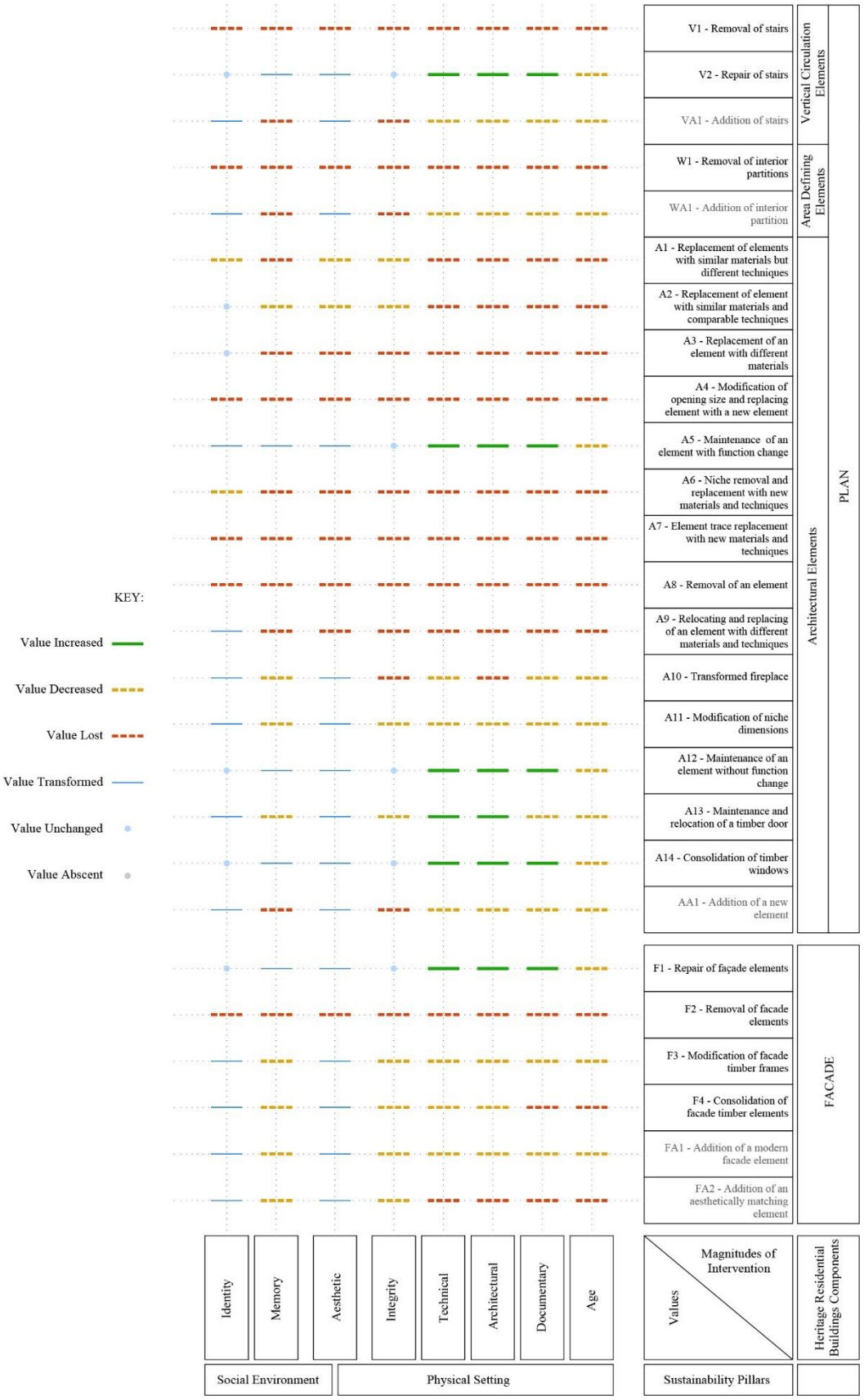


Figure 4.11. Intervention – Value Shift Matrix part 2. Prepared by the Author.



As an outcome of the value shift analysis, some patterns were deduced, and the results were mapped on what is called within this thesis: The Intervention-Value shift matrix. In addition, the value shift analysis allowed for the arrangement of the intervention magnitudes according to their value impact within every component of the building.

As for the results, it was observed that additions affect the physical setting in a more negative manner than the social environment through the loss or decrease in the physical values, whereas the social values transform to accommodate the new users.

Physical values result in decrease or loss shifts more often than the social values due to the higher magnitudes of intervention's severe impact on the physical elements, and the refunctioning of the building which introduced new users. This introduction of new users allows the social values to be transformed rather than lost due to the changing zeitgeist of users and the social interaction they bestow upon the building fabric.

Social values transform more regularly than increase due to the biased nature of social values that change from one user to the other, and the manner by which users bestow these values upon the building.

Moreover, as for the categorization of the intervention magnitudes, the interventions that cause more loss of values than other types of value change are considered the most negatively impactful upon the values of the building and vice versa. Followed by values decreased, whereas interventions that cause a value increase are seen at the other end of the spectrum.

According to the dynamic propagated throughout this thesis, the intervention magnitudes affecting the values more positively assist in the cultural sustainability of the heritage buildings whereas the negatively impactful ones hinder this process of sustainability of cultural heritage.

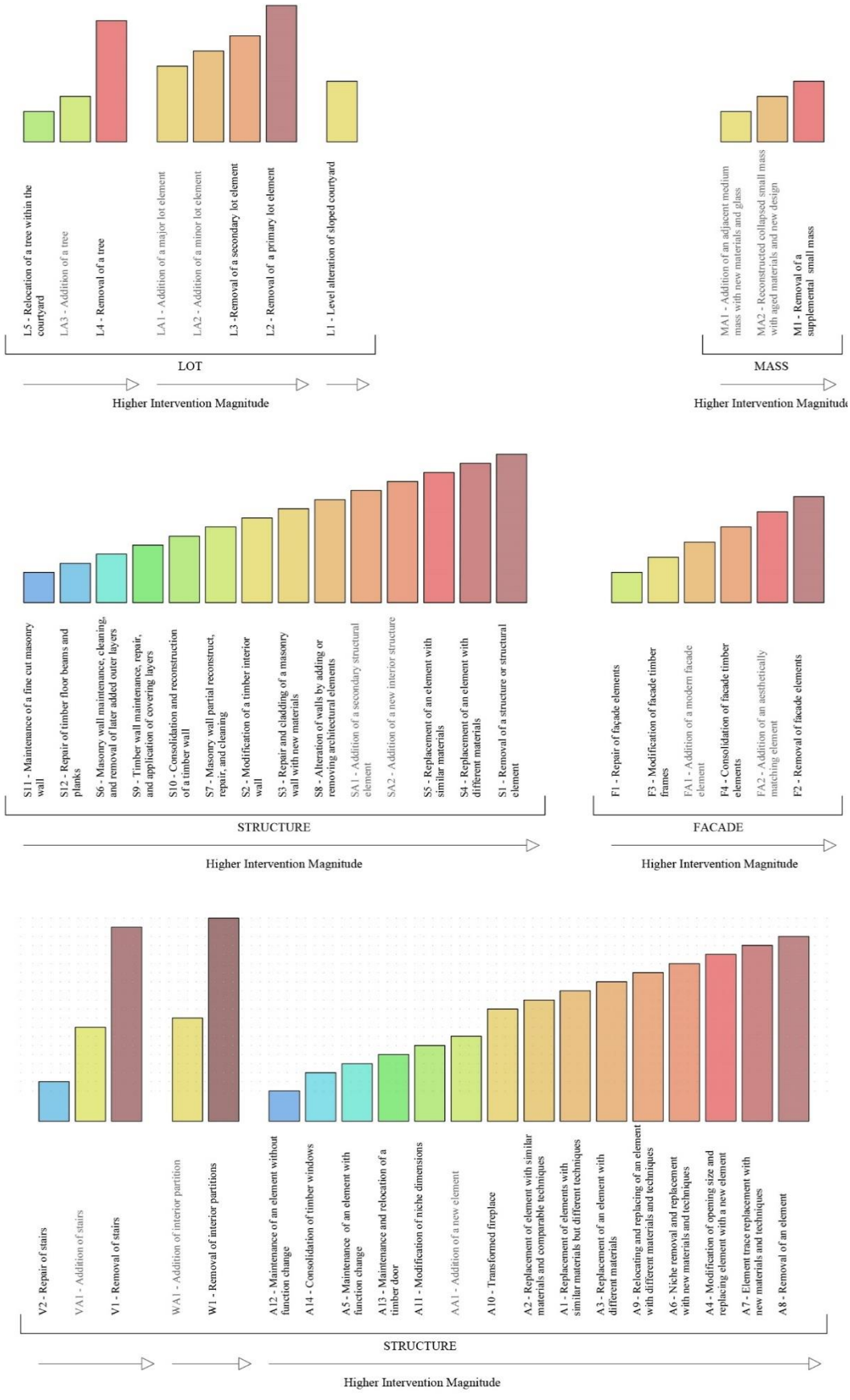


Figure 4.12. Intervention magnitude effect on value. Prepared by the Author.

Chapter 5

CONCLUSION: POST INTERVENTION VALUE SHIFT: A PROACTIVE VALUE - BASED CONSERVATION APPROACH

Conservation of cultural heritage aims for the cultural sustainability of heritage buildings through the reinforcement and proper continuation of the physical setting, social environment, and economic context of the heritage site. The continuation of these pillars is primarily dependent on the reservation and reinforcement of the heritage building values.

These values can likewise be attached to the physical setting and hence physical values, social environment hence the social values, or the economic setting which is not discussed in this thesis. Values are the bestowed and inherent meaning and intangible cultural importance of the building fabric; they are the essence of what gives a building its unique identity and connects the user with the physical aspects within.

The physical values of the heritage residential buildings within Kaleiçi consist of age, documentation, architectural, technical, and integrity, while the social values are personified by aesthetic value, memory, and identity. Interventions that disregard these values and lead to their decrease or removal, thus subsequently affecting the sustainability of the building.

Interventions on the other hand are not predominantly targeted by cultural sustainability or the continuation of values. They are ways to meet an end that the stakeholders plan out for the heritage or historic site. Hence there are certain agendas and development goals that disregard the importance of upkeeping the building values and instead focus on the imagined goal of the project and the projected concepts.

In the case of Kaleiçi the overarching goal was touristic development in order to revitalize the economy of Antalya. Tourism development is one of the main ways to overcome economic deficits and is used as a primary method in obtaining funds for conserving historic and culturally rich sites. Hence tourism as an idea to incentivize economic growth and enrich the economic sustainability of an area is not inherently amiss.

Stakeholders nevertheless propagate some aesthetic choices that elevate the economic and visual benefits over some cornerstone values in the building. Hence what is meant as a way to support culture becomes a detractor of its values. Through these conservation acts, intervention is applied upon the building to reach the intended results. Within the realm of this thesis, the interventions upon the building elements, each within their building component, are called intervention types. These magnitudes do not only affect the building fabric but the intangible aspects which are the values imbedded within the elements.

Hence the term post intervention value shift comes to light to realize the manner in which values changed from pre intervention to post intervention. The change in values can be either a loss, decrease, increase, or transformation upon the building component which the elements are represented in. A value can also be unchanged or abscent within a certain element.

Via this study of intervention types, pre-intervention values, and post intervention value shift, the intervention-value shift matrix is concluded that maps out the connection between the building components, intervention types, values, and sustainability. Furthermore, it resulted in a graph that allows for the categorization of the intervention magnitudes according to their impact on values from least to most. Hence the impact of the interventions on values is visualized such that the interventions with the most and least impacts are made known in each building component. This results in the thesis aim to create a preemptive approach to culturally sustainable value-based conservation.

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