# URBAN RESILIENCE THROUGH COMMUNITY-DRIVEN ARCHITCTURE: THE CASE OF UZUN ÇARŞI

M.M. KESSAF

# Preface

This research emerged from a fascination. From a young age, I've been captivated by the mountain formation that the city of Antakya, Hatay, lies in between. When walking through the Amanos Mountains as a child during the summers, I used to find a lot of shell fossils and it would make me wonder how these objects that were supposed to be in the sea would be found 500 metres higher in the mountains. This marked the beginning of my fascination, wanting to know how the world works and how mountains are formed.

When starting my bachelor education, I decided that I wanted to know more about this topic, and I began to study Earth Science, and later followed by architecture. Writing my thesis back in 2019 at the University of Amsterdam about the old and new design code of Türkiye, I noticed the lack of disaster preparedness even after the devastating 1999 Gölcük earthquake that had long lasting social and political consequences. Although the new design code introduced many new standards and practices for earthquake safety in buildings, the lack of data and financial resources on disaster management was notable. The government's inattentiveness to planned urban development and its insatiable interest in construction earnings are important factors here. In fact, the Union of Chambers of Turkish Engineers and Architects had been advocating for long-term sustainable solutions and pointing out the misconduct in the implementation of the new law. In addition, the citizens' political trust in institutions makes living in earthquake-prone areas in Türkiye difficult.  As a result, these only deepened my fascination. I wanted to search for a solution to make the existing houses in Antakya safe.

But then, time overtook.

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Explore Lab
2024/2025

| | |
|---|---|
| Research Tutor | John Hanna |
| Design Tutor | Roel van de Pas |
| Building Technology Delegate | Rufus van den Ban |
| | Robert Nottrot |

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# 1. Introduction

## 1.1 Problem Statement

At 4:17am, on February 6, 2023, an earthquake with a magnitude of 7.8 on the scale of Richter struck Türkiye and northern Syria. Just 9 hours later another one with a magnitude of 7.5 on the scale of Richter hit again, leaving a catastrophic impact across the region. Over 50,000 lives were lost, and an estimated four million homes were destroyed, leaving more than 15 million residents displaced. Among the affected cities, Antakya, with over 80% of its buildings demolished, endured some of the worst damage (see, fig.1) (Highfield, 2023; Uludağ, 2024). Resources show that Antakya's population decreased around 156.00 people due to the internal migration, which is almost half of its population before the earthquake (Ertaş, 2024; Uludağ, 2024). However, despite the devastation, many inhabitants have chosen not to leave, driven by a powerful attachment to their homeland and a desire to rebuild. This attachment was clearly visible within the Uzun Çarşı, the closed market space in Antakya, Hatay. Being the commercial and social backbone, the Uzun Çarşı is one of the places, within the city of Antakya, that showed a form of resilience quickly after the earthquake. This meant that even though the market was heavily damaged, its inhabitants, its local community and other actors, found a way to adapt towards the new situation of the market and the functionality of the market space could continue.

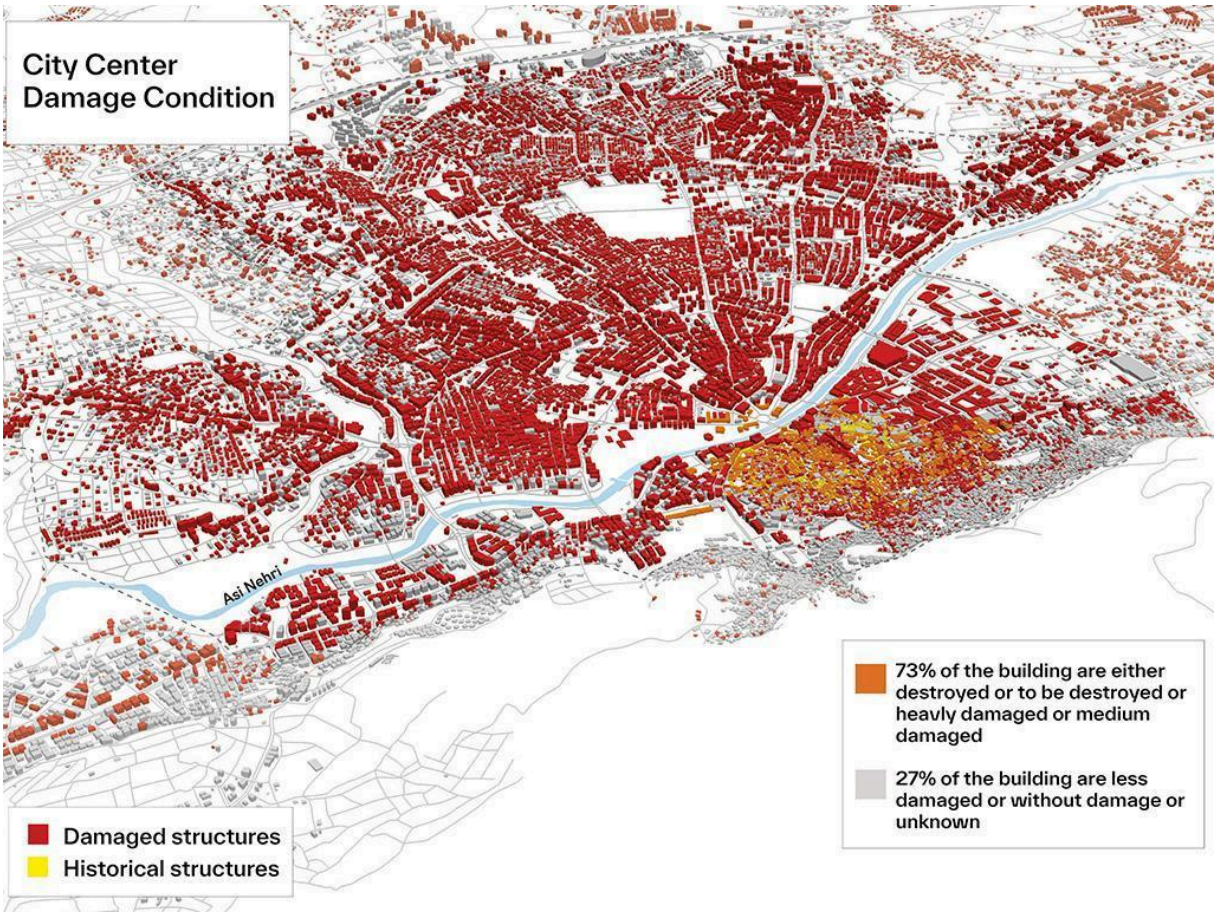



Figure 01, the amount of damaged buildings in Antakya after the 2023 earthquake (MIC-HUB, 2023)

This study explores the nature of resilience in Antakya, focusing on how post-disaster architectural interventions can aid in recovery by enhancing the connection between people and place. It investigates this remarkable process through the concept of urban resilience, which simultaneously enables social and physical healing and produces various complex practices of collectivity.In doing so, this study critically analyses the role of architecture in fostering resilience and supporting the community's emotional and social needs. Contrary to popular belief, the work of architects plays a critical role in navigating the complexities of a crisis by its unsentimental inquiries, but their role does not lay in directly healing (Özden, 2007). As Britain based Lebanese scholar Adrian Lahoud (2010) argues, architectural interventions are complicit to necessitation of healing in the first place. Before initiating any post-disaster architectural intervention, it is essential to critically examine the conditions that shape the current state of a given urban landscape. This process should encourage experimentation that responds to collective needs, ultimately creating spaces that both acknowledge the past and embrace potential futures (Lahoud, 2010).

Therefore, this study aims to explore three key areas. First, it discusses Antakya's community's sense of belonging and identity in their recovery process after the recent earthquake through the concept of resilience and materiality and its intersection between the community and memory. Secondly, it studies Antakya's history through the lens of both historical continuities, present ruptures it endured and its urban resilience, laying the foundation for understanding its cultural significance.Lastly, it examines how architectural interventions might enhance these dimensions and how it can support the city's renewal and sense of belonging, focussing mainly on the Uzun Çarşı in Antakya, Hatay, while proposing possible design outcomes.

## 1.2 Research Questions and Objectives

Architecture can serve as means of expressing and preserving collective memory, identity, and community bonds, all of which are crucial to resilience, but it can also engage with the material remnants, such as rubble and ruins, that are imbued with layers of meaning. Drawing from Ingold, (2013), Gordillo (2014) and Stoler (2013), this study views the city's post-earthquake materiality not as mere debris to be discarded, but as a "textured, affectively charged matter" that forms an essential part of the community's life. These remnants, while marking the loss and suffering of destruction, also serve as potential anchors for place attachment and continuity, offering pathways for healing and resilience. Through its engagement with both tangible materials and intangible memories, this study thus aims to understand how architecture can serve as a catalyst for resilience, enabling the community to reimagine a future while preserving the essence of what was lost. While keeping in mind that the goal is not to impose the community, teach or guide, but rather, trying to interpret the deep, embedded knowledge that is already there. Because the imposed solutions, as James C. Scott discusses in his book *Seeing Like a State* (1998), often fail as they ignore the lived realities and local wisdom of communities. Top-down interventions generally overlook the nuanced and local practices that sustain communities (Scott, 1998). By proposing small interventions, here, the aim is to create a spatial experience that resonates with the community and what it has been doing anyways.

This research revolves around the main question: "*How can architectural interventions help Antakya become a more resilient city against periods of destruction?"* In order to address it, the study investigates the following sub-questions:

1. *What does resilience mean in the context of a destroyed city, particularly as it relates to the concepts of materiality, memory, and identity?*
2. *What are the historical and architectural foundations of Antakya, and how have recent events reshaped its urban landscape?*
3. *How can resilience be reinforced in urban spaces, particularly within the context of Uzun Çarşı?*

## 1.3 Methodology

This research integrates discourse and media analysis, archival research, and case study methods to examine Antakya's post-earthquake recovery. Additionally, it employs ethnographic approaches—including interviews and visual ethnography—as well as spatial, architectural, and urban analysis to understand the evolving dynamics of the city's reconstruction. The literature review synthesizes existing scholarship on resilience and architectural intervention, drawing from multiple disciplines, including architecture and the social sciences, to establish the state of the field. Building on this foundation, the theoretical framework selectively adopts key concepts and perspectives that shape the analytical approach of this study, providing a lens through which Antakya's post-earthquake recovery is examined.This study analyzes reports prepared by governmental and non-governmental organizations, examining their insights and implications for Antakya's post-earthquake recovery. On top of these scientific resources, the fieldwork study brings personal and individual perspectives in order to provide a comprehensive context.

For the first sub-question, a historical review and analysis of Antakya's architectural landscape before and after the 2023 earthquake is conducted, supplemented by an examination of the master plan proposed by the Turkish Design Council (TTV). The second sub-question is explored through The second sub-question is explored through a literature review that examines resilience in destroyed cities at both a conceptual and contextual level. On a broader scale, it engages with interdisciplinary perspectives on resilience, materiality, and reconstruction from anthropology, philosophy, and urban studies, drawing on works by Ingold (2007; 2013), Stoler (2013), Gordillo (2014), Barad (2003), Mačkić (2016), Ammoun (2022), Al-Sabouni (2021), and others. By integrating both global theoretical perspectives and Türkiye-specific analyses, the study bridges conceptual discussions with the realities of Antakya's reconstruction. To address the third sub-question, fieldwork is conducted in the Uzun Çarşı over four separate trips: July 2023, August 2023, November 2023, September 2024. Data was collected through unstructured interviews with market shop owners, street sellers, and construction workers, as well as through personal observations and visual documentation, including photographs of the site. I created a mental map to reflect how the market was remembered and navigated, helping to understand its spatial logic and the emotional connections to its layout. However, it is worth mentioning that the fieldwork faced limitations, including time constraints, restricted access to certain areas due to destruction or ongoing construction work, and the emotional challenges of interacting with individuals affected by the disaster.

# 2. Theoretical Framework

## 2.1 Resilience and Urban Resilience

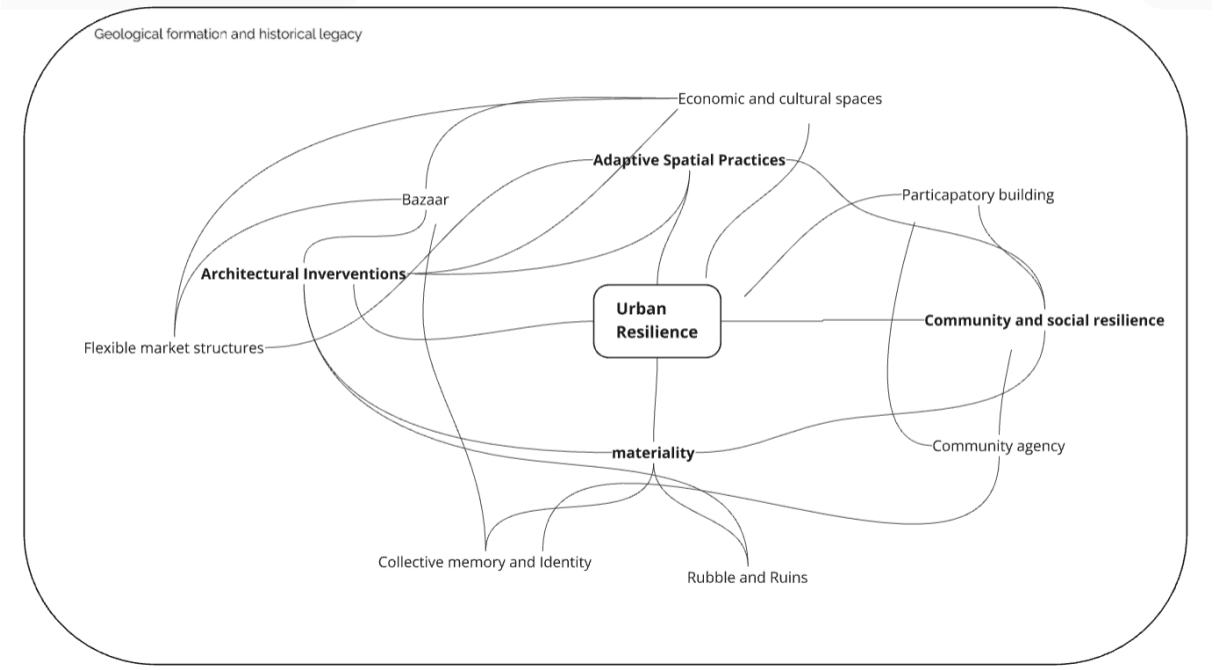



Diagram 01, selected concept within the theoretical framework and there linkages, by author.

Resilience is a multifaceted concept with varying interpretations across fields, such as anthropology, engineering, material science, psychology, economics, ecology, natural hazards, and climate change (Patel & Nosal, 2016). The literature defines the concept of resilience as the capability of a system to recover after experiencing certain shocks (Vale, 2014; Patel and Nosal, 2016; Lahoud, 2010). The concept has also become essential in discussions of disaster recovery and urban development (Esteban, 2021; Patel & Nosal, 2016). In an urban context, resilience can be understood as a system's ability not only to withstand disruptions but to adapt and emerge stronger. Urban resilience incorporates social, physical, economic, institutional, and environmental dimensions, with each component contributing to the city's capacity to absorb, adapt, and transform in response to stress (Rockefeller & ARUP, 2014). As Antakya faces the challenge of recovery following the 2023 earthquake, it offers an opportunity to analyse resilience as both a social and material process—a continuous adaptation to crisis that is grounded in the interaction of people, place, and cultural heritage.

Patel and Nosal (2016) argue that resilience has gained significance in international development and across disciplines, each of which attributes different, overlapping, or complementary themes and meanings to the term. These fields include engineering, material science, psychology, anthropology, economics, ecology, natural hazards, and climate change (Patel & Nosal, 2016). Additionally, they highlight that, due to the multi-dimensional nature of cities and the complexity of urban fragility, defining resilience in an urban context requires integrating knowledge of how processes are interrelated and can create subsidence, as

described in his article *Not resilience, subsidence* by Ammoun (2022), about the the complex collapse in lebanon.
A common meaning of resilience within different disciplines is describing the reaction of a given system to a form of disruption (Vale, 2014). From the perspective of the engineering and material science discipline, resilience is often described as a reaction of a system to a disturbance, stress, and its ability to maintain its pre-stress state (Meerow et al., 2016). Conversely, fields like psychology, anthropology and ecology often see resilience as a system that contains a certain capacity to change in response to stress and it constructs a more robust post-stress state that is capable of withstanding future stress. It is seen as an on-going process, where after stress, equilibrium follows and new or even improved states of the system occur (Walker & Salt, 2012; Vale & Campanella, 2005). The interpretation of a resilient urban context includes all the different meanings from diverse professions and fields of study. Additionally, it's dependent by multiple, interrelated, categorical dimensions (social, physical, economical, institutional, and natural)/qualities, and different actors of agency (government and its institutions, municipal authorities, local cooperatives, communities and individuals) and it is site dependent (Esteban, 2021; Godschalk 2003; Patel and Nosal, 2016). As Rockfeller and ARUP, 2014, mention in their framework of a resilient city, *leadership and strategy* is an important dimension within the framework. As without leadership from a governmental or institutional level, resilience is left upon the activity on a community level alone. Appendix 1. shows the current stakeholder map of the applied framework for Antakya.

This study interprets a city as ever changing and it should not thrive towards a pre-stress state but rather see it as an on-going process and uses uncertainties and stress to improve its state. This study adopts and builds upon Patel and Nosal's (2016, p. XX) definition of urban resilience, which is defined as:

> The ability to activate protective qualities and processes at the individual, community, institutional and systems level to engage with hazards or stressors and cooperate with each other to maintain or recover functionality and prosper while adapting to a new equilibrium and minimising the accumulation of preexisting or additional risks and vulnerabilities. (Patel and Nosal, p. XX, 2016)

Patel and Nosal's definition aligns with Walker and Salts (2012) concept of resilience, that views a system's capacity for flexibility and renewal, where communities adapt and evolve in response to stressors rather than merely returning to a pre-crisis state. Similarly, in the context of urban resilience, Meerow, Newell, and Stults (2016) propose that cities are complex adaptive systems, requiring resilience strategies that integrate social, environmental, and economic factors for effective long-term adaptation. Building further on the understanding of resilience, the scholar of politics and international studies, Charlotte Heath-Kelly focuses in her book *Death and Security* mainly on the role that collective memory plays within the recovery process. Her field of expertise is analysing the effects of traumas at mainly post-terrorist sites, such as the WTC in New York and the bombsite in Bali. However, her arguments about the effects of collective memory can also be applied to natural disasters. Heath-Kelly stresses that recovery policies are seldom seen by governmental organisations as commercial opportunities. According to her, disaster recovery policies often transform tragic events into opportunities for economic growth and resilience. Post-disaster recovery involves not only rebuilding infrastructure but also removing reminders

of death to stimulate commercial activity and project an image of vitality and strength. In this context, economic development becomes a marker of resilience, demonstrating society's capacity to adapt and overcome adversity. Urban design plays a key role in this process. It aims to erase or hide physical reminders of disaster, such as damaged or abandoned areas, while promoting a lively and economically dynamic city. This creates a “memory” of resilience, projecting a hopeful future while covering up the darker aspects of the past. However, recovery policies recognize that physical and economic rebuilding alone are not enough to fully erase the impact of the disaster.

The real challenge lies in human memory. While buildings and infrastructure can be quickly repaired, human memories of death and destruction linger. Policymakers understand that memories of disaster continue to affect people and pose a threat to the state’s image of control and security. Because of this, recovery efforts extend to psychological interventions—such as counselling and memorials—to help people process trauma. These actions, while they may seem like compassionate gestures, actually serve as "security measures." By addressing trauma and managing memories, they help reestablish a sense of order and authority over life and death, reinforcing political stability (Heath-Kelly, 2016).

Since urban resilience is deeply rooted in the cultural and material fabric of a city, it also hinges on the cities’ ability to sustain memory, identity, and community in the aftermath of disasters, factors critical to the cultural continuity of places (Vale and Campanella, 2005), as in Antakya. This is confirmed by Dovey and King (2011), who highlight how built environments and social structures support resilience through what they call “spatial agency,” where architecture facilitates recovery and empowers communities to reconstruct their shared environment.

Lahoud (2010) offers a perspective that deepens this understanding. He argues that resilience is not only a material or spatial process but also a cognitive and perceptual one. Resilience can be seen as a temporal and cognitive process, in which communities must renegotiate their relationship with disrupted spaces. In the pre-trauma state, individuals engage in connective synthesis, forming networks of memory and habit that allow them to navigate their environment intuitively. When disaster strikes, this synthesis is ruptured, exiling individuals from their cognitive landscape and disrupting their ability to make sense of place. Architectural interventions can either reinforce or inhibit this recovery process (Lahoud, 2010). By introducing familiar spatial elements and material references, architecture can aid in the slow reconstruction of psychic continuity, not by enforcing a fixed pathway to healing, but by allowing for a dynamic, adaptive process in which individuals reconnect with their built environment at their own pace. Rather than erasing trauma, resilience involves embedding its traces into an evolving spatial reality—one that does not follow a linear progression but remains open to reinterpretation and transformation. Drawing on the work of Lahoud (2010), who suggests that architectural interventions should respond to collective needs rather than impose preordained solutions, this perspective acknowledges that healing is neither uniform nor predictable. Historical cases, such as the post-war reconstruction of Sarajevo (Mačkić,

2016) or the adaptive reuse of ruins in Beirut (Ammoun, 2022), illustrate how cities recover through layered, negotiated processes rather than predefined strategies. In this way, spatial interventions do not dictate a singular outcome but instead establish conditions that can support, strengthen, or even challenge existing community dynamics, fostering an ongoing dialogue between memory, materiality, and adaptation.

## 2.2 Materiality: Rubble and Ruins

While resilience encompasses social, economic, and institutional factors, it is equally grounded in the physical materiality that composes an urban landscape. In contexts like Antakya, where destruction has left an indelible mark on the cityscape, the material remains—ruins, rubble, and even repaired structures—serve not only as reminders of loss but as enduring, textured entities with potential to shape identity, memory, and recovery. Exploring the concept of materiality within Antakya's post-earthquake recovery allows for a deeper understanding of how materials become intertwined with collective identity and resilience. As Toufic (2003) argues, even debris and ruins hold a haunting quality that serves as an uneasy yet important link to the past, embodying the loss while also guiding communities toward a renewed future. But with this, the meaning of *rubble* and/or *ruins* becomes a question with an ontological nature, the same goes with *material,* although Ingold (2007) has another idea about this. Ingold (2017) argues that materiality is not solely an ontological concept but is deeply tied to a sensory exploration of materials. It rejects the separation between physical matter and cognitive theory, emphasizing their inseparability and mutual influence. In addition, David Pye (1968) states that the nature of a stone, its stoniness, is not defined by its objectively measurable properties (Pye, 1968, p. 47), rather, it embodies our personal tastes and subjective interpretations of the qualities we associate it with (Ingold, 2007). Karen Barad's concept of materiality, rooted in her theory of agential realism, complements Ingold's emphasis on materiality as dynamic and relational. Barad (2003) highlights the inseparability of matter and meaning, proposing that materiality emerges through intra-actions—mutual interactions between human and nonhuman agents. This aligns with Ingold's (2007) view of materials as active participants in the flows of the world. Together, these perspectives reject the static notion of materiality, instead framing it as an evolving and interactive phenomenon that shapes and is shaped by its environment.

When applied to Antakya, the materials found within the city, within the remnants of destruction or materials of recovery acts as a link where the past informs and transforms the present, anchoring memory while encouraging new ones. These theoretical perspectives resonate with the physical and symbolic significance of rubble and ruins in Antakya, a city shaped by earthquake-induced destruction. Within this framework, rubble and ruins serve as material witnesses to loss and agents of urban renewal, embodying the entwinement of memory, identity, and resilience. As remnants of destruction, they are not merely inert objects, but embedded in the processes of materiality, as conceptualized by thinkers like Ingold and Barad. In the context of post-disaster recovery, thinkers such as Gordillo (2014) and Stoler (2013) underscore the layered meanings inherent in remnants of destruction. Gordillo describes rubble as "affectively charged matter," evoking different meanings across social groups and fostering resilience through its role in memory-making. Focusing on rubble it can have an active role in destabilizing spaces and generate new configurations of power, memory and social relationships (Gordillo, 2014). Similarly, Stoler highlights how the ruins left by disaster or decay transcend mere "waste"; instead, they carry histories that continually evolve, morphing into symbols of endurance and adaptability. However, both Stoler (2013)

and Heath-Kelly (2016), argue that the governments are aware of how to shape the narratives of recovery and resilience instrumentalizing rubble and ruins. Stoler (2013) points out how remnants of destruction are reframed as heritage or memorialized sites, while erasing the memory of the violence or neglect that created them. Similarly, Heath-Kelly (2016), argues that these remnants are used as *clean* symbols of resilience to promote economic and political stability. This governmental appropriation of materiality raises critical questions about whose memories and interests are prioritized in the reconstruction of post-disaster landscapes. Understanding how the notion of rubble and ruins is entangled with materiality and memory, and how this can be used within certain agencies, gives a framework on how urban resilience can operate within the recovery process of a city such as Antakya.

Concludingly, urban resilience within a natural disaster context is linked to the dynamic relationship between materiality and social systems. Within this context urban resilience should not be just about rebuilding structures but about fostering continuity between the past and the future. Rubble and ruins act as a material anchor, where memory is embedded in the evolving urban landscape. And rather than imposing rigid recovery and reconstruction strategies, resilience should allow transformation, where individuals gradually reclaim and reinterpret their surroundings. By integrating material remnants into adaptive and participatory design processes, within the recovery process the spatial and cognitive connections are preserved, allowing the built environment to develop in continuity within its history and lived experiences, including the disaster.

## 2.3 Community and resilience

As explored previously there is an important social dimension within the concept of resilience, one that enables communities to recover and thrive in the aftermath of crises. The social aspect of resilience lies in the ability of communities to leverage collective memory, mutual support, and collaborative action. Vale and Campanella (2005) argue that the essence of urban recovery is tied to the preservation of identity and memory, which provides a foundation for rebuilding. Similarly, Ingold (2013) emphasizes the relational nature of human environments, where the act of “making weaves” individuals and communities together in shared endeavours. This is evident in Antakya, where the community’s determination to *prepare* the Uzun Çarşı, in such a way that it demonstrates how collective efforts both restore functionality and reinforce social cohesion. Examples of these will be given in chapter 4.

As another way of rebuilding the community, Stoler (2013) proposes engaging with remnants of destruction—what she terms "imperial debris"—that allows communities to reclaim agency and envision a renewed future. Collaborative construction amplifies these dynamics, transforming rebuilding into an act of solidarity and empowerment. By working together, the people of Antakya will not only reestablish a critical economic and social space but also reaffirm their shared identity. Esteban (2022) explains the significance of such collective engagement in fostering resilience, noting that mutual trust and cooperation are vital for sustaining adaptive capacity in the face of uncertainty. Furthermore, the process of making together aligns with Ingold’s (2013) view that resilience is built through interconnected practices of living and creating, where communities actively shape their environments. These shared efforts mitigate the psychological impact of trauma, enhance collective efficacy, and imbue rebuilt spaces with renewed cultural and emotional significance.

Furthermore, the interplay between community and resilience highlights the critical role of collective agency in disaster recovery. Communities are not passive recipients of aid but active agents of transformation. As Vale and Campanella (2005) note, the true resilience of cities lies in their capacity to adapt while maintaining cultural continuity. This aligns with Stoler's (2013) insights on how communities transform ruins into anchors for memory and renewal. Antakya's experience illustrates that resilience is not merely about returning to a pre-disaster state but about forging a new path that incorporates the lessons of the past. The convergence of social bonds, collective action, and shared purpose underscores that resilience is fundamentally a communal endeavour, shaped by the interplay of memory, identity, and adaptive practices.Therefore, the community is a critical driver of resilience, emphasizing that social networks, when embedded within adaptable architectural frameworks, can sustain urban life through challenging periods and transformation.

# 3. History of Antakya: A Journey of Ruptures and Resilience

The theoretical framework outlined earlier explored the complex relationships between urban resilience, architectural vulnerability, and communities, highlighting how seismic ruptures not only destabilize cities physically but also reshape their sociocultural landscapes. Building on this foundation, this chapter delves into the historical trajectory of Antakya, a city where the forces of geological disruption have repeatedly intersected with its urban evolution. It focuses on important moments where earthquakes have redefined Antakya's built environment and cultural identity to understand how Antakya's unique geography and seismic activity have shaped its resilience and fragility over time. By situating Antakya's history within a framework of recurring ruptures it establishes a temporal context for understanding the city's contemporary challenges. This approach not only reveals the city's enduring vulnerabilities but also provides critical insights into strategies for rebuilding with resilience today. However, rather than presenting a comprehensive chronology, it examines key episodes that underscore the city's responses to geological rupture and it seeks to illuminate the patterns and vulnerabilities that have persisted across centuries, offering critical lessons for the present.

## 3.1 The geological Formation of Antakya

Antakya, strategically located at the convergence of tectonic boundaries, occupies a geological landscape that has been shaped by millennia of seismic activity. Originally submerged beneath the Bitlis Zagros Ocean, the region's geological evolution was profoundly altered during the late Miocene epoch with the closure of the Eastern Mediterranean Sea. This transformation occurred due to the collision between the northward-moving Arabian Plate and the southwestward-moving Anatolian Plate, a cataclysmic event that uplifted the ocean floor, effectively closing the Bitlis Zagros Ocean and setting the stage for the formation of Antakya. The tectonic complexity of the region is further compounded by the presence of the Cyprus Arc, a 100-kilometer-long fault segment that plays a pivotal role in the area's geological evolution. Moving transversely towards the Dead Sea Fault Zone (DSF), the Cyprus Arc led to the formation of the Cyprus-Antakya Fault Zone. This sharp, eastward-oriented plate boundary marks the junction between the African and Anatolian Plates. The resulting dextral (right-lateral) displacement has created significant geological features that define the current landscape of Antakya, including the Amik Basin, the Amanos Fault Zone, and the Hacıpaşa Fault Zone (Tari et al., 2013).

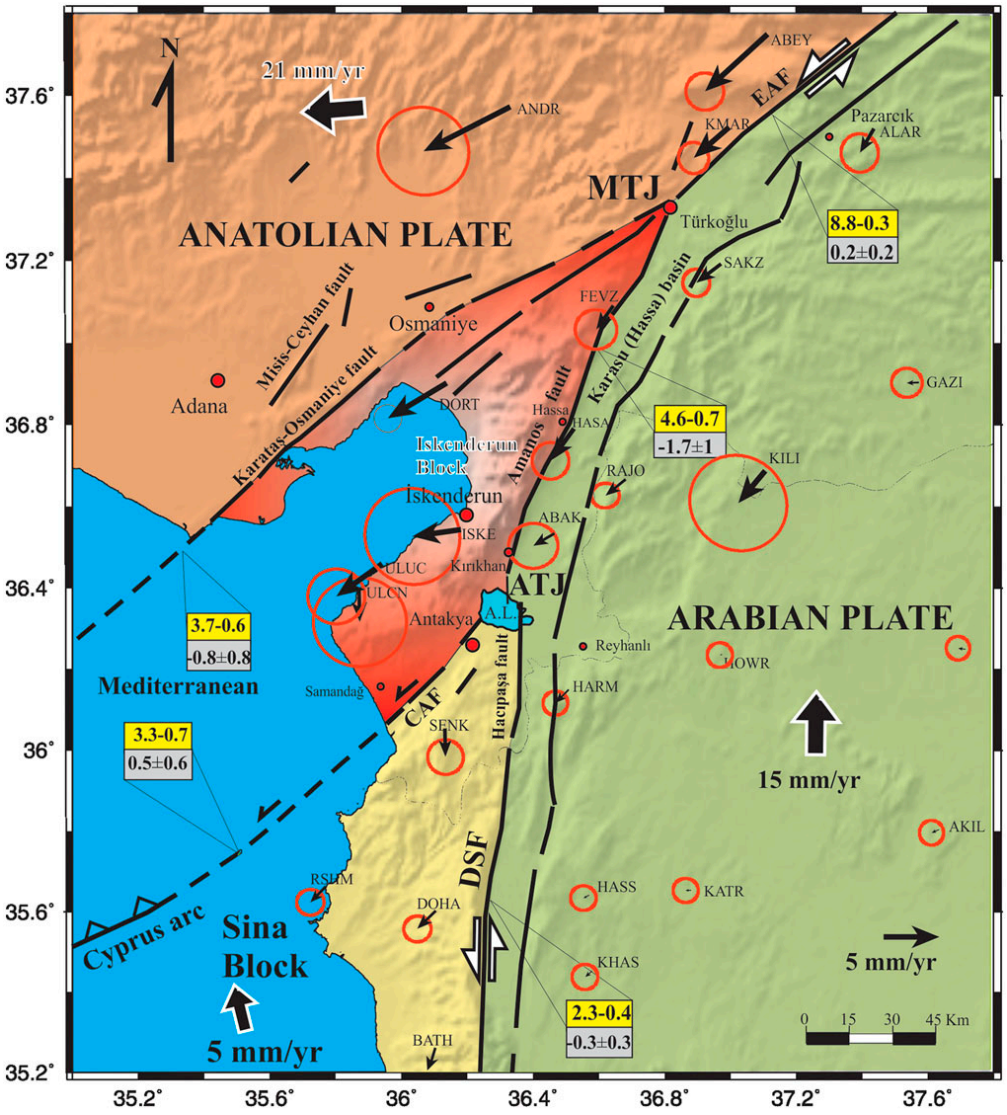



Figure 02, Tectonic movement between the Arabian Plate, African Plate and Anatolian Plate, with Antakya in between the three plates, Tari et al., (2013)

This tectonic configuration places Antakya in a state of constant flux, with the dextral motion of the plates along the Cyprus-Antakya Fault Zone triggering recurrent seismic events approximately every 100 to 200 years. The city's vulnerability to these forces has been a defining characteristic of its existence, with each rupture deeply influencing its urban fabric and architectural resilience. The last major earthquake, in 1894, foreshadowed the devastating event of 2023 (Erel & Adatepe, 2007). According to many local activists, it is not the earthquake itself that kills people, but rather the architecture and infrastructure built on vulnerable ground that causes destruction, highlighting Antakya's geological and structural vulnerability (Altunsu et al., 2024).

The ongoing tectonic forces have not only reshaped Antakya's physical environment but have also significantly influenced its socio-cultural development. The cycles of rupture and recovery have become a defining feature of the city's resilience and fragility, reflecting broader patterns of adaptation within its dynamic tectonic context. The persistent seismic threat, coupled with the interplay between architecture, infrastructure, and the natural environment, underscores the necessity for a deeper understanding of the city's geological foundations. This knowledge is essential not only for interpreting Antakya's historical challenges but also for guiding

contemporary strategies for its reconstruction, ensuring a balance between geological resilience and cultural preservation. Antakya’s formation and enduring seismic activity are inextricably linked to the region's tectonic processes. The perpetual movement of the fault lines has instilled a cyclical nature of rupture and renewal within the city. As we consider the future of Antakya, it is crucial to recognize that its history is not solely that of architectural development, but of a city continually reshaped by geological forces. Each seismic event offers both a challenge and an opportunity for reconstruction, reinforcing the notion that, in Antakya, the boundary between disaster and recovery is ever in motion.

## 3.2 Historical formation of antakya

Located in the Province of Hatay in present-day Türkiye, Antakya has long been known by various names, each reflective of its shifting historical significance. In antiquity, the city was renowned as "Orientis Opicum Pulcrum," meaning the "Queen of the East," highlighting its esteemed position in the broader Mediterranean world. Positioned strategically between three mountains and bisected by the Orontes River (also known as the Asi River), Antakya's location has long been central to its identity. The Orontes, a 571-kilometer-long river, originates in Lebanon and flows through Syria, before emptying into the Mediterranean Sea, see Figure 03. The city's geographical setting, nestled between these mountains and at the confluence of significant trade routes, made it not only an ideal center of commerce and culture but also an integral node for religious and political movements across the centuries, see figure 04.

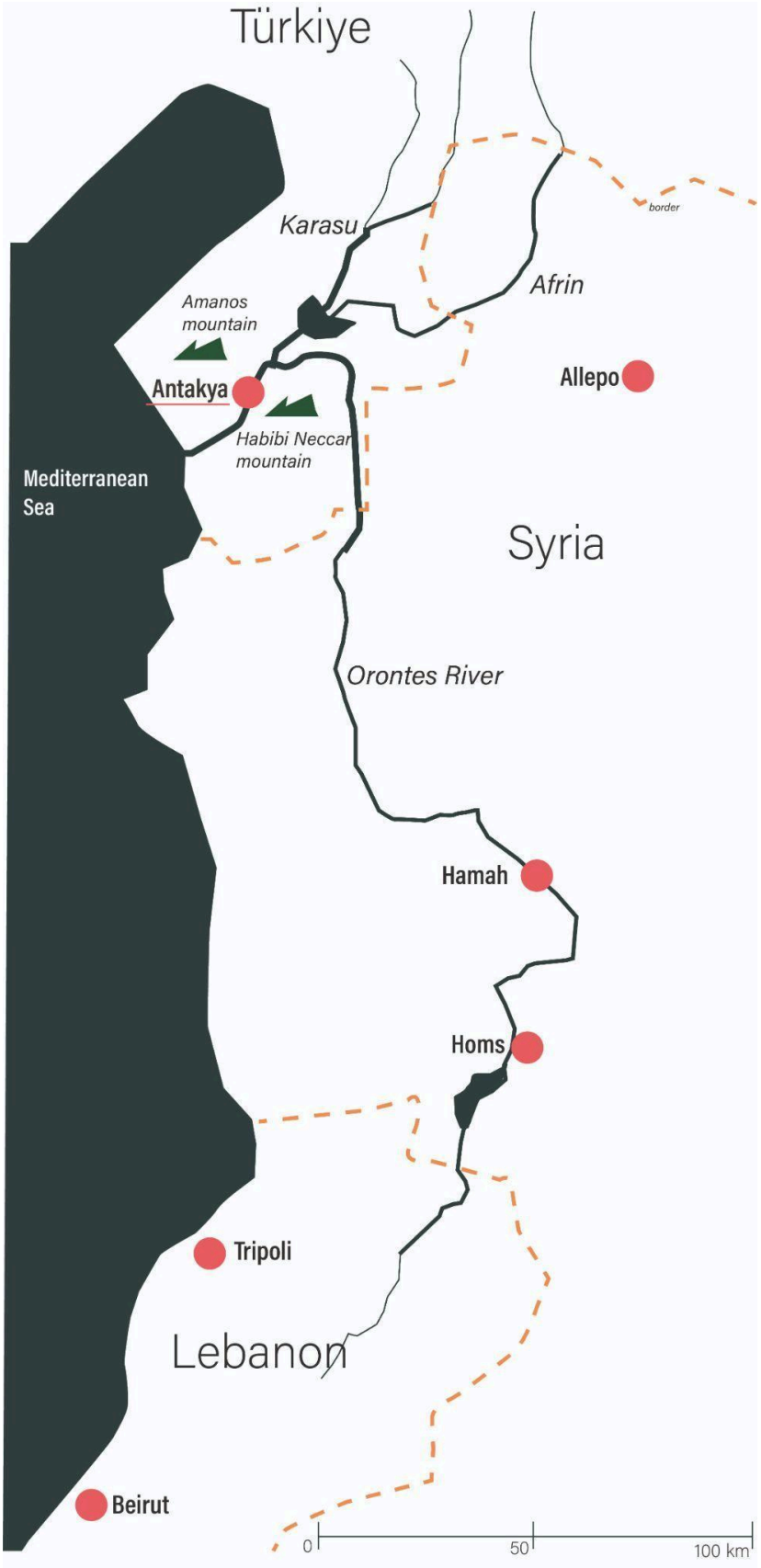



Figure 03, shows the Orontes river flowing from Lebanon, Syria, through Antakya towards the Mediterranean Sea, from author.

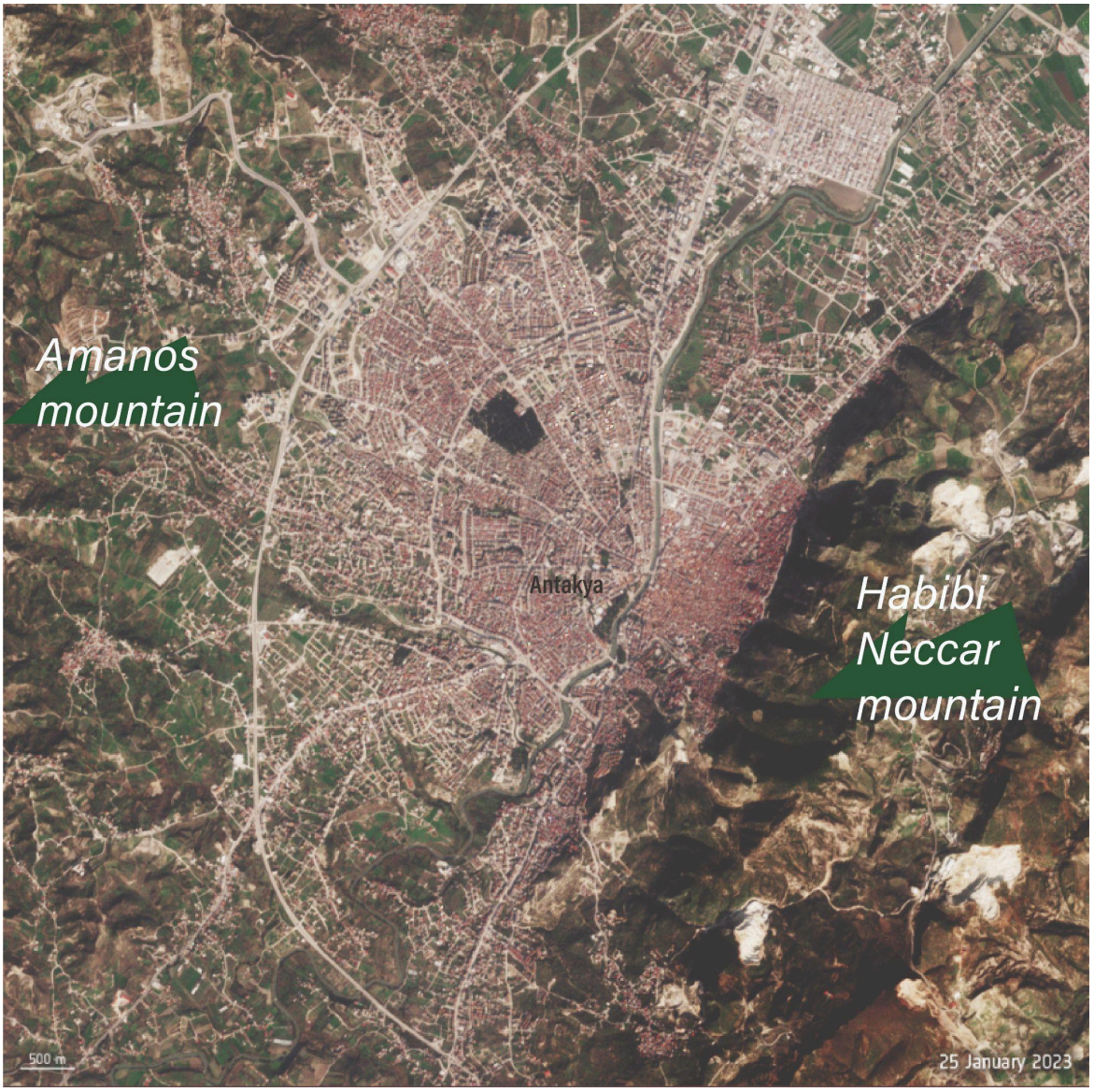


Figure 04, The city Antakya against the Habibi Neccar Mountain and the Asi River flowing in between. European Space Agency (2023).

In addition to its ancient designation as the Queen of the East, the city was known by multiple names throughout its history, reflecting its international and multi-layered identity: "Antioch," "Antakiye," "Antioch on the Orontes," and "Antioch near Daphne." The last of these, referencing the famous sanctuary of Daphne, indicates the region's long standing cultural and religious significance (Downey, 1961). Antakya's historical landscape is thus woven from a tapestry of layered identities—each signifying its distinct role in antiquity, and later in the complex interplay of empires and cultures.

Antakya's urban development can be traced back to the Seleucid Empire in the 3rd century BCE, when it was founded by Seleucus I Nicator as one of the many cities established following the fragmentation of Alexander the Great's empire. The Seleucid Empire introduced a Hippodamian grid design for urban planning, an influential model that would shape the city's layout for centuries. This early architectural blueprint set the foundation for Antakya's transformation into one of the region's most significant cities under successive empires. With the rise of the Roman Empire in the 1st century BCE, Antakya reached its peak as a thriving urban center. During Roman rule (64 BCE – 395 CE), the city became one of the largest and most prosperous in the

Roman East. The Romans significantly improved the city's grid plan, and under their governance, Antakya became a vital hub for Christianity, trade, and tourism. As one of the early centers of Christian thought and worship, it was here that the term "Christian" was coined, and the city's strategic location along the Mediterranean trade routes further amplified its importance. Antakya's urban spaces from this period include monumental structures such as Roman baths, theaters, and temples, alongside the iconic grid pattern of streets that allowed for the organized expansion of the city.

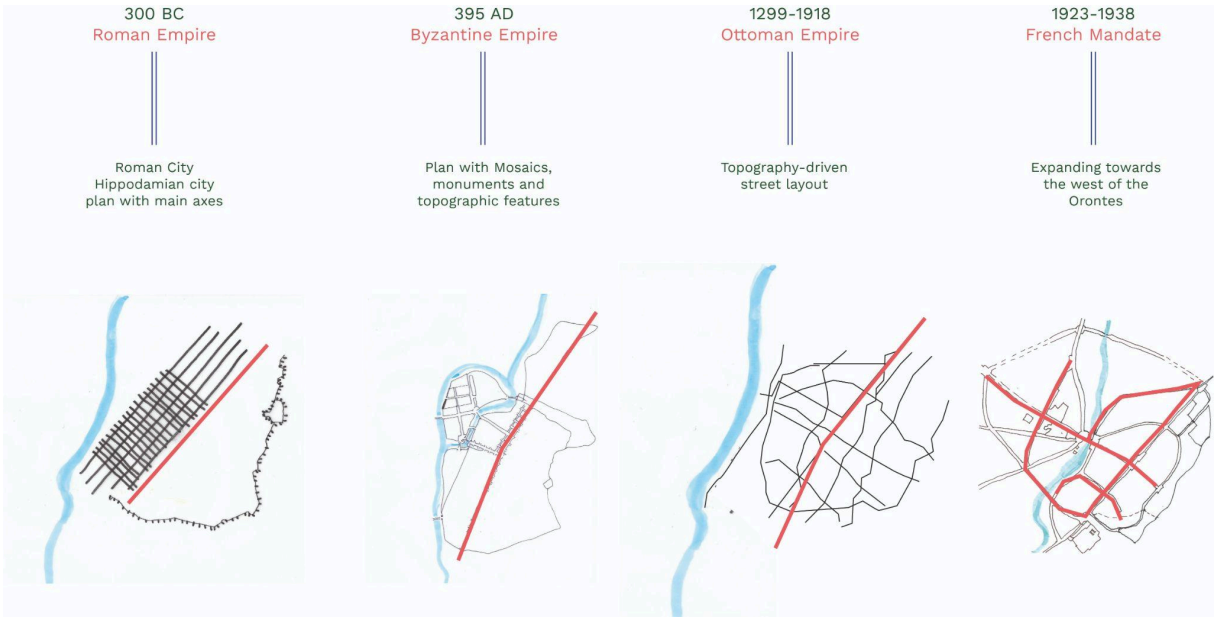



Figure 05, The maps illustrate the lasting impact of different empires on Antakya historical urban pattern. Traces of the Roman-, Byzantin-, and Ottoman Empire and the French Mandate period remain embedded in the city's layout today. Edited by author.

Following the decline of the Roman Empire, Antakya came under the control of the Byzantine Empire (395–638 and 968–1085 CE). The Byzantines maintained the city's importance as an ecclesiastical center, and the architectural legacy of the Roman period continued to influence its urban fabric (Rifaioglu, 2014). Despite the occasional setbacks caused by external forces, Antakya's role in Byzantine religious and political life remained vital. After the fall of the Byzantine Empire in the 7th century, Antakya came under the control of various Arab Caliphates (638–968 CE), including the Umayyad and Abbasid Caliphates, whose cultural and scientific contributions would leave lasting impressions on the city's urban landscape. The Seljuk Empire (1085–1098) briefly restored some of the city's former prominence, but it was during the Crusader period (1098–1268) that Antakya once again became a focal point of regional politics. The Crusaders, having captured the city during the First Crusade, made Antakya an important node on the Silk Road, linking the Mediterranean world to the East. This connection facilitated the exchange of goods, particularly spices, which played a crucial role in the region's economy and later became central to Antakya's markets (Güngördü, 2016). This period saw the construction of fortifications, churches, and other religious buildings, underscoring Antakya's continued religious and military importance (Rifaioglu, 2014).

However, the political and economic fortunes of Antakya began to decline in the late 13th century. With the rise of Aleppo, Damascus, and Beirut as dominant regional powers, Antakya's status as a major center of influence eroded. By 1268, with the rise of the Mamluks (1268–1516), the city lost much of its former significance. As the Mamluks consolidated their control over the region, Antakya was no longer at the forefront of political or religious affairs, its once-thriving urban core

gradually fading into obscurity. The city's waning importance led to its designation as one of the "dead cities" surrounding Aleppo, a term which reflects its diminished role in the region's political and cultural landscape. Under Ottoman rule (1516–1918), Antakya retained a certain level of importance, though it was now a relatively peripheral city within the Ottoman Empire. The Ottomans' primary focus was on consolidating their control over the Levant, with the rise of other cities such as Damascus and Aleppo taking precedence. Antakya's Ottoman-era architecture remains in the form of mosques, caravanserais, and other structures that offer glimpses of its storied past. In the early 20th century, following the dissolution of the Ottoman Empire, Antakya came under the French Mandate (1918–1938). During this period, the city's demographic composition shifted, with significant changes in both its religious and ethnic makeup. Figure 06, shows the cover of the tourist guide written by Paul Jacquot in 1931, to attract more French tourists to Antakya. In 1939, Antakya was unified with the Republic of Turkey, marking the final chapter in its millennia-long history of changing rule and identity. This period of unification also symbolized the end of Antakya's time as a multicultural crossroads of civilizations, giving way to a more homogenized modern identity within the context of the Republic.

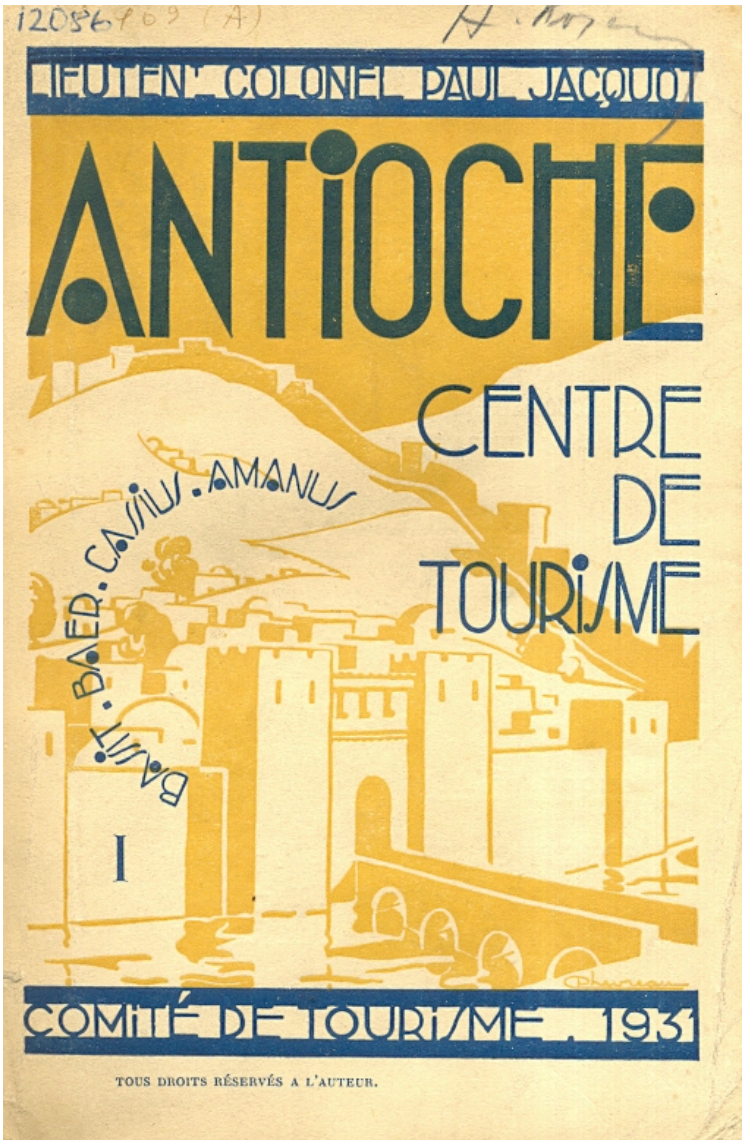



Figure 06, In his tourist guide Jacquot describes Antakya with his orientalist perspective 'It is always the same little city, characterized by a network of narrow streets, alleys, and

cul-de-sacs. Its worn, uneven squares and cemeteries filled with white gravestones contribute to its distinctive atmosphere.' ( Jacquot, 1931 p. 344).

### Antakya's Urban Resilience

Through its long history, Antakya has emerged as a city defined by resilience and adaptability. From its status as the "Queen of the East" to its decline and reemergence under various empires, the city has been a witness to the ebb and flow of cultures, religions, and political powers. Despite enduring the devastation of 7 major earthquakes in its history (Erel & Adatepe, 2007), Antakya's empires and communities have demonstrated that the resilience of Antakya is rooted within the cultural and material fabric of the city. In the aftermath memory identity and community continued and each empire that ruled Antakya left its own architectural and urban imprint, resulting in a cityscape that is an intricate layering of diverse historical periods. The ancient grid plan, Roman baths, Byzantine churches, Crusader fortifications, Mamluk-era mosques, Ottoman caravanserais, and French Mandate-era buildings all stand as testaments to Antakya's enduring legacy.

This multilayered urban heritage, forged through millennia of political, economic, and cultural transformations, offers a valuable window into the dynamic relationship between cities and empires. The city's strategic location, between the mountains and along the Orontes River, and its connection to the Mediterranean, have ensured that Antakya remains a versatile and enduring symbol of urban resilience, continuing to adapt to the complex pressures and opportunities of its environment. From its golden age to its relative decline, Antakya's history is a reminder of the transformative power of geography, culture, and empire. As Antakya's historical layers reflect its resilience through centuries of change, the city now faces a new chapter marked by rupture and recovery. The weight of its past intertwines with the present challenges.

## 3.3 Antakya Now: Rupture and Recovery in the Shadow of Disaster

### A City of Ghosts to masterplans

> *It was because these houses had become ruins by being deserted that the war got extended until they began to turn explicitly into ruins, to manifest their being already ruins. (Toufic, 2003)*

The path to rebuilding is not only one of physica labour but of collective mourning and healing. The rupture caused by the earthquake has disrupted not only the built environment but also the deep-rooted sense of place, memory, and identity embedded in these spaces. The road to recovery will be long, but the resilience of the people who call Antakya home will be integral to its eventual rebirth.

In the interim, Antakya finds itself at a crossroads, caught between the weight of its history and the uncertainty of its future. The city remains both a literal and symbolic space of ruins—ruins that were made visible by disaster, but were always present, waiting to be acknowledged. This duality of destruction and potential regeneration brings with it a profound reflection on the cyclical nature of conflict and neglect, and the long journey toward recovery that lies ahead.

Toufic's (2003) book mainly explores cultural loss and disaster, but his quote can also be seen as a commentary on the cyclical and self-perpetuating nature of destruction. This idea can be useful in understanding Antakya's history and resilience. The abandonment and neglect of the houses (perhaps symbolic of a community or society) initially made them "ruins" in a figurative sense.

This abandonment contributed to the prolongation of the war, which in turn caused these houses to become actual, physical ruins. In essence, the pre-existing state of neglect and abandonment set the stage for continued conflict, which then made the destruction and ruin overt and undeniable. The war didn’t just cause the ruin; it revealed the ruin that was already there in a latent form.

This reflection echoed through the deserted streets of Antakya, where the present state of decay feels like an extension of a history that has long been in the making. In the aftermath of the 2023 earthquake, Antakya's once-thriving urban spaces have transformed into a landscape of broken memories and forgotten histories. My family's initial description of the city as a “ghost town” took on profound meaning only when I visited it myself (M. Kessaf, personal communication, February 2023). A ghost town, according to the Cambridge Dictionary, is a town where a few or no people now live—a town that was busy in the past but is now empty or nearly empty because the activities that kept people there have stopped. Yet, Antakya’s emptiness was more than physical—it marked the disruption of identity, continuity, and community. No words could truly capture the depth of what the city and its people had endured.

Despite the magnitude of the disaster, there are plans for Antakya’s recovery. The Turkish government, the Turkish Design Council in collaboration with Foster and Partners and many other firms (see appendix 1), has initiated a master plan aimed at preserving the city’s 2,300-year-old cultural heritage while ensuring resilience, sustainability, and livability (Highfield, 2023). The masterplan of Foster and Partners prioritizes community engagement, improved transportation infrastructure, and an open-space strategy that integrates diverse programming and enhances green spaces to improve the overall quality of life. However, these efforts have primarily focused on the modern parts of Antakya, while the historic core, including the Uzun Çarşı, initially remained unaddressed due to the need for comprehensive research before structural interventions. Given Antakya’s layered history and its role as a commercial and cultural hub, the recovery of the historic center is essential in preserving the city’s identity and ensuring a community-driven, resilient reconstruction.

Figure 07, shows the master plan of Antakya, Hatay, the historical part of Antakya, in white is not taken into account within the masterplan. (Turkish Design Council, 2023).

# 4. An analysis of Uzun Çarşı

As Antakya is being rebuild, the Uzun Çarşı stands as a testament to resilience, quickly regaining its role as a vital economic and social hub. Exploring its transformation offers insight into how historic marketplaces adapt in times of crisis and contribute to urban recovery.Understanding Uzun Çarşı's evolution, spatial dynamics, and its function as a site of collective recovery is therefore essential in exploring how historical marketplaces contribute to urban resilience.

## 4.1 Understanding Uzun Çarşı

Figure 08, Historical image of the Uzun Çarşı in 1930 with the minaret of the Myda Mosque in the background, (Güngördü, 2016)

The distinctive qualities of a place are inherently shaped by its natural surroundings, which serve as the foundation of its character (Al Sabouni, 2021). The Uzun Çarşı, situated along the Asi River, reflects this principle, as its location aligns the historical pattern of city development in areas with favorable natural conditions, agricultural resources, and access to both land and sea transportation (Güngördü, 2016; Üçeçam Karagel & Karagel, 2014). Uzun Çarşı, as a place, exhibits distinct favorable conditions that have remained visible over the years (Figure 08). Its strategic location along the Asi River has historically supported trade and urban continuity, shaping the market's spatial organization and economic role (Figure 09, Figure 11). The urban developments that took place during the Seleucid Empire can not be seen separately with the shifting of the commercial route to the Eastern Mediterranean by the Greeks who started supplying grains and other agricultural products (Figure 09). Enclosed within architectural land, the traces of the Uzun Çarşı were located right next to agricultural land (Figure 10). The Uzun Çarşı remained enclosed by agricultural land despite the urban expansion during the French Mandate period. While new developments extended the city's

boundaries, the market preserved its historical relationship with the surrounding rural landscape (Figure 05 and Figure 11).


Figure 09, more than 100.000 people were living within the old part of Antakya in grey, Downey (1961), edited by author.

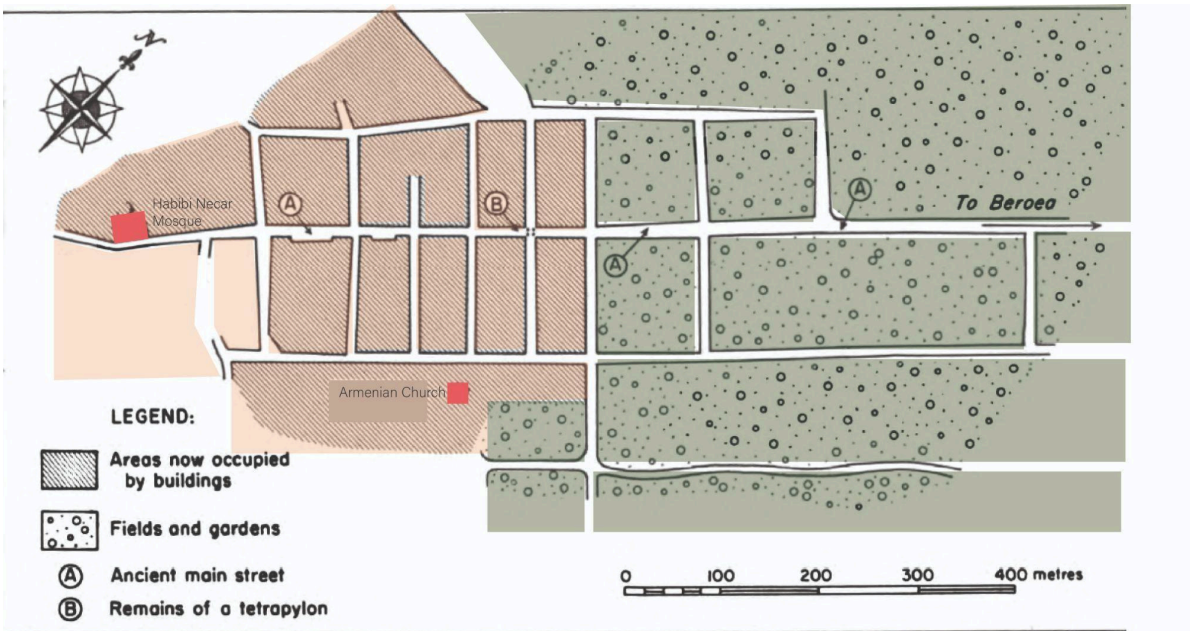



Figure 10, Buildings within the historical part of Antakya, including the Uzun Çarşı, was enclosed by agricultural land next to it in green. Downey (1961) edited by author

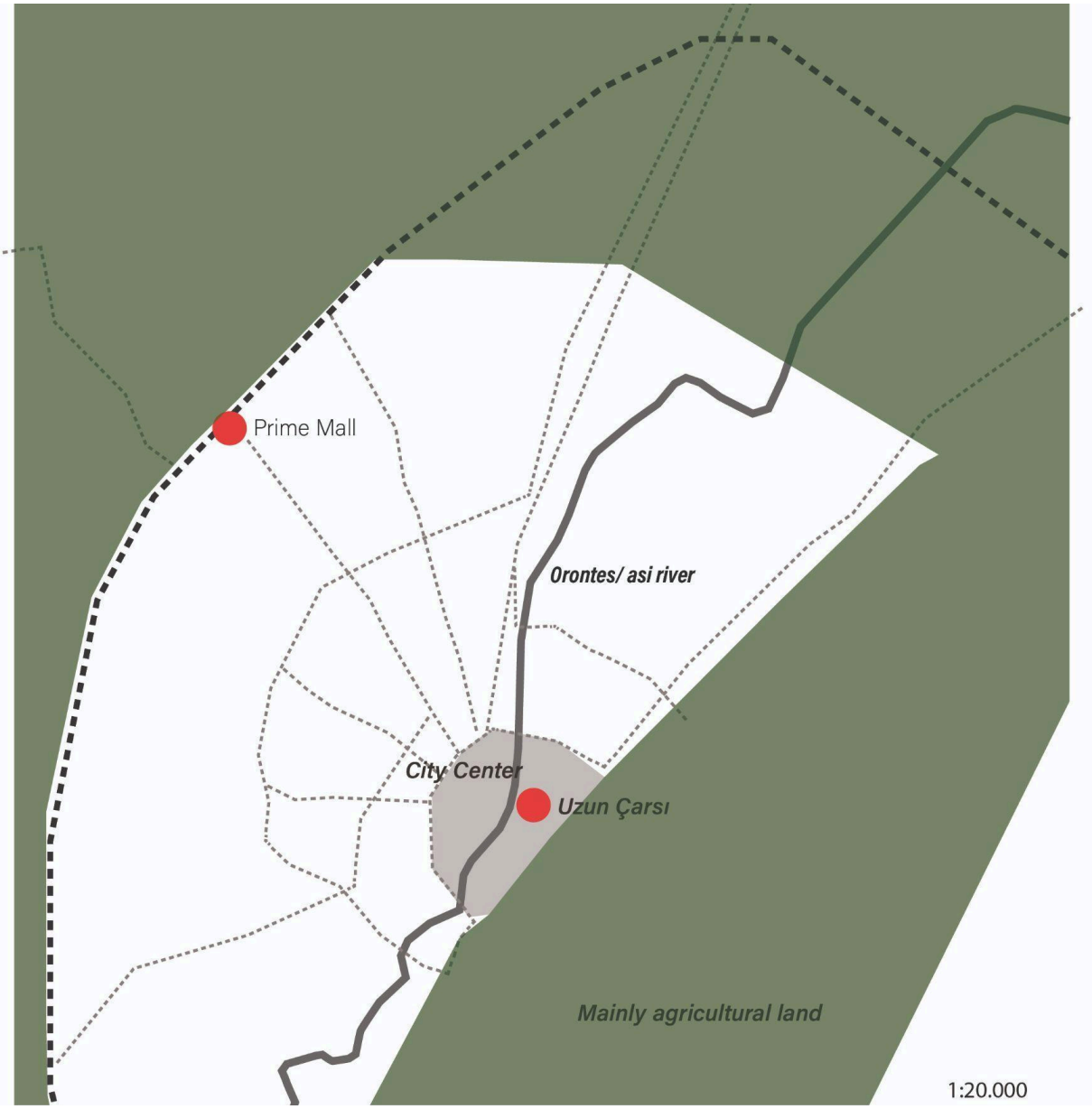



Figure 11, The Uzun Çarşı still enclosed by agricultural land despite the French Mandate expansion. This highlights its enduring role as a trade hub, maintaining its historical connection to rural production. Edited by author.

Uzun Çarşı is situated within the historical ‘urban texture’ of Antakya, between Kemal Paşa and Kurtuluş Avenues and Inönü, see figure XX and is located within the protected historical commercial center. Before 2014, only a few residential buildings were located south of Uzun Çarşı’s borders (Figure 12). However, field observations revealed that, in addition to the destruction of shops, Uzun Çarşı also suffered a significant loss of life, as many shop owners resided in apartments above their stores, which collapsed during the disaster.

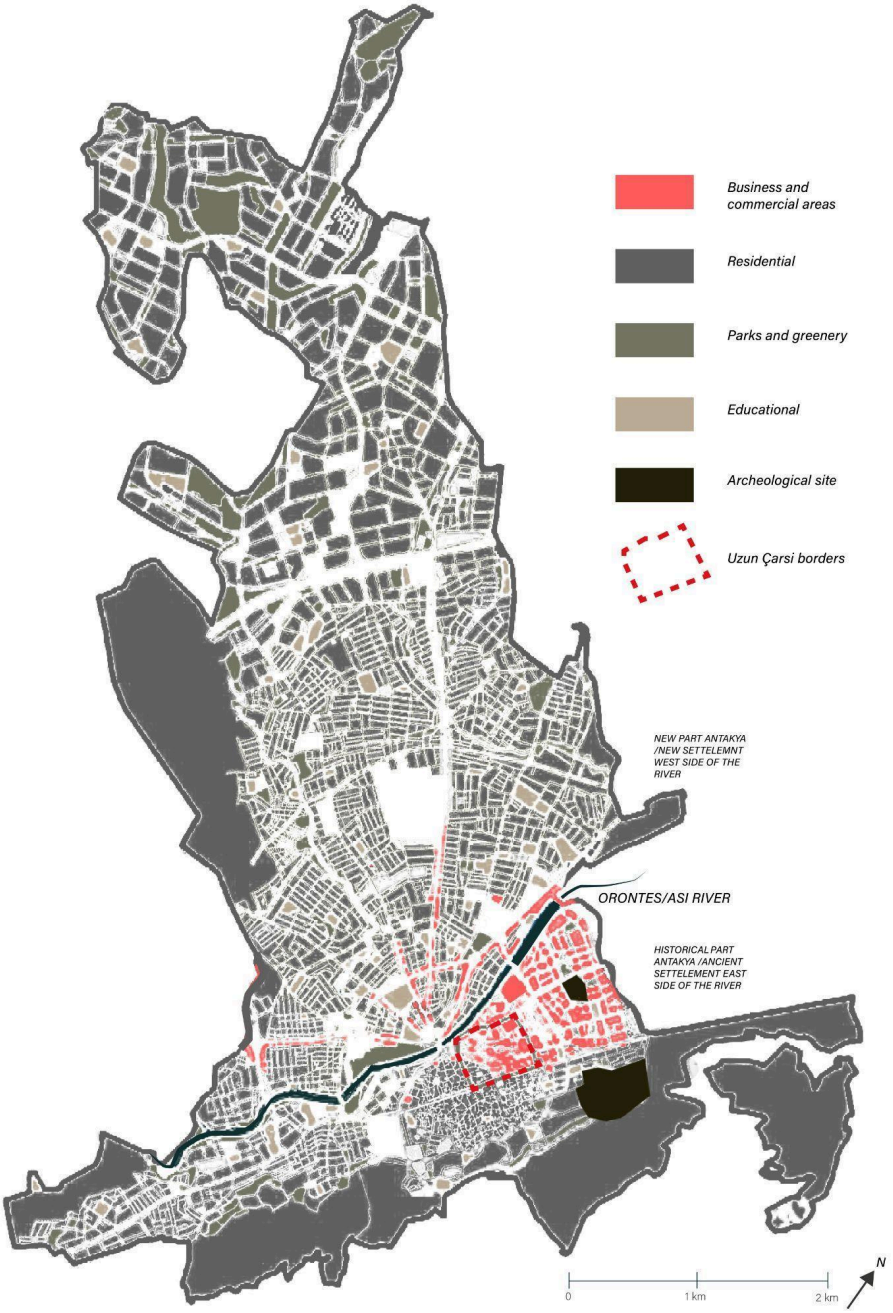



Figure 12, shows the land use and program of Antakya before 2014. Edited by Author.

Uzun Çarşı has 5 five main entrances and in addition there are many other narrow street entrances (Figure 13 and figure 14).


Figure 13, One of the main entrances at the Kurtulus Caddesi. Edited by author.

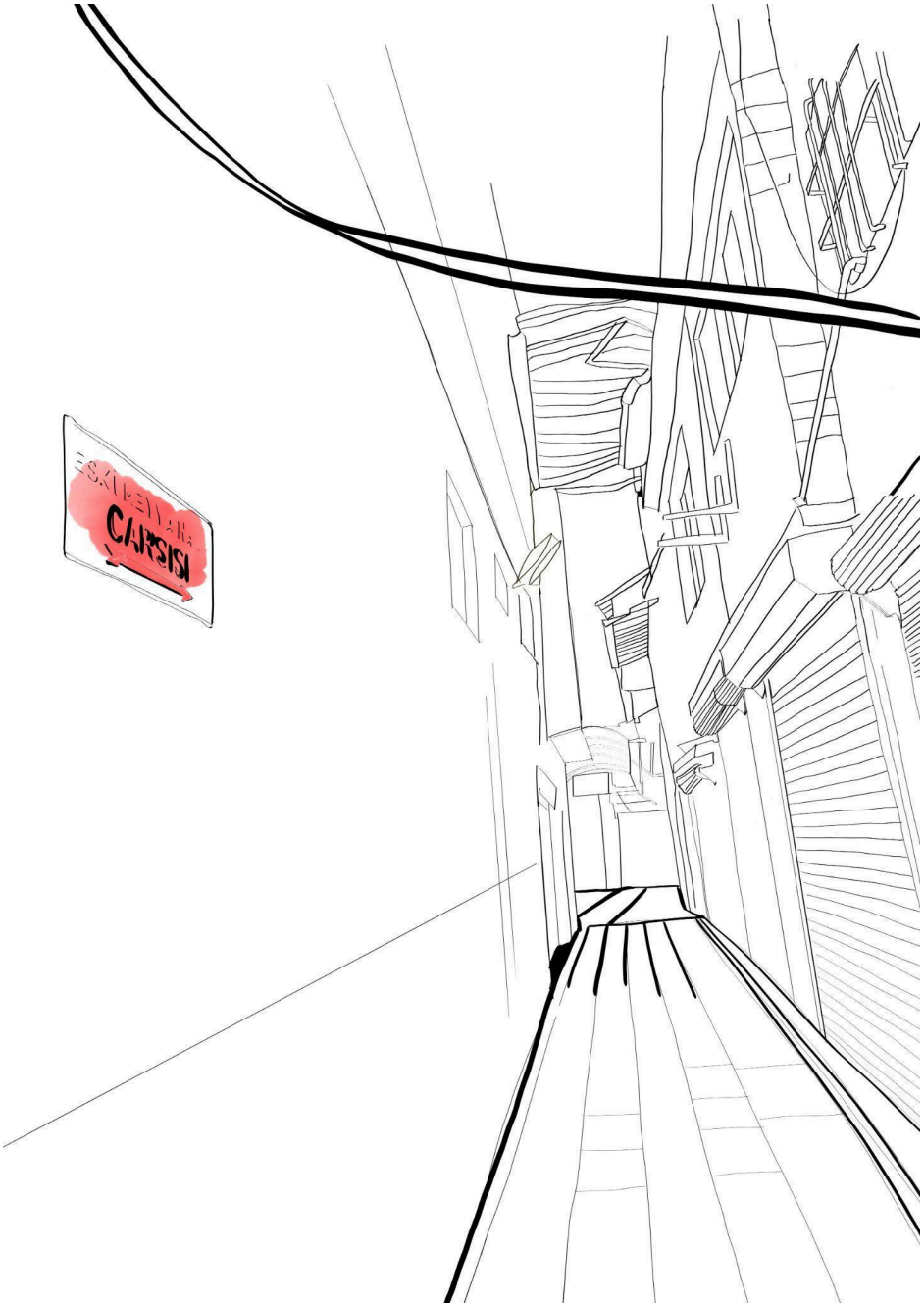



Figure 14, shows other narrow streets leading towards the Uzun Çarşı. Edited by author.

Historically it is still used because of the presence of long-standing commercial networks, public institutions, and local marketplaces where villagers sell their produce, as well as a rural hub that offers essential services to the surrounding population (Üçeçam Karagel & Karagel, 2014). Almost all places of the Uzun Çarşı are also covered to protect it from the sun and provide more comfort. Uzun Çarşı is visited by all social classes, it is well known not only by the people within Antakya but also outside of the city and even further from Syria and Lebanon. A survey from Üçeçam Karagel & Karagel, 2014, showed that 64% of the visitors are mainly women and the main reason they would visit was because of the variety in products. The three most important products visitors would come to the market are: shoes, jewellery and spices (Güngördü, 2016). The significance of spices is particularly noteworthy, as they establish a strong connection between local culture and heritage. Antakya's cuisine, recognized as UNESCO heritage, heavily relies on these spices, most of which are cultivated

in the agricultural lands surrounding the city. Additionally, 80% of Antakya's population works in agriculture.

The Uzun Çarşı is more than just a marketplace; it is a dynamic space shaped by historical trade networks, cultural exchange, and daily social interactions. To fully grasp its role in Antakya's urban fabric, we must first define what a bazaar is and how it functions within the city.

## 4.2 Defining the Bazaar

The Uzun Çarşı can be defined as a Bazaar, but what does the concept of a *Bazaar* represent? There are several interpretations of the bazaar's spatial complexity which are often described within a concept that is generalized, conventional and with a typical imagination of the orient (Sanaan Bensi, 2018).

For Negar Sanaan Bensi (2018):

> Bazaar is an intermediate. Its territoriality is an encounter and assemblage of extensive territoriality of movement and intensive territoriality of inhabitation. Its territory is not fixed, rather it is in a process of becoming and transformation.

Beyond its territoriality, in that sense, the bazaar could be read through what Ingold (2011) calls a "meshwork". Which are spaces that are formed by traces and nodes of the people (Ingold, 2011).

The difference between a closed shopping center and a closed bazaar is that shopping centers are often placed on highways and just outside of the city center. For example, Prime mall in Antakya is located next to the highway surrounding Antakya (Figure 15). Conversely, a closed bazaar is integrated within its urban fabric, expanding on the traces, nodes of its inhabitant and creates continuity within urban routes by shaping connections between different places (Taghizadehvahed, 2015). Furthermore, Taghizadehvahed (2015) emphasizes that the structures that embody the bazaars create a network of enclosed passageways that interweave commercial, social, and cultural functions, offering a sense of place continuity, both functionally and spatially, through their connection to the life of the city.

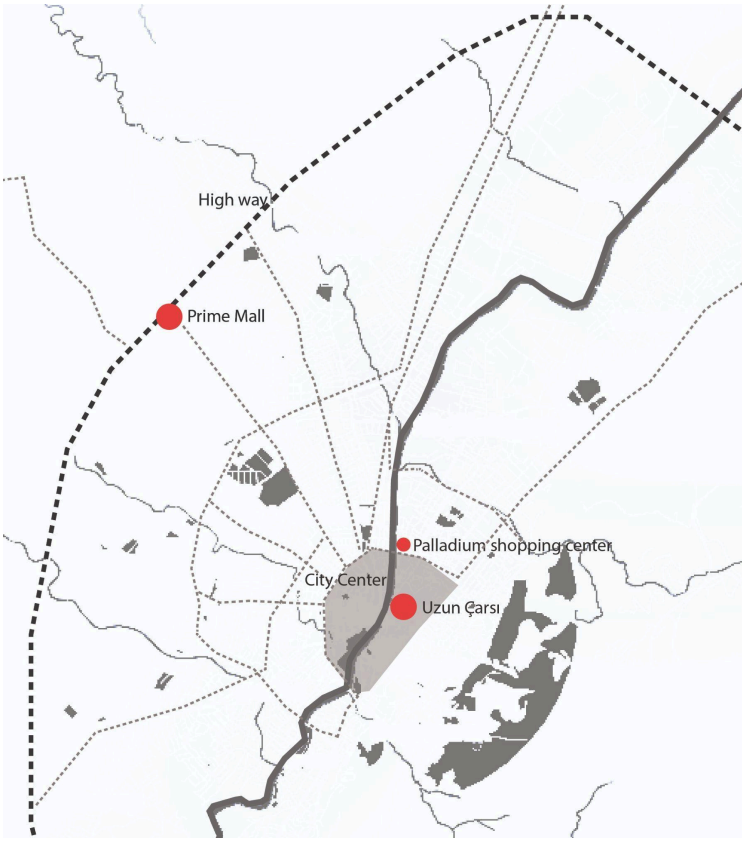



Figure 15, map of  Antakya 1:20.000, by author.

Similarly, Güngördü (2016) frames traditional bazaars as vital hubs of urban identity. These spaces embody a dynamic socio-cultural and economic environment, shaped through history by local traditions, trades, and interactions. Their spatial configuration supports a complex network of crafts, shops, and communal institutions such as mosques, inns, and schools, which collectively sustain the city's cultural memory and daily life. The bazaar can be seen as a system that consists of different realms. It facilitates different movements but also pauses, it shrinks and it expands, by day and by night. It consists of street vendors and permanent shops. Street vendors sell their goods, such as small apples, during the day. He will walk through the narrow street of the the Uzun Çarşı, passing  permanent shops, while selling his produce (Figure 16).


Figure 16. Food vendor selling little apples during the day. By author, September 2024.

Another important proposition by Sanaan Bensi (2018), is where she states that, “the bazaar is a place of exchange, production and at the same time a space of distribution in its most comprehensive sense. …not only material goods, but also the immaterial aspect, that of knowledge, [micro-structure] power, and social relations. … the space for movement and place for production, exchange [of material and non-material things] combines ‘coming together’ and ‘being together’.”

Drawing from the definitions provided by Sanaan Bensi, Taghizadehvahed, and Güngördü, the concept of a bazaar emerges as a multifaceted urban node where spatial, social, and cultural elements converge. Unlike modern shopping centers, bazaars are deeply rooted in their local context, fostering reciprocal relationships with both the urban environment and the community. They shape and are shaped by the dynamics of daily life, embodying a continuity of identity, movement, and place that transcends mere economic exchange.

As Sanaan Bensi (2018) positions, bazaars function as dynamic networks, formed by evolving spatial and social interactions. This concept is visible in the Uzun Çarşı, where streets and pathways adapted to the post-disaster context, reconnecting people and trades despite the destruction. The bazaar's continued operation through these adaptations demonstrates resilience as a process of material and social reconstruction.

## 4.2 Fieldwork: Tracing Uzun Çarşı

Scholar Suzanne Ewing (p.5, 2011) argues that the field “can be understood as a condition operating between, as well as a condition of, design intention and resolution, architectural idea and built construction.” For Ewing (p.10, 2011) conducting fieldwork not only deepens the disciplinary knowledge, but also unearths the “narratives of relationships of field and site to design work in contemporary architecture practice.” The ethnographic research methods, such as personal stories and observations, casual interactions, and unstructured chats, therefore could be understood as another input for architectural design that could bridge the gap between the cultural context.

With this information in mind, this study benefits greatly from fieldwork in Antakya. Between 2023 and 2024, I have visited Antakya four times (July and August 2023, November 2023, September 2024) to document, observe, and analyze the current situation in the city center. During these unstructured visits, along my walks I photographed the Uzun Çarşı, interviewed shop owners, street vendors and visitors and interviewed people within a community center. These walks would either start where the car could be parked the closest too. During the first visit this was only a 15 min walking distance from the bazaar away, as there were too many collapsed buildings. The second and the third time during the visit, the car could be parked close to the Asi river and the bridge. A new parking lot was created on top of a destroyed building(Figure 17). Having visited this bazaar many times before, I found myself disoriented on each return due to the extent of the destruction.By asking people around they would lead me towards the accessible roads towards the entrance. During all the visits the weather was sunny, however during the first three visits, the air was so polluted and dusty, a face mask was necessary. However, within the bazaar, and walking through the narrow street, the pollution and dust in the air would be less. In the weeks following the earthquake, Uzun Çarşı exhibited a slow yet persistent return to activity. While many shops remained closed due to structural damage (Figure 17 and figure 18), a number of vendors resumed their trade, displaying goods outside their damaged storefronts (Figure 19). This pattern aligns with Taghizadehvahed’s (2015) study on bazaars as adaptive urban nodes, where commercial activities often reclaim space in fragmented urban conditions. Observing the market’s transformation during my field visits, it became evident that small-scale vendors and spice merchants were among the first to re-establish presence, reinforcing Uzun Çarşı’s economic and social centrality (Figure 16 and figure 19 till 23).

Figure 17, walking towards one of the entrances of the Uzun Çarsi, By author,  july 2023.


Figure 18, taken within the Uzun Çarsi where shops remained closed but shop owners and visitors reclaimed the streets. By author in September 2024.


Figure 19, taken within the Uzun Çarsi in august 2023, where shop owner re-open their shops next to destroyed shops. Photograph taken by author, August 2023.

As the market adapted to its post-disaster reality, new informal spaces of exchange emerged, mirroring what Sanaan Bensi (2018) terms the "process of becoming and transformation", where the space continually reconfigures itself to support exchange and habitation. Within these images the role of materiality in resilience is also visible. Referring back to Ingold (2007) and Gordillo (2014), the shattered shop in contrast with the functioning shoe vendors highlights how rubble becomes both a marker of loss and a medium of resilience (Figure 19). Because the Uzun Çarşı has a protected status, the rubbles had not been cleaned yet during the visits, and because of this, rather than being erased, during this moment it underscores both spatial continuity and collective memory.

Figure 20, the cornershop marked as 4 in figure 28. By author, November 2023


Figure 21, Corner marked as 1 in figure 28, The explained that the most sold spices he has are cummin, black pepper and pulbiber. He buys his products from villages but also from a wholesaler. Most of the products from the wholesale are coming from the surrounding area of

Antakya. However the rice is coming from Iran, and he also has some spices imported from India and Italy. By author, November 2023


Figure 22, marked as 2 on the map in figure 28, the shops next to this spice shops where covered with golfplates because of their destruction. By author, November 2023

Figure 23, marked as 3 on figure 28, spice shop where most of the produce are presented outside and around the shop. By author, November 2023

The small shops within the bazaar serve as gathering point where market regulars, locals and familiar faces meet to talk (Figure 24 and figure 30). While passing by, I was invited inside for a cup of tea, an informal yet significant moment that highlighted the market's enduring social fabric. The shop owner's immediate familiarity—asking if I was from Antakya and whose daughter I was—reflects the deep-rooted connections that structure everyday interactions in the market (Figure 24). As we sat, a woman joined the conversation, sharing stories of the many shops and people lost in the earthquake. Soon, another woman arrived, and the discussion shifted towards their personal traumas and shared grief. This organic interaction aligns with Sanaan Bensi's (2018) assertion that bazaars function as spaces of dynamic social exchange, constantly evolving through ongoing interactions.

Figure 24, I joined the conversation, got a cup of tea and sat on one of the plastic chairs. Everytime I started talking to one person, one or more people would join the conversation. September 2024. By author.

Within Uzun Çarşı, monuments and historical structures played a key role in shaping recovery. According to Mačkić (2016, p.40), monuments in destroyed cities serve as anchors of historical continuity, enabling communities to reinterpret their past while adapting to new realities. The Yeni Camii entrance (Figure 25) exemplifies this phenomenon, where despite visible damage, the site remained an active part of the bazaar's daily functions, with shop owners hanging products near its gate.

These architectural remnants function not as passive ruins but as living elements of the urban fabric, reinforcing Güngördü's (2016) argument that bazaars sustain identity through their historical and economic roles. The Çınar Altı square, situated beneath a historic plane tree (Figure 26 entrance, Figure 27), continued to serve as a popular gathering spot. Under the shadow of the big plane tree, kunefe and coffee or tea is ordered and people are resting from their visit to the bazaar. It illustrates how spatial memory and resilience intertwine in the reactivation of everyday life.


Figure 25, Entrance of the Yeni Camii. If looked behind the door the mosque is destroyed, the entrance stays and the shop vendor the door to present their goods. By author, November 2023.


figure 26, The only small entrance towards the square with the plane tree. By author, September 2024.


Figure 27, Çınar alti, under the plane tree square, is well known among the visitors as a place to rest and eat kunefe. By author, September 2024.

Uzun Çarşı's integration with key routes and landmarks such as the yeni Camii highlights its enduring significance. Compared to a map from 1930, 2014, and now, the uzun Çarsi functionality stayed (Figure 28 and figure 29). Before my third visit to the market I had a conversation with Zehra Güngördü, who explained to me about her dissertation and the importance of the spice shops. I printed a map of the city and marked the shops that were spice shops in 1930 and 2015, according to her research. Figure 25 shows the outcome of this walk. The dots within the blocks are the shops that were in use as spiceshops in 1930 and in the block that are filled in are still in use compared to 2015 and now.

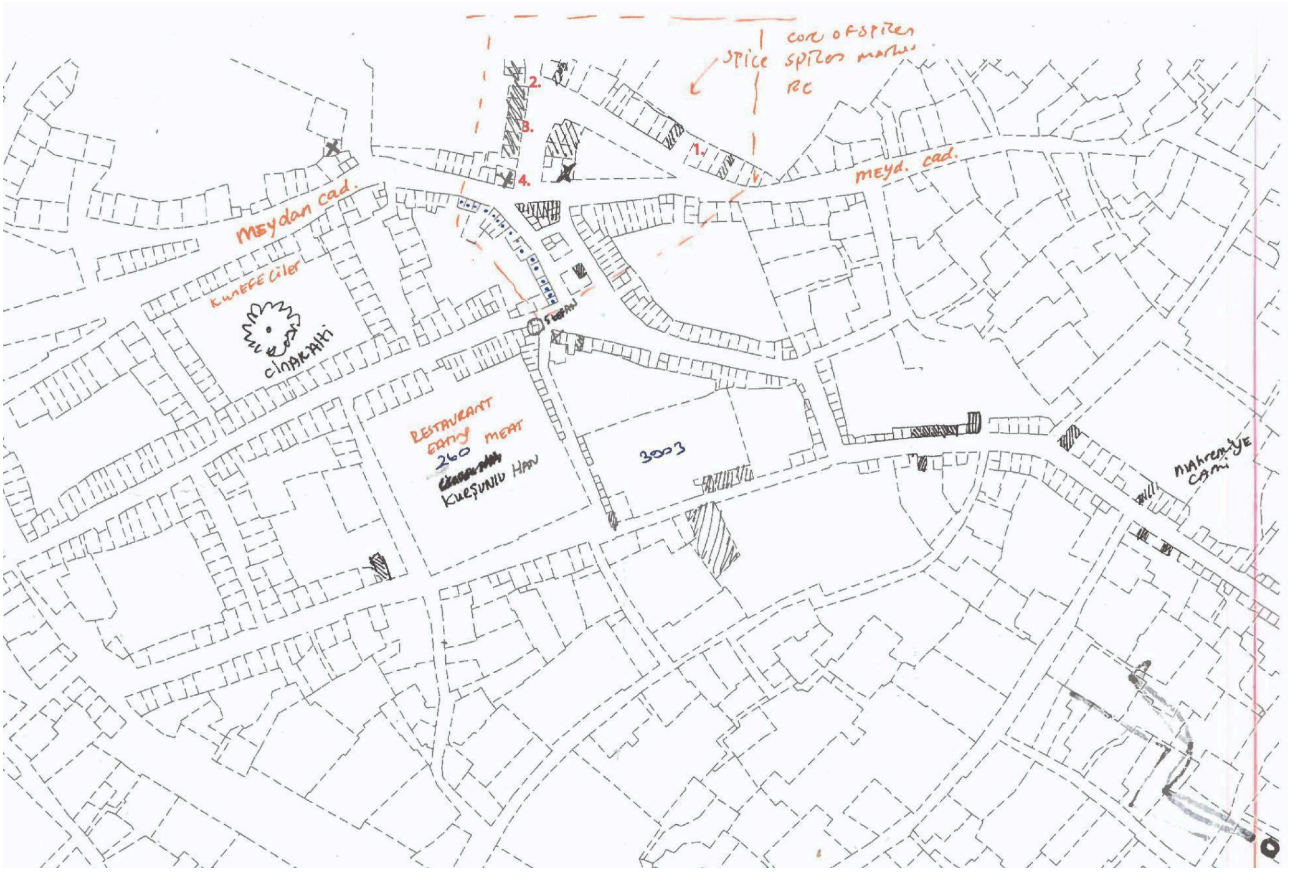



Figure 28. During the walk through the Uzun Çarşı, the amount of open spice shops was tracked within this map. By author, November 2023.


Figure 29, The old map of antakya (1930) is overlaid with in yellow the historical buildings compared to the current map, in red where the spice market is, which used to be a wheat market. By author, 2024

Figure 30, Visitors and vendors animate the space through reconnections, movement, and economic transactions, while in the background the destruction of the bazaar is visible. By author, July 2023.

In September 2024 I visited a community center in a container park close to the Uzun Çarşı. I shared a coffee with a group of women—a psychologist, several community members, and a teacher. Our conversation spanned everything that had happened during and after the earthquake and the reasons they now gathered at this center. Primarily visited by women, the center offered various workshops, from knitting to painting, providing a space for creativity and healing. During these sessions, the psychologist would join the table, using these moments to talk with the women about their traumas.

The teacher, also a survivor of the earthquake, shared her story. On the night of the disaster, her house near Uzun Çarşı completely collapsed on her. She was found five days later—an experience she described with quiet strength, grateful that at least her son had survived. Despite everything, she spoke with great pride about continuing her work as an art teacher, now teaching women to crochet. When I asked if she had sought help for her own trauma, she responded, "Helping others helps me. Even when I don't always feel good, seeing that I can support other women, even just a little, makes me feel so much better." The other woman nodded in agreement, adding that they, too, struggled with finding a balance—they couldn't bear staying at home, yet being outside felt equally unsettling. Beyond the destruction and loss, they hadn't expected to feel so deeply affected by something intangible: the loss of control over their own lives. Upon asking if they would still visit the market, everybody again nodded. One community member added that it felt good that at least the interactions there didn't have changed.

The stories shared at the community center revealed a deep longing for spaces that foster both connection and continuity. Despite the trauma they carried, the women emphasized how important it was to reclaim aspects of their daily lives, even in small ways. For many, returning to the bazaar symbolized a step toward normalcy, a familiar setting where the rhythms of exchange, conversation, and routine persisted.

Within the broader context of resilience discussed earlier, the Uzun Çarşı illustrates how materiality and community interplay to sustain recovery. Its reconstruction, driven by local actors and their attachment to place, mirrors the theories of adaptive resilience outlined in this study. The bazaar embodies both the sensory and symbolic elements of recovery, where ruins and materials serve as connective tissue between the past and potential futures. Ultimately, the Uzun Çarşı is a testament to Antakya's capacity to absorb disruption, adapt, and emerge with renewed strength, embodying resilience as both a material and communal process.

Ultimately, Uzun Çarşı's resilience is not just material but deeply social—rooted in daily interactions, adaptive spatial practices, and historical continuity. As Figure 30 highlights, the bazaar remains a vital space of exchange, recovery, and collective identity, demonstrating that even in moments of rupture, its foundational role in Antakya's urban life endures.

# 5. Spice 4 life

Building on both theoretical insights and field observations, this section explores how design can actively enhance and capitalize on the resilient practices observed in Uzun Çarşı. By outlining key design goals, the aim is to propose strategies that not only support the market's recovery but also strengthen its long-term adaptability, social cohesion, and cultural continuity, ensuring that resilience is embedded within the architectural and urban framework of the spice market. The decision to design a spice market in the heart of Uzun Çarşı is deeply rooted in the historical, economic, and cultural significance of spices in Antakya. Spices have long been a defining feature of the city's identity, woven into its culinary traditions, trade networks, and social life. As a UNESCO-recognized cuisine hub, Antakya's food culture relies heavily on locally sourced spices, many of which are cultivated in the surrounding agricultural lands. Re-establishing a spice market not only restores lost commerce but also reinstates a vital connection between the city's urban core and its rural producers.

Beyond its economic function, the spice market within the Uzun Çarsı acts as a symbol of resilience and continuity. Spices themselves are powerful carriers of memory, evoking personal and collective histories through scent, taste, and ritual. The market, therefore, becomes more than a commercial space—it is a repository of cultural heritage and a site for collective healing. Its reconstruction using earthquake remnants reinforces this theme, embedding memory into its physical structure.

The design of the spice market unfolds in the immediate aftermath of the 2023 earthquake—a critical period when the city lingers between trauma and rebuilding. In my proposal, I explore how immediate architectural interventions, led by local community members, shop owners, and design professionals, can reinforce the market as an anchor of resilience by enhancing its social, economic, and cultural functions.

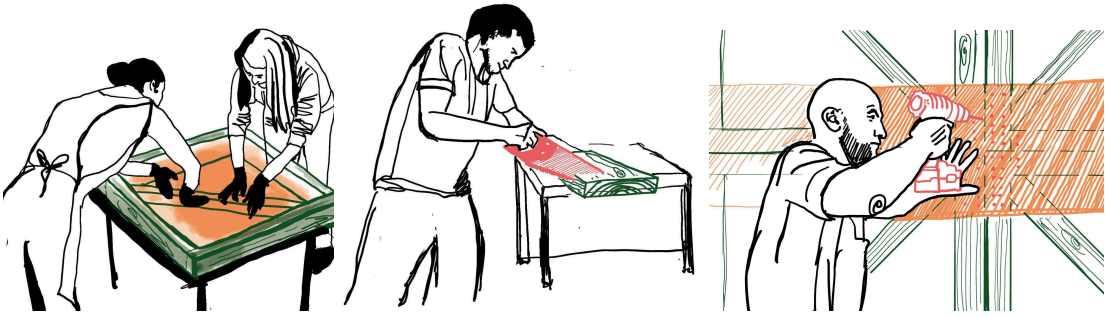
The bazaars' re-establishment aligns with traditional post-disaster recovery patterns, where bazaars and public spaces play an important role in reactivating urban life. Historically, bazaars have been among the first institutions to re-emerge after destruction, driven by local initiative rather than top-down planning. By positioning the spice market as one of the earliest rebuilding efforts, the design capitalizes on this organic process, ensuring that the community is at the forefront of its own recovery.

The key design goals  for the spice market envisions a *participatory approach with a community driven construction,* allowing market users to construct and personalize their own shops, reinforcing agency and collective ownership. It uses materiality as a memory anchor, includes spaces for coming together, and the last goal is that it should have enough flexible spatial adaptation.

## 5.1 Community-Driven Construction

Building on Lahoud's (2010) definition of resilience as cultivated through social engagement, this design proposal aims to animate the community by fostering a participatory reconstruction process. Rather than imposing fixed solutions, the spice market's design encourages shop owners, artisans, and residents to actively shape their environment—through adaptable spaces, shared decision-making, and interventions that reinforce both economic and social recovery.

To ensure both structural stability and accessibility for community-driven construction, the market will be built using a wooden frame system that combines traditional Turkish and Japanese seismic-resistant techniques (Hirakawa et al., 2022; Aktas et al., 2014). This hybrid construction method allows for flexibility while providing enhanced earthquake resistance, ensuring that future disruptions do not lead to total collapse, and at the same time it gives the community the learning tool that when a shaking happens again they would know how to rebuild their own structures again. The frame is designed for ease of assembly, enabling community members to take an active role in the reconstruction of their own shops.



A key component of this approach is skill-sharing. Selected shop owners will first receive hands-on training in constructing these wooden frames, learning the joinery system and the structural logic behind it. They will then pass this knowledge to their peers, creating a cascading learning process within the community. In organized workshops, these trained shop owners will guide others in assembling their market stalls, filling the frames with hempcrete—a sustainable, lightweight, and insulating material that further enhances seismic resistance. The step-by-step plan of this community building is explained in the *'community step-by-step rebuilding plan'* document. it will address the steps but its not enough…

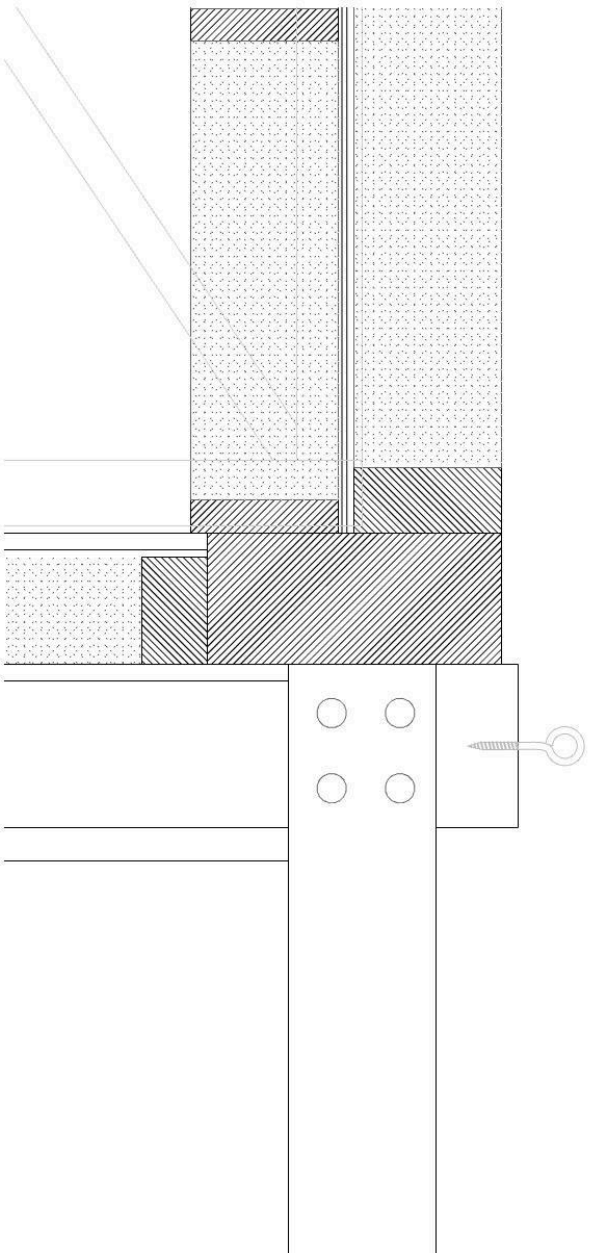
By engaging directly in the building process, shop owners develop a deeper connection to their spaces, reinforcing not only physical durability but also a strong sense of agency and belonging. This participatory method aligns with traditional bazaar practices, where market spaces evolve through incremental modifications by their users rather than through rigid master planning. Ultimately, this approach ensures that the reconstructed spice market is not only structurally sound but also socially embedded within the community, fostering a self-sustaining cycle of knowledge and skill transfer.

## 5.2 Flexible Spatial Adaptation

Traditional bazaars, including Uzun Çarşı, have long thrived on their adaptability. Consistent with Sanaan Bensi's (2018) interpretation of bazaars as dynamic and evolving networks, the design emphasizes flexibility. Market users can appropriate and adapt their stalls to meet changing needs, promoting a sense of belonging and long-term viability. A key feature of this design is the multi-functional use of structural elements. Columns are designed to serve beyond their primary load-bearing function—they incorporate built-in hooks and attachments where shop owners can hang and display their goods, maximizing vertical and horizontal

space and maintaining the vibrant, layered aesthetic typical of traditional bazaars. Similarly, the facade itself is designed as an extension of the shop, providing a flexible surface where merchants can showcase their products, enhancing both visibility and interaction with passersby.

To ensure adaptability to changing weather conditions, circular hooks fittings on the façade allow shop owners to easily attach and remove fabric coverings. These provide adjustable shading, protecting both vendors and goods from the sun while maintaining an open and breathable environment.



Inside, the spice market stalls are designed with practical storage solutions in mind. A dedicated storage area is integrated into each shop, allowing vendors to safely keep their spice stock while maintaining an organized display. This storage space is designed to be

thermally insulated, ensuring a cooler and more stable environment that helps preserve the quality of the spices, preventing deterioration from heat exposure.

By incorporating these flexible and responsive design features, the spice market enables vendors to shape their environment according to their needs, reinforcing the adaptability and resilience of the space. This ensures that the bazaar continues to function not just as a commercial hub, but as a dynamic and evolving part of the community's daily life.


## 5.3 Materiality as a Memory Anchor

Drawing on Ingold's (2007, 2013) and Gordillo's (2014) perspectives, materiality is understood as an active participant in shaping human experience, rather than a passive byproduct of disaster. In Antakya's Uzun Çarşı, the very stones and fragments left in the wake of the earthquake serve as tangible links between past and future, embedding the trauma of destruction into the process of renewal.

In the reconstruction of the spice market, these materials will be repurposed to create structural and symbolic elements that honor collective memory. Salvaged stones from collapsed buildings can be integrated into thresholds, seating elements, and display surfaces, reinforcing continuity between the market's pre-disaster identity and its revived form. This approach moves beyond aesthetic nostalgia; it acknowledges the emotional

weight of materials, allowing the community to shape its own recovery by physically rebuilding with the remnants of its past.

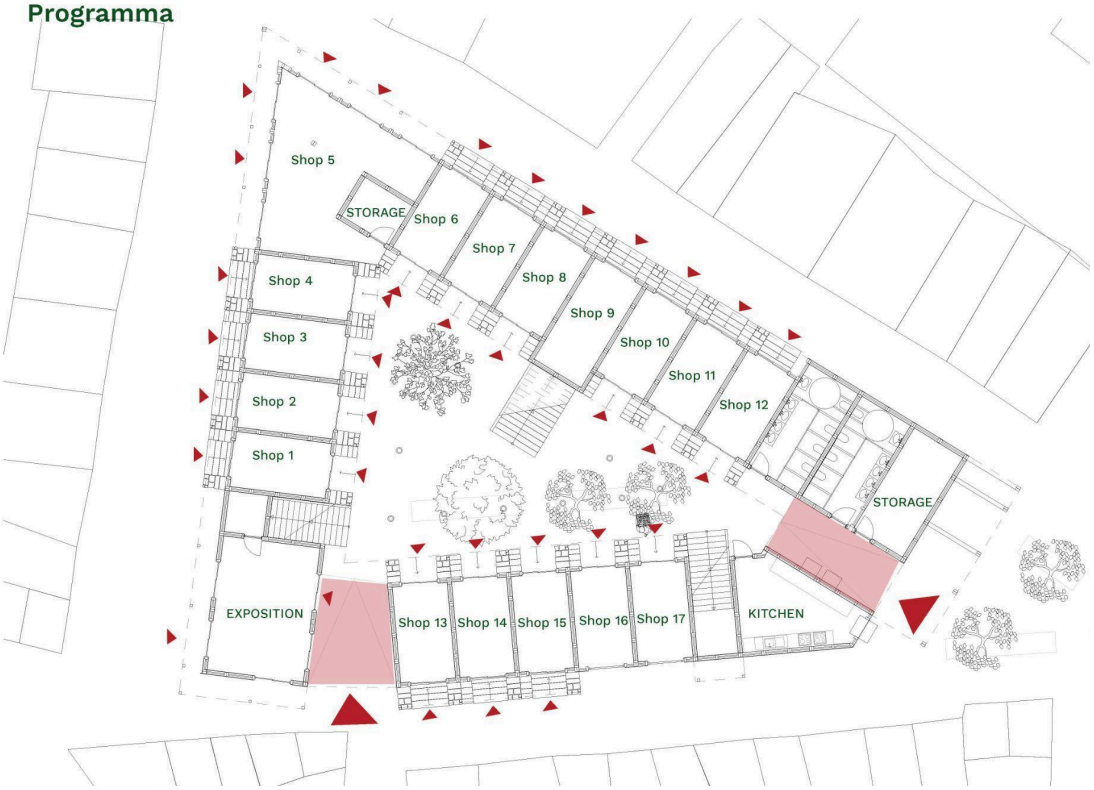

## 5.4 A Space for Coming Together: Hayat

Beyond its economic function, Uzun Çarşı has always been a social nucleus—a place where people gather, converse, and reaffirm communal ties. The concept of "Hayat" (meaning "courtyard" or "life" in Turkish) is central to traditional Anatolian spatial organization, particularly in domestic architecture. Turkish architect Sedad Hakkı Eldem (1945) identified the "sofa", when its closed, and “hayat” when its open, as a transitional, multipurpose space connecting various parts of the house; similarly, the reconstructed spice market will include a

communal "hayat" area to facilitate interaction and shared experiences. Just as observed in the streets and shops of the bazaar—where people naturally claimed spaces to sit, rest, and talk with one another about their experiences and traumas—this hayat will provide a dedicated, protective space for people to gather under the shade of a tree, within the very core of the market. Here, individuals can pause from daily commerce, sit together, and engage in meaningful conversations, much like they already do informally in the marketplace. However, by providing an intentional and welcoming environment, this space will reinforce the importance of collective healing and community resilience.

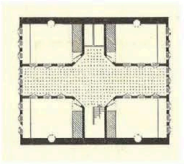
Shaded seating, a central tree, and a small water element—such as a şadırvan (a traditional fountain used for both refreshment and ritual cleansing)—will encourage visitors to slow down, reflect, and reconnect. By creating this protected social sphere, the market continues its legacy as not just a commercial center but also as a site of emotional recovery and solidarity, where people rebuild their sense of belonging alongside their livelihoods.

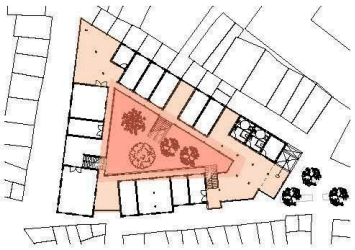
## Programma

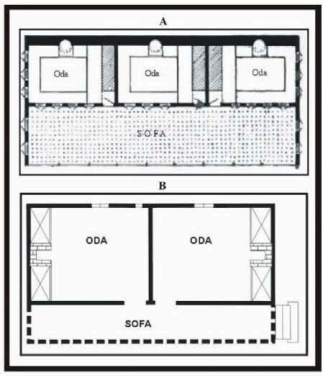



## First floor 1:100

## Sense of Identity








# 7. Conclusion

This research set out to examine how architectural interventions can foster resilience in post-disaster contexts, particularly in Antakya's Uzun Çarşı. The findings demonstrate that resilience is not an abstract concept but a tangible, lived process—one that manifests through materiality, community participation, and spatial adaptation. The market's spontaneous reactivation, driven by local actors rather than centralized planning, underscores how resilience is embedded in both people and place.

The research has shown that materiality acts as a bridge between past destruction and future recovery. Ruins and remnants are not merely debris to be discarded but integral elements of collective memory and continuity. By incorporating earthquake remnants into the reconstruction of the spice market, the design proposal acknowledges this layered history, reinforcing Ingold's (2007) and Gordillo's (2014) argument that materials are not passive but active agents in shaping recovery.

Similarly, the interplay between community and resilience is evident in Uzun Çarşı's revival. The informal networks of shop owners, street vendors, artisans, and visitors exemplify how urban life reorganizes itself from within, rather than being dictated from above. This aligns with Taghizadehvahed's (2015) assertion that bazaars are adaptive urban nodes, constantly reshaping themselves in response to disruption. By proposing a community-driven construction process, where locals take an active role in rebuilding their shops, this research emphasizes that architectural interventions should not impose solutions but facilitate existing practices of resilience.

Beyond physical reconstruction, Uzun Çarşı also embodies the cognitive and emotional dimensions of resilience. As Lahoud (2010) suggests, resilience is not just about rebuilding structures but about reclaiming a sense of place. The proposed Hayat space within the spice market reflects this, offering a communal gathering area where people can reconnect, share experiences, and reaffirm their collective identity.

Ultimately, Uzun Çarşı's resilience is a continuum, not a singular event. Its recovery is not about returning to a pre-earthquake state but about evolving with the lessons of the past. This research reinforces the idea that architecture, when rooted in social and material realities, becomes a catalyst for recovery—one that respects history, fosters agency, and anticipates future uncertainties.

# 8. References


Ainuddin, S., & Routray, J. K. (2012). *Community resilience framework for an earthquake prone area in Baluchistan.* International Journal of Disaster Risk Reduction, 2, 25-36. https://doi.org/10.1016/j.ijdrr.2012.07.003

Aktaş, Y. D., Akyüz, U., Türer, A., Erdil, B., & Güçhan, N. Ş. (2014). Seismic resistance evaluation of traditional Ottoman timber-frame hımış houses: Frame loadings and material tests. *Earthquake Spectra*, *30*(4), 1711-1732.

al-Sabouni, M. (2021). *Building for hope: Towards an architecture of belonging*. Thames & Hudson.

Altunsu, E., Güneş, O., Öztürk, S., Sorosh, S., Sarı, A., & Beeson, S. T. (2024). Investigating the structural damage in Hatay province after Kahramanmaraş-Türkiye earthquake sequences. *Engineering Failure Analysis*, *157*, 107857.

Ammoun, C. (2022, February 26). *Not resilience, subsidence!* L'Orient Today. https://today.lorientlejour.com/article/1291894/not-resilience-subsidence.html

Ashdown, N. (2024, March 25). *Antakyans fear their city's soul will not rise from the rubble*. New Lines Magazine . https://newlinesmag.com/reportage/antakyans-fear-their-citys-soul-will-not-rise-from-the-rubble/

Barad, K. (2003). *Posthumanist performativity: Toward an understanding of how matter comes to matter*. Signs: Journal of Women in Culture and Society, 28 (3), 801-831.

Dovey, K., & King, R. (2011). "Forms of Informality: Morphology and Visibility of Informal Settlements." Built Environment, 37(1), 11-29. doi:10.2148/benv.37.1.11.

Ekmekci, B. (2024, May 12). *Antakya is ours, as it was before: Mapping community memories in a destroyed city.* Ajam Media Collective. https://ajammc.com/2024/05/12/antakya-mapping-community-memories/

Erel, T. L., & Adatepe, F. (2007). *Traces of historical earthquakes in the ancient city life at the Mediterranean region.* Journal of Black Sea/Mediterranean Environment, 13(3), 241–252. Retrieved from https://blackmeditjournal.org/wp-content/uploads/4-Traces-of-Historical-earthquakess.pdf

Ertaş, D., & Ertaş, D. (2024, 15 november). Göç eden Hataylı sayısı 165 bini geçti - Antakya Gazetesi. *Antakya Gazetesi - Toplumcu Halk Gazetesi - Güncel Hatay Haberleri*. https://antakyagazetesi.com/goc-eden-hatayli-sayisi-165-bini-gecti/

Esteban, T. A. O. (2021). *Collective engagement: From disaster-prone to disaster-resilient communities* [Doctoral thesis, Erasmus University Rotterdam]. Erasmus University Rotterdam Repository.

European Space Agency. (2023, February). *Destruction in Turkish city of Antakya* [Photograph]. https://www.esa.int/ESA_Multimedia/Images/2023/02/Destruction_in_Turkish_city_of_Antakya

Gordillo, G. R. (2014). *Rubble: The afterlife of destruction.* Duke University Press.

Görür, N. (2023, February 15). *Bu depremin gelmekte olduğunu söyleye söyleye dilimizde tüy bitti*. Independent Türkçe .

https://www.indyturk.com/node/607651/haber/profes%C3%B6r-g%C3%B6r%C3%BCr-bu-depremin-gelmekte-oldu%C4%9Funu-s%C3%B6yleye-s%C3%B6yleye-dilimizde-t%C3%BCy-bitti

Güngördü, Z. (2015). Kent kimliğinin değişim sürecini geleneksel çarşılar üzerinden düşünmek: Antakya-Uzun Çarşı örneği. *Sketch: Journal of City and Regional Planning*, *2*(01), 1-23.

Heath-Kelly, C. (2016). *Death and security: Memory and mortality at the bombsite.* Death and Security, 1-232.

Highfield, A. (2023, October 31). *Foster + Partners to masterplan Turkey earthquake rebuild.* The Architects' Journal . https://www.architectsjournal.co.uk/news/foster-partners-to-masterplan-turkey-earthquake-rebuild

Hirakawa, H., Uematsu, T., Fukushima, A., Adachi, Y., & Kikuta, K. (2022). Seismic Retrofit Technique Using Plywood and Common Nails for Connections of Low-Rise Timber Frame Construction. *Buildings*, *12*(7), 1029.

Ingold, T. (2007). Materials against materiality. *Archaeological dialogues*, *14*(1), 1-16.

Ingold, T. (2013). *Making: anthropology, archaeology, art and architecture.* New York and London: Routledge.

Khaznadar, B. M. A., & Baper, S. Y. (2023). Sustainable continuity of cultural heritage: An approach for studying architectural identity using typo-morphology analysis and perception survey. *Sustainability*, 15 (11), 9050.

Lahoud, A. (2010). Post-Traumatic Urbanism. *Architectural Design*, *5*(80), 14-23.

Meerow, S., Newell, J. P., & Stults, M. (2016). "Defining urban resilience: A review." Landscape and Urban Planning, 147, 38–49. doi:10.1016/j.landurbplan.2015.11.011.

MIC-HUB. (n.d.). *Masterplan for the reconstruction of the earthquake-affected area of Hatay in Turkey.* [Webpage]. https://www.mic-hub.com/masterplan-for-the-reconstruction-of-the-earthquake-affected-area-of-hatay-in-turkey/#&gid=1&pid=3

Nassar, A. (2020). *Where the dust settles: fieldwork, subjectivity and materiality in Cairo.* In Identity, Agency and Fieldwork Methodologies in Risky Environments (pp. 108-124). Routledge.

Özden, A.T. (2007). *Constituting a sustainable community after disasters: The role of architecture.* Alam Bina.

Özşahin, E., & Değerliyurt, M. (2013). Modeling of seismic hazard risk analysis in Antakya (Hatay, South Turkey) by using GIS. *International Journal of Innovative Environmental Studies Research*, 1(3), 31-54.

Pye, David. 1968. *The Nature and Art of Workmanship.* Cambridge: Cambridge University Press; reprinted by Cambium Press, 2002.

The Rockefeller Foundation, & Arup International Development. (2015). *City resilience framework.* The Rockefeller Foundation.

https://www.rockefellerfoundation.org/wp-content/uploads/City-Resilience-Framework-2015.pdf\

Rifaioğlu, M. N. (2014). The historic urban core of Antakya under the influence of the French mandate, and Turkish republican urban conservation and development activities. Megaron, 9(4), 271.

Sanaan Bensi, N. (2018). *An Inhabitable Infrastructure: Rethinking the architecture of the bazaar.* [Dissertation, TU Delft]. Delft University of Technology. https://doi.org/10.4233/uuid:f60f9df5-1869-4898-b9ac-b3254cf7f182

Scott, J. C. (1998). *Seeing like a state: How certain schemes to improve the human condition have failed*. Yale University Press.

Silver, A., & Grek-Martin, J. (2015). "Now we understand what community really means": Reconceptualizing the role of sense of place in the disaster recovery process. *Journal of Environmental Psychology*, *42*, 32-41.

Stoler, A. L.. (2013). *Imperial debris: On ruins and ruination*. Duke University Press.

Tarı, U., Tüysüz, O., Can Genç, Ş., İmren, C., Blackwell, B. A., Lom, N., ... & Beyhan, M. (2013). The geology and morphology of the Antakya Graben between the Amik Triple Junction and the Cyprus Arc. *Geodinamica Acta*, *26*(1-2), 27-55.

Taghizadehvahed, N. (2015). *A comparative study of covered shopping spaces: Covered bazaars, arcades, shopping malls* (Master's thesis, Middle East Technical University (Turkey)).

Toufic, J. (2003). *Vampires: An uneasy essay on the undead in films*. Post Apollo Press.

Trévelo, P. A., Malaud, D., Viger-Kohler, A., Enon, D., Bullier, A., Ragoucy, O., & Mercuriali, M. (2020). *The earth is architecture.* Spector Books.

Truc, G. (2018). *Shell shocked: The social response to terrorist attacks.* John Wiley & Sons.

Turkey: National disaster response plan. (2014, July 4). Prevention Web. https://www.preventionweb.net/publication/turkey-national-disaster-response-plan#:~:text=The%20Turkey%20National%20Disaster%20Response,and%20after%20the%20disaster%20and

Üçeçam Karagel, D., & Karagel, H. (2014). Analysis of a Historical commercial centre in terms of marketing geography: Uzun Çarşı/the Long Bazaar (Antakya/Turkey). *European Journal of Research on Education, 2, 166-184.*

Uludağ, A. (2024, 6 februari). TÜİK'e göre deprem bölgesinde 308 bin kişi göç etti. *dw.com*. https://www.dw.com/tr/t%C3%BCi%CC%87ke-g%C3%B6re-deprem-b%C3%B6lgesinde-308-bin-ki%C5%9Fi-g%C3%B6%C3%A7-etti/a-68185119

UNESCO. (n.d.). *Hatay.* UNESCO Creative Cities Network. https://www.unesco.org/en/creative-cities/hatay

Uras, S. E. (2024, April 3). *Field study on the container cities built in Iskenderun after the 6th February earthquake and the current situation*[Presentation]. Iskenderun Chamber of Architects, Iskenderun, Turkey.

Üçeçam Karagel, D., & Karagel, H. (2014). Analysis of a Historical commercial centre in terms of marketing geography: Uzun Çarşı/the Long Bazaar (Antakya/Turkey). *European Journal of Research on Education, 2, 166-184.*

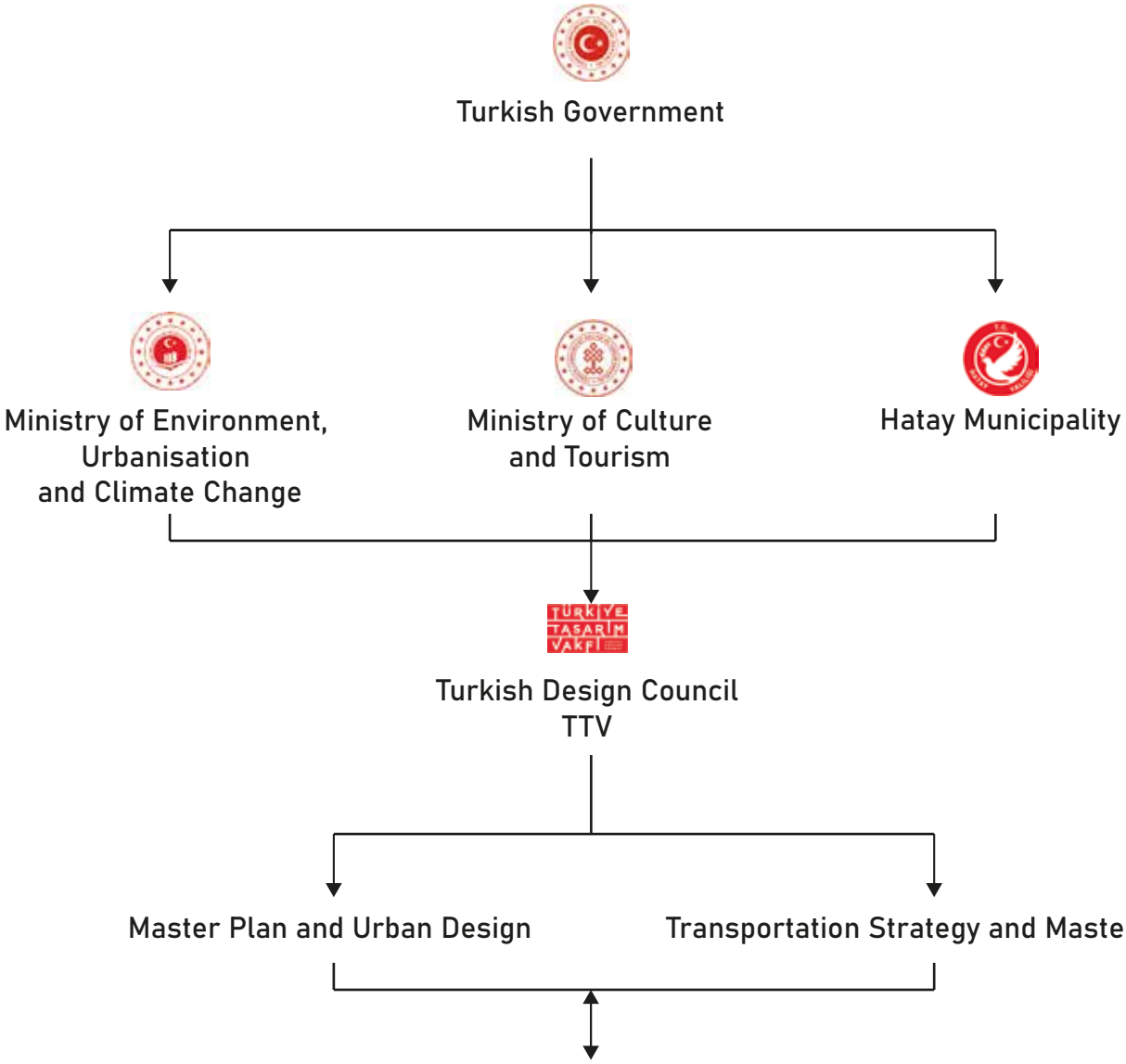
Vale, Lawrence J. (2014). *The Politics of Resilient Cities: Whose Resilience and Whose City?* Building Research & Information 42 (2): 191–201. doi:10.1080/09613218.2014.850602.

Vale, L. J., & Campanella, T. J. (2005). The Resilient City: How Modern Cities Recover from Disaster. Oxford University Press.

World Monuments Fund. (2024, February 6). *Antakya in the aftermath: In the wake of devastating earthquakes,* Türkiye's 'City of Peace' rebuilds. https://www.wmf.org/blog/antakya-aftermath-wake-devastating-earthquakes-t%C3%BCrkiye%E2%80%99s-%E2%80%9Ccity-peace%E2%80%9D-rebuilds

Walker, B., & Salt, D. (2012). Resilience Practice: Building Capacity to Absorb Disturbance and Maintain Function. Island Press.

Appendix 1.


Turkish Government
Ministry of Environment, Urbanisation and Climate Change
Ministry of Culture and Tourism
Hatay Municipality
TÜRKİYE TASARIM VAKFI
Turkish Design Council
TTV
Master Plan and Urban Design
Transportation Strategy and Masterplan
Architectural Design and Project
Landscape Design and Project
Landscape Design and Project
Static and Soil Mechanics and Planning
Electrical planning
Lighting Consultancy
Sustainable Energy
Ground Survey an Mapping Survices
Design Communcal Areas Products
Mechanical planning
Fire Consultancy
Academic Consultancy