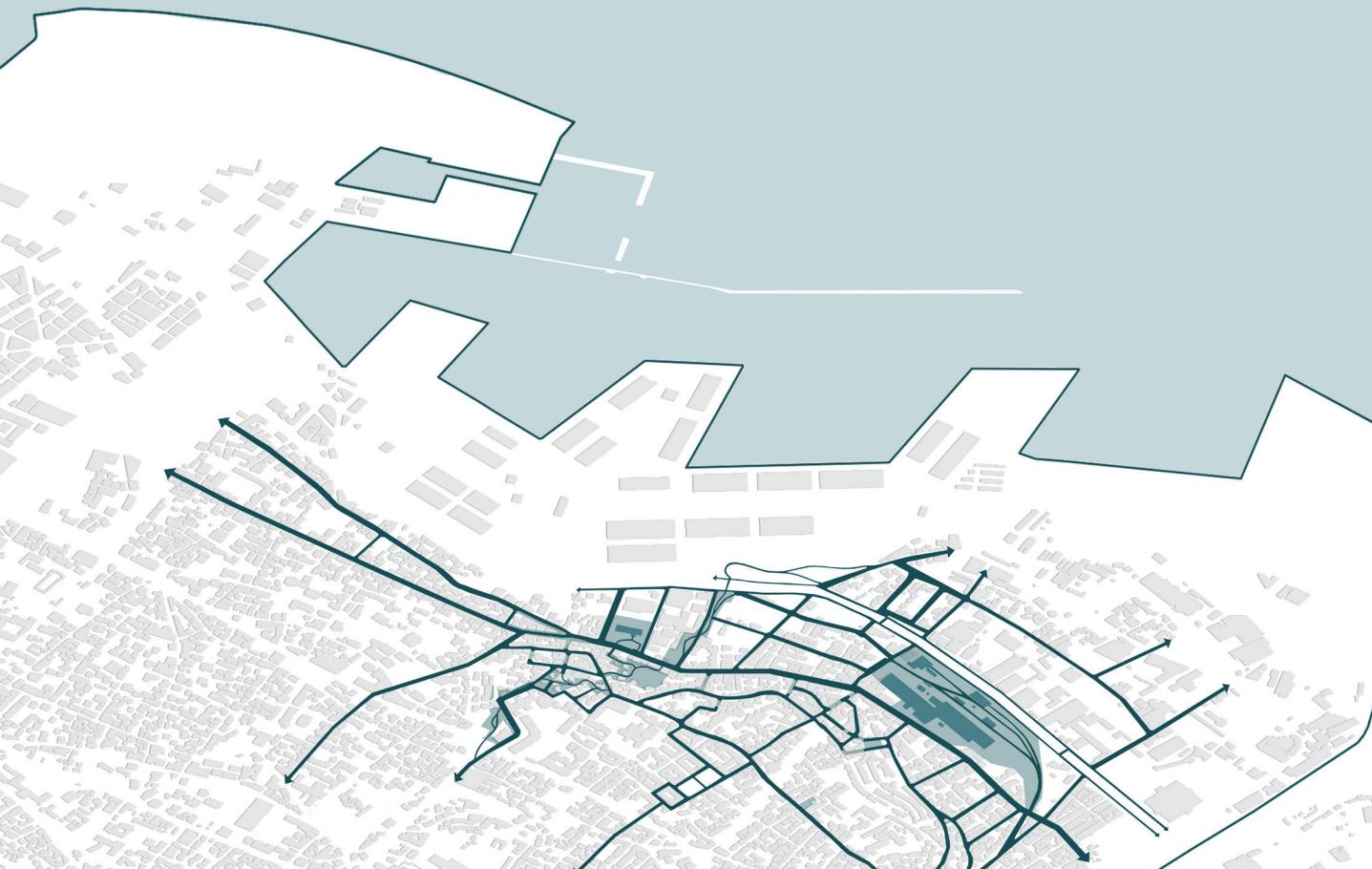


Reconnecting The Urban Fabric

Revitalization Of Mar Mikhael

Sarah Mahfouz





POLITECNICO DI TORINO

Department of Architecture and Design

Master Degree in Architecture Construction City

A.A. 2024/2025

Masters Degree Thesis

Reconnecting The Urban Fabric

Revitalization Of Mar Mikhael

Supervisor:
Davide Rolfo

Candidate :
Sarah Mahfouz

I would like to express my deepest gratitude to all those who supported, guided, and inspired me throughout the journey of this thesis.

To Prof. Rolfo, whose dedication, knowledge, and patience have shaped my academic path. Your guidance not only strengthened my research but also enriched my understanding of the city, its complexities and possibilities. I am especially thankful for your continuous feedback, encouragement, and trust in my work.

To my family, whose unconditional love, sacrifices, and belief in me made every step possible. Your strength has always been my foundation, and your support has carried me through the most challenging moments.

To my friend, thank you for standing by me, motivating me, and bringing light during difficult times. Your presence, kindness, and encouragement have been essential throughout this journey.

To my country, Lebanon, especially Beirut, the city that has shaped my identity, memories, and the spirit of this thesis. Beirut's resilience, beauty, and contradictions continue to inspire me. This work is a tribute to its people, its stories, and its endless ability to rise again.

May this research be a small contribution to imagine more inclusive, and more collective urban future for the city we love.

*To all of you, thank you.
Sarah Mahfouz*

This thesis examines the urban revitalisation of Mar Mikhael, a historically complex and spatially fragmented district of Beirut, as a framework for social reconciliation and socio-spatial healing. Mar Mikhael is a place where the city's fabric has been physically and socially destroyed.

Positioned between the memories of Lebanon's civil war, the 2020 Beirut Port explosion, and the present socio-economic crisis. The project addresses these fractures by proposing a network of connected public spaces, pedestrian corridors, and ecological paths that reattach the neighbourhood to its surroundings and to the daily lives of its residents.

The strategy focusses on continuity by reconnecting streets, open spaces, and neighbourhoods that were once cut off from each other by infrastructure, private property lines, and violence in the past. The initiative aims to activate cultural identity, promote intergenerational contact, and foster a sense of shared civic belonging by maintaining existing layers of memory and facilitating new kinds of encounter.

From this point of view, the city is not just a background; it is a living structure of relationships, a connective tissue where healing is spatial, social, and continual. Reconnecting the urban fabric is a method to repair both the place and the community, helping Beirut to remember, coexist, and re-develop from the inside out.

Introduction	11
Chapter 1 Urban Community Dynamics.....	15
1.1 The Cityscape of Everyday Life.....	16
1.2 Space is Shaped by Community.....	16
1.3 Shared Spaces for Community Interaction.....	16
1.4 The city is a very personal and emotional experience.....	16
Chapter 2 Beirut: Continuities and Contrasts in an Evolving City.....	19
2.1 Locating Beirut Geography.....	20
2.2 Tracing Beirut History.....	22
2.3 Urban Transformations	28
2.4 The Decline of Green and Public Spaces.....	32
2.5 The August 4, 2020 Explosion and Its Aftermath.....	34
2.6 The Social Fragmentation and Spatial Inequality.....	37
2.6.1 Infrastructure as Division: The Case of the Charles Helou Highway.....	37
2.6.2 Contrasting Urban Realities: Portraits from Three Neighborhoods.....	39
Chapter 3 The Neighborhood of Mar Mikhael.....	45
3.1 Historical Background	46
3.2 Urban Context.....	50
3.3 Urban Mobility and Fragmentation.....	54
3.3.1 Road Network	54
3.3.2 Pedestrian Flows and Informal Mobility Practices.....	56
3.3.3 Stairways.....	59
3.3.4 Graffiti as an urban expression	65
3.3.5 The Fouad Boutros Highway Proposal : Barrier or Bridge?.....	67
3.4 Urban Fabric Composition.....	71
3.4.1 Building Ages.....	71
3.4.2 Height Distribution	77
3.4.3 Zoning Maps	80
3.5 Social and Spatial Transformations.....	82
3.5.1 Layered Functions	82
3.5.2 Stakeholders and Ownership Dynamics.....	85
3.5.3 Neighborhood Gentrification.....	88
3.5.4 Mar Mikhael After Dark: Between Attraction and Tension.....	90
3.6 Green Space Dynamics in Mar Mikhael	93
3.6.1 Major Green Areas.....	93
3.6.2 Minor Green Spots.....	95
Chapter 4 The Train Station as an Urban Landmark.....	99
4.1 Site Context and Accessibility.....	101
4.2 Environmental and Ground Conditions on Site.....	102
4.2.1 Acoustic Environment	102
4.2.2 Softscape.....	104
4.2.3 Hardscape.....	104
4.3 Architectural Layers	106
Chapter 5 Reconnecting the Urban Fabric: Proposed Interventions.....	119
5.1 Design Principles.....	120
5.2 Potential Areas for Urban Interventions.....	120
5.3 Inspiration Projects	126
5.4 Urban proposed strategy.....	129
5.4.1 Urban Guidelines.....	129
5.4.2 Urban Interventions	130
Conclusion	179
List of Figures	180
References	184

Cities are more than just only buildings but are places where people live, work, and share values with each other. But in many modern cities, more fragmentation, privatization, and unstable socio-economic conditions have made the places where people live together less stable. It's hard to find or get to public places, neighborhoods are cut off from each other, and people lose the feeling of being part of the city every day.

Beirut has always been a perfect example of these conditions. The city shows signs of civil unrest, economic instability, and the catastrophic effects of the port explosion in 2020. There are clear signs of each of these events on the city's land affecting citizen behaviors and way of life. It's hard for neighborhoods to connect with each other because of physical barriers, old buildings that are no longer in use, and uneven growth patterns. Beirut is still a very lively city because of its strong communities, cultural history, and sense of identity as a city. The aim isn't only to rebuild but also to help people reconnect and make the city a good place for community life to thrive and prosper.

This project is all about Mar Mikhael, the neighborhood that used to be connected to the railway network. The old train station used to be a busy place where people could meet and interact, but now it is mostly empty and serves more as a void than a link. Because it is strategically located between different neighborhoods, districts, and communities, it has the potential to change how people move, interact, and identify themselves in the city as a whole.

This thesis, titled "Reconnecting the Urban Fabric: Revitalization of Mar Mikhael Train Station, a Path Toward Re-imagining Urban Collectivity," is situated within the broader discourse of Collective Architecture in Urban Spaces. It doesn't just look at the building itself; it also looks at how public and communal spaces can help people connect with each other, live together, and feel like they belong in Beirut. The central problematic guiding this research asks:

How can the reconnection of collective urban spaces help reweave Beirut's fragmented urban fabric and restore a shared sense of public life among its inhabitants?

To tackle this inquiry, the research employs a multi-scalar and interdisciplinary approach with historical and archival examination which shows the development of the city and the railway's influence in shaping Mar Mikhael.

In this research urban mapping and spatial analysis is being utilized to learn about how people walk, what stops them, and how land is used. Moreover, field observations show how people are now using space and how social dynamics are changing. Comparative case studies from other cities that are broken up or have been through similar constraint can assist us figure out how to rejoin cities. Lastly, a design-based exploratory method is used to demonstrate spatial ideas and solutions , with design seen as a way to think about and judge new ways for people to live together in cities.

The thesis aims to illustrate how the revitalization and reconnection of crucial urban locations, such as the Mar Mikhael train station, can facilitate the restoration of public life, enhance social cohesion, and aid in rethinking Beirut as a collectively experienced and inhabited city.



CHAPTER 1

Urban Community Dynamics

- 1.1 The Cityscape of Everyday Life
- 1.2 Space is Shaped by Community
- 1.3 Shared Spaces for Community Interaction
- 1.4 The city is a very personal and emotional experience

A metropolis goes beyond just buildings, streets, and frameworks. It comprises people who live together, come together, move through spaces, and interact with each other. The community in the city is vibrant and constantly changing, never a fixed presence. It is a vibrant organism that transforms continuously through shared experiences, interactions, and the way people engage with their surroundings. Understanding the creation of this community illuminates the intricacies of city life.

1.1 The Cityscape of Everyday Life

Ash Amin and Nigel Thrift contend that the city should be perceived as an intricate network of everyday activities and relationships, rather than just a physical space (Amin & Thrift, 2002). Daily encounters, bumping into someone on the street, taking the bus, savoring a moment on a communal bench, foster a sense of connection to a larger community. These daily occurrences slowly shape how people feel connected to each other. The community emerges naturally, shaped by the pulse of daily existence rather than imposed by an external force.

1.2 Space is Shaped by Community

Henri Lefebvre a famous urban theorist, emphasizes that urban space is imbued with inherent biases and is anything but neutral, it is shaped by the interplay of social interactions, economic dynamics, and cultural principles (Lefebvre, 1974). Henry introduces an intriguing idea:

the entitlement to the city, highlighting that inhabitants should possess the authority to shape the spaces they live in, instead of just existing within them (Lefebvre, 1968). It is known that when individuals take on shared responsibility and actively shape their environment, the community becomes stronger and more resilient.

1.3 Shared Spaces for Community Interaction

Public spaces, such as streets, squares, parks, and sidewalks, act as the stages where people meet new faces. Albert Levy depicts public space as a vibrant arena of shared existence, where people from various backgrounds come together in harmony (Levy, 2015). This collective experience allows individuals to welcome and live harmoniously with a variety of perspectives. Public space is essential in forming a collective identity, as it welcomes diversity, encourages shared experiences, and sometimes ignites debates. This is the space where the idea of "us" in the city environment comes to life.

1.4 The city is a very personal and emotional experience

To truly comprehend what community is, you need to think about how individuals feel about the places they reside in. Lise Bourdeau-Le Page stresses that cityscapes are more than just the buildings that are there, but also include the sensations and meanings they bring (Bourdeau-Le Page, 2011).

People connect with their surroundings through movement and routines, memories and images, spaces, soundscapes, and everyday habits.

These experiences help people feel like they belong, which is important for communal living. The community is not only organized; it also has a lot of meaning. The community that is built into the city is lively and connected. It comes from the heart of ordinary life. It grows out of the basic ways that people engage with each other, which are shaped by their motions, meetings, and the places they share. When people who live in a city actively work to make it better and when public spaces stimulate socialization and connections, the cityscape becomes a shared space. Amin and Thrift stress how the things we do every day shape our shared experiences. Conversely, Lefebvre emphasizes that space arises from social processes and stresses the importance of individuals having the agency to influence their environment. Levy also stresses the value of common spaces that bring people together, while Bourdeau-Le Page talks about how emotions, memories, and rituals may help people feel like they are part of a community. These points of view all show that the cityscape is a common space that is shaped by the people who live there.



Fig.1 The image captures Jami'a in Dar El Mreisse, illustrating the coastal neighborhood's everyday urban life and architectural character. (@mozinati, 2020)

CHAPTER 2

Beirut: Continuities and Contrasts in an Evolving City

2.1 Locating Beirut Geography

2.2 Tracing Beirut History

2.3 Urban Transformations

2.4 The Decline of Green and Public Spaces

2.5 The August 4, 2020 Explosion and Its Aftermath

2.6 The Social Fragmentation and Spatial Inequality

2.6.1 Infrastructure as Division: The Case of the Charles Helou Highway

2.6.2 Contrasting Urban Realities: Portraits from Three Neighborhoods

2.1 Locating Beirut Geography

To comprehend the dynamics of the chosen intervention site, it is essential to contextualize Beirut within its overarching national and regional geography, as well as its internal urban framework. Lebanon is a country that sits at the crossroads of Europe, Asia, and Africa on the eastern coast of the Mediterranean Sea. Its location in the Middle East has long made it culturally rich and strategically important, but it has also made it vulnerable to cycles of political war and instability. Lebanon is bordered by Syria to the north and east, Israel to the south, and the Mediterranean Sea to the west.



Fig.2 Lebanon's Location in the Middle East.

Its landscape is made up of a narrow coastal plain, high mountain ranges, and heavily populated urban areas.

On a national level, Beirut is on the central-western coast. It is the capital and biggest city, and it is also the main political, economic, and cultural center of the country. Beirut is not only an important part of Lebanon's urban network, but it is also a symbolic place that has been shaped by its long history, diverse population, and efforts to rebuild after the war.



Fig.3 Aerial View of Downtown Beirut
(amazingviewsoflebanon, 2022)

VILAYET BEIRUT

18th Century : Rise of Beirut as a Trade Center

As an Ottoman wilaya, Beirut experienced significant growth, driven by the expansion of its commercial port and increased trade with European nations.

1800

19th Century: Growth & Modernization

Beirut modernized its governance, infrastructure, and education, emerging as a key economic hub with strong European, especially French, ties, surpassing Sidon and Tripoli.



1891

The Ottoman Empire granted a concession to a French company to construct a railway linking Beirut to Damascus.

1900

Early 20th centuries

Beirut port extension works which attracts investors.



1903

The Beirut-Damascus railway was extended to the Gare du Port, marking its inauguration.



WWI



1914-1918

Marked the end of the Ottoman Empire, leading to the fall of Ottoman rule in Beirut and the beginning of the French Mandate.

COLONIAL PERIOD

1920

Beirut becomes the capital of "le Grand Liban".

Start of Bus Transportation in Beirut: The first organized bus lines began operating between Beirut, Tripoli, and Haifa during the French Mandate period, replacing many horse-drawn trams.



1940

WWII



1939-1945

During World War II, engineers from the Commonwealth nations completed the Haifa-Beirut-Tripoli railway line and General Catroux proclaims Lebanon's independence in 1943.

However, the outbreak of the Arab-Israeli conflict in 1948 led to the discontinuation of the railway connection, which now terminates at Naqoura, cutting off Lebanon from Palestine and Egypt.

The construction of Beirut International Airport: Planning began around 1945, construction followed in 1947.

CIVIL WAR IN LEBANON

1975-1990

The Lebanese civil war divided Beirut into two: East (Christian) and West (Muslim) Beirut by the Green Line.

A massive destruction of buildings and displacement of people.

The railway network collapses, and the station falls into disrepair and obscurity.



1960

BEIRUT "GOLDEN AGE"

1960s

The 1960s, known as Lebanon's "Golden Age," were marked by the country's most prosperous transportation system. During this period, the Lebanese railway network was reorganized under Chemins de Fer de l'Etat Libanais (CEL), enhancing connectivity and efficiency.



Between 1960s-1970s

The neighborhood saw an influx of Armenian and other migrant communities, many of whom settled there.

The Sea Fill for Port and Coastline Expansion: Major land reclamation works began along the Beirut waterfront, especially near the Port area, to expand industrial and shipping zones.

In 1964 Michel Écochard's Master Plan for Greater Beirut: reorganized the capital's urban structure with new bypass highways, zoning for expansion, and a coastal belt, shaping much of modern Beirut's form.

1990



1994

SOLIDERE, a private company gets the concession to rebuild Beirut goes through amnesic restoration

2000

BEIRUT POST-WAR PERIOD
2000s

In 2000 the Downtown was rebuilt by Solidere which focused on luxury development and privatized spaces.

In 2005, Rafik Hariri's assassination sparked the Cedar Revolution and Syrian withdrawal.

In 2015, "You Stink" protests over waste crisis exposed urban and political failures.

In 2019, the nationwide protests erupted against corruption and inequality, known as the October Revolution.

2020



BEIRUT PORT EXPLOSION

August 4, 2020

Beirut port explosion devastated the city, killing over 200 people and destroying large parts in Beirut.

POST EXPLOSION

2021

A mountain of NGOs and international money came flooding to help rebuild the city.

2022

Severe economic crisis.

2024

Launch of New Public Bus Network: Official public buses reintroduced on connecting Beirut with major cities through fixed routes.

Displacement increased due to southern conflict.



Fig.4 Historical Evolution of Beirut (Author, inspired by (El Hage and Rizk, 2023))

2.2 Tracing Beirut History

Beirut, the capital of Lebanon and its most important city, has a long and complicated history that has been impacted by geography, trade, colonialism, and conflict. Its transformation from a little coastal town to a key hub in the Eastern Mediterranean shows how global trade, regional politics, and contemporary infrastructure have all come together over the years. Beirut's location along the Levantine coast, between the sea and the mountains, gave it a suitable place for trade and ingress. The city was settled as early as 3000 BCE, but it became especially well-known during the Phoenician, Roman, and later Islamic periods (Maronite Foundation, n.d.). After the Arabs took over in the 7th century, Beirut grew slowly until the Ottoman period, when it became a busy trading post again.

The 19th century was a very important time. Beirut became a major port for the silk trade with Europe, especially France. The growth of marine trade pushed it westward and interior. French missionary schools, consulates, and imported materials like Marseille tiles started to change the way the city looked and felt (El Hage & Rizk, 2023). At the same time, a new kind of contemporary infrastructure began to take shape. Trams, steamships, and railroads, the most famous of which is the Beirut-Damascus railway that opened in 1895, connected the city to the rest of the world through the movement of people, products, and ideas. Not only was this railway an engineering feat, it also connected people and cities. Trains connected Beirut to Damascus, Haifa, and even routes

to Cairo and Istanbul. This made people feel like they were part of a larger community and that they were moving and exchanging goods (El Hage & Rizk, 2023; The Photorealist, 2020).

The stations were busy public places, and the network itself became part of the city's history, representing Beirut's open and multicultural nature. By the start of the 20th century, Beirut's city layout showed how connected it was becoming. New boulevards, communities, and transportation corridors were built as a result of Ottoman modernization and European influence. After World War I and the start of the French Mandate, the city entered a new political era. Beirut was the capital of independent Lebanon in 1943. It became the country's cultural and administrative center. Many people call the years from the 1950s to the 1970s the city's "Golden Age." During this time, business, tourism, nightlife, and intellectual life all thrived (El Hage & Rizk, 2023). The port and industrial areas grew thanks to large-scale coastal land reclamation. Michel Écochard's 1964 master plan suggested new highways, zoning, and a coastal urban belt to help coordinate future growth (Écochard, 1963). But even with all this change, there were still fundamental disparities and conflicts.



Fig.5 Lebanese Railways from Beirut to Damascus (1960s) ,
(El Hage and Rizk ,2023)

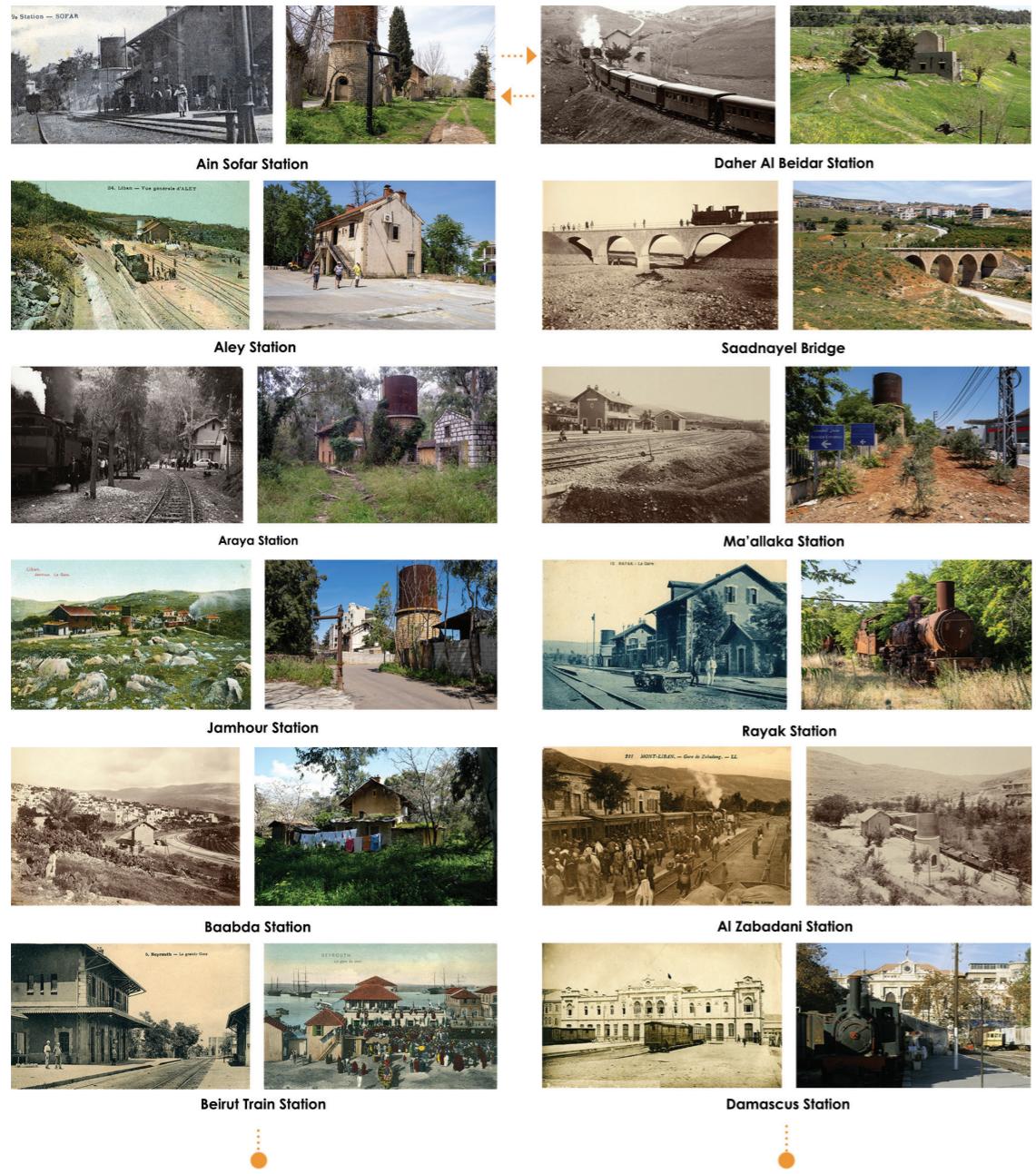


Fig.6 Beirut-Damascus Railway: Station Conditions During Operation and After Their Abandonment. (The PhotoOrientalist, 2020)

The Lebanese Civil War (1975–1990) tore the city apart along religious and political lines. Beirut turned into a war zone, with its infrastructure destroyed and its social fabric torn apart. The railway system, which used to be a symbol of connection and evolution, was demolished, left alone, or turned into front lines. What had once been a shared path for movement and recollection turned into a broken and decaying landscape. The rails corroded, the stations emptied, and private interests or informal usage slowly took over public territory (El Hage & Rizk, 2023).

Solidere, a private firm, led the effort to rebuild Beirut after the war. They wanted to turn the city's downtown into a worldwide business hub, putting real estate and consumption ahead of public life, rebuilding the city's destroyed architectural history and made the differences in space between well-kept areas and neglected areas even bigger.

Political shocks kept changing the city for example, the 2005 killing of Rafik Hariri and the Cedar Revolution, the 2015 “You Stink” movement that started because of the trash crisis, and the 2019 October Revolution that protested corruption and injustice. Every instant revealed problems with the way things were run and the infrastructure.

The explosion at the Beirut Port on August 4, 2020, was a terrible break. It revealed deep-seated corruption and unfairness in space while literally devastating whole neighborhoods. After the event, there were new calls for inclusive planning, public space recovery, and cultural protection (El Hage & Rizk, 2023).

In the years that followed, Beirut went through a lot of problems at once: the economy fell apart, more people had to leave because of fighting in the south. However recently the government tried to fix the city's infrastructure, including starting up a national bus network again in 2024 (Beirut.com, 2025).

The story of the railway, which used to be a symbol of connection but is now a symbol of abandonment, fits into a larger story about the state of Beirut's cities. Focusing on this highly neglected infrastructure is not an act of nostalgia but an act of critical remembrance.

The railway is a memory of Lebanon's evolution shared travel, and community life. Today, its rusty trains and little used hallways show how public space can be lost to neglect and commercialization (The PhotoOrientalist, 2020), but they also show that there is a chance for rejuvenation.

Bringing back the memory and physical presence of the railway is a way to put the pieces of the city back together, reestablish continuity, and see these corridors as places for community, civic participation, and spatial justice.

So, Beirut's history isn't a straight line; it's an image that has been formed by war, modernity, breaks, and strength. The rails may not carry trains anymore, but they still hold memories, and those memories could help the city come back together.

2.3 Urban Transformations

Beirut's urban form has evolved through a series of layered transformations (Yassin, 2019), shaped by several factors such as : trade, colonization, modernist planning, and post-war reconstruction. This complex history of urbanization reshaped not only the physical structure of the city , roads, blocks, and building typologies , but also redefined how people lived, moved, and interacted within it.

Under the French Mandate, this organic fabric was systematically reorganized. Planners like Michel Écochard and Gaston Ganger introduced zoning principles, arterial road networks, and gridded block systems to structure future growth. Écochard's 1943 master plan aimed to rationalize Beirut's expansion through regulated land division and improved infrastructure. While these interventions improved accessibility, they also set in motion long-term morphological changes , increasing the scale of urban blocks, redefining the hierarchy of roads, and fragmenting previously cohesive neighborhoods (Urban Development of Beirut, n.d.).

Urbanization accelerated further in the post-independence period (1950s-1970s), accompanied by demographic growth and real estate pressure. Major thoroughfares like the Charles Helou expressway were introduced to accommodate car traffic and economic activity.

However, such infrastructure also divided the city, weakening its pedestrian fabric and deepening spatial segregation. The Lebanese Civil War (1975-1990) and subsequent postwar reconstruction intensified these dynamics where Projects like Solidere, which rebuilt Downtown Beirut, replaced the war-torn historic core with large-scale blocks, wide roads, and commercial plazas.

Although this aimed to modernize the capital, it also introduced an exclusive, investment-driven morphology that diverged from Beirut's traditionally compact and inclusive urban grain (Urban Development of Beirut, n.d.).

These transformations produced a city of contrasts: between inherited Ottoman alleys and modernist grids, between pedestrian neighborhoods and car-dominated corridors, and between inclusive public spaces and privatized enclaves. The consequences of urbanization are stark , fragmented communities, uneven densities, loss of green and collective spaces, and a reduced capacity for inclusive urban life. Beirut today stands as a historical guide book of its past urban logics, continuously reshaped by waves of planning and unregulated development.



Fig.7 Map showing Beirut's historical development.
(Author, inspired by Yassin, 2022)



Fig.8 Map Showing Beirut's current road network.

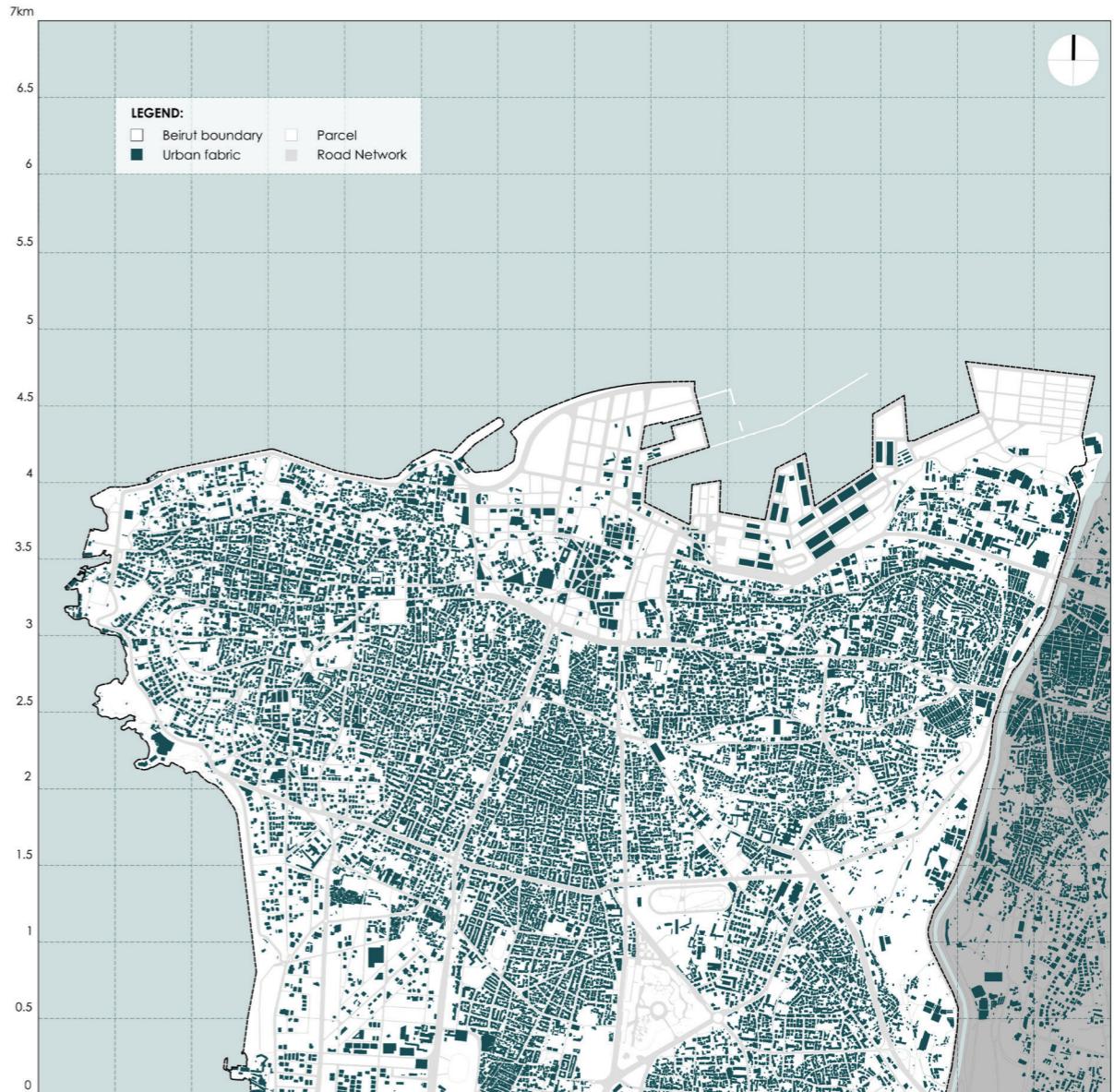


Fig.9 Map showing Beirut's current urban fabric.

2.4 The Decline of Green and Public Spaces

During Beirut war ,the city was separated into two parts with one long frontline, later vegetation starting to take place along the demarcation line ,whereas after war the green line disappeared due to massive reconstruction.

Today,Beirut has a serious shortage of green spaces that are easy to get to. **Each person only has 0.8 m²** of green space, which is much less than the World Health Organization's **recommended 9 m²** (Executive Magazine, 2020).

This lack of resources is not just an environmental problem; it is a serious urban crisis with big social effects. Parks like Horsh Beirut and Sanayeh Garden are important to history, but they are either hard to get to, being worked on. Highways or city walls often surround smaller gardens like Gebran Khalil Gebran Garden, limiting their potential as places for people to gather and relax.

The lack of green space is directly related to the decline of urban life as a whole. Antoine Atallah (2020) says that Beirutis are going through a deep "decline in the sense of space," where the city no longer supports a sense of belonging or a shared civic culture. Public spaces that used to help people remember, interact, and feel like they belonged to a community have been cut down or broken up, which has weakened emotional ties to the city and added to a general feeling of urban disconnection.

It is even harder to get to the other green spaces because of the uneven ownership between public and private parties.The AUB Garden is a beautiful, well-kept space, but only university members can use it (HeartB Foundation, 2022).

The Mar Mikhael train station also has a big, fenced-off green area that the government owns and that has a lot of untapped potential for the community.

These examples show how limited access and institutional control make public green spaces less accessible and more private, turning what should be shared spaces into private, inaccessible enclaves.

A lot of the green spaces that are still in Beirut are cemeteries that belong to different religious groups, like Muslims, Christians, and Jews. This makes it even harder to get to real public and recreational green spaces.

Despite these problems, local efforts show that people still want green and shared spaces that are easy to get to. The Beirut Green Project, for instance, found more than 24 hidden public gardens and started pop-up events like "Green Your Lunch Break," which drew hundreds of people (Executive Magazine, 2020). "The Place That Remains" (Yassin, 2018) also supports including leftover green spaces, riverbanks, buffer zones, and undeveloped land in a bigger urban plan that values them not just for their environmental benefits but also for their social and community potential.

The answer is to think of green spaces as shared infrastructure that is important for both social inclusion and the health of the environment. In a city like Beirut , bringing back shared green spaces is important not only for the health of the environment but also for rebuilding a sense of community in the city. These green places aren't luxuries; they're necessities where memory, diversity, and everyday life come together.

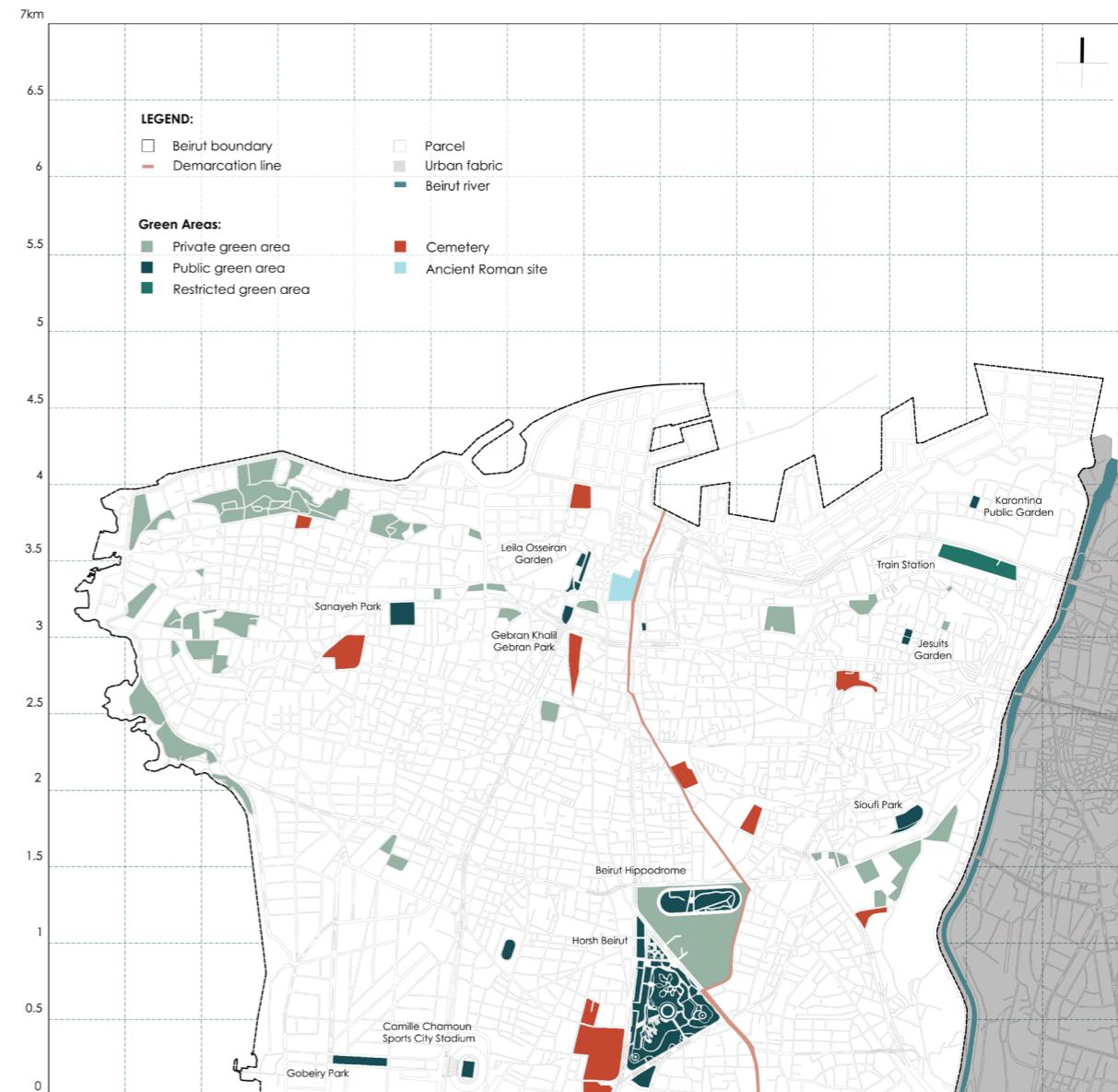


Fig.10 Map showing Beirut's green areas : public, private and restricted (Author, inspired by Hendi, 2023)

2.5 The August 4, 2020 Explosion and Its Aftermath

On August 4, 2020, 2,750 tons of ammonium nitrate that were stored in the Beirut port blew up. This was one of the biggest non-nuclear explosions in recent history. The explosion killed 218 people, hurt more than 7,000, and damaged homes and infrastructure worth an estimated \$3.8 to \$4.6 billion (Human Rights Watch, 2021). It also displaced more than 300,000 people.

It destroyed entire neighborhoods, such as Mar Mikhael, Gemmayzeh, and Karantina. This showed how vulnerable the people who lived there were and how fragile Beirut's urban structure is.

Human Rights Watch says that the explosion wasn't just the result of bureaucratic failure; it was also the result of years of deliberate indifference by Lebanese officials who knew the ammonium nitrate was dangerous but did nothing about it. The report gives strong evidence that high-ranking political and security officials knew how dangerous it was and chose not to remove it.

Since then, survivors and the families of the victims have called the explosion a form of violence by the state, saying:

"They killed us from the inside."

After the explosion, there was no national responsibility. Instead, there was political interference, delays, and obstruction in the investigation, which made people more suspicious and made them feel like they were all alone (Human Rights Watch, 2021). Without justice, volunteers, civil society groups, and local communities were the first to respond. They cleaned up the streets, fixed up homes, and saved what little of the city's social and physical memory was left.

The explosion is more than just one sad event. It is an example of the structural violence that is built into Lebanon's political and urban systems. It breaks down not only structures but also the fragile bonds of civic belonging and group trust.



Fig.11 Destruction at Beirut Port Following the August 4, 2020 Explosion. (Euro-Med Monitor, 2023)

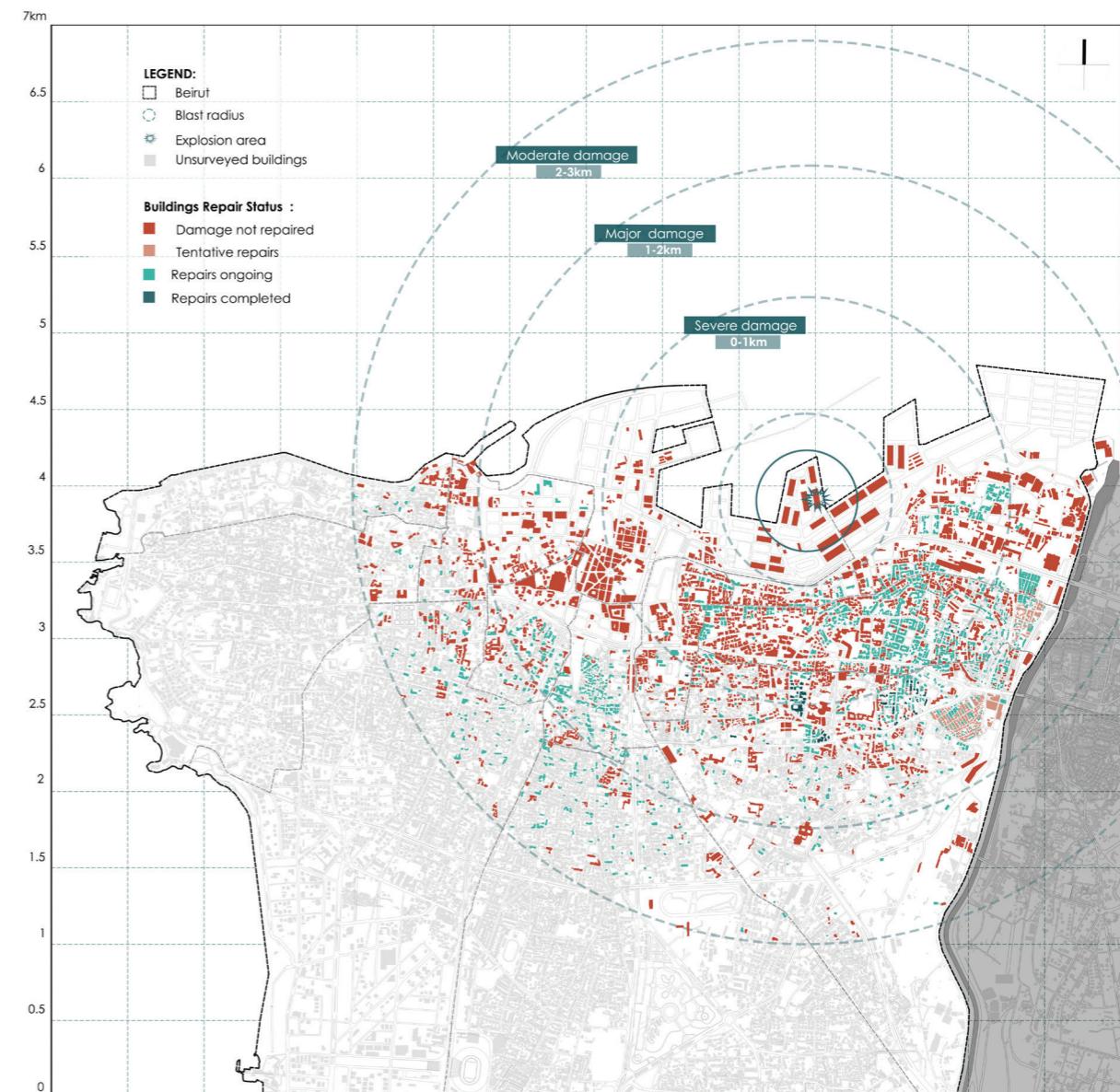


Fig.12 Beirut Port Explosion: Blast Radius and Affected Urban Fabric.
(Author; inspired by Beirut Recovery, accessed November 15 2025)



LEGEND:

- Beirut districts
- Neighborhood
- Gare Routière Charles Helou
- Charles Helou Avenue Highway
- Downtown
- Urban fabric
- Pre-Existing Street Connections
- Beirut river

Lines of Separation :

- Charles Helou Avenue Highway

2.6 The Social Fragmentation and Spatial Inequality

Lebanon's ongoing financial collapse has had a huge effect on Beirut's social and economic landscape where it has pushed a lot of people into poverty and made everyday life more unstable. In other words, basic services like electricity, transportation, and healthcare are no longer reliable. Moreover the situation has gotten worse led the burden to fall most heavily on low-income families and neighborhoods that are already on the fringes of society. These pressures have made spatial inequality in the city worse, making the gap between wealthy neighborhoods and areas that have been under-invested in and neglected for a long time even bigger (Human Rights Watch ,2022).



Fig.14 Charles Helou Highway.



Fig.15 Gare Routière Charles Helou . (Bus-Planet ,2025)

2.6.1 Infrastructure as Division: The Case of the Charles Helou Highway

The Charles Helou Highway which was constructed in the late 1950s had reshaped Beirut's urban landscape by severing neighborhoods and creating enduring socio-spatial barriers (Aouad and Kaloustian,2021). In instance, within Karantina, the highway physically isolated the district from Mar Mikhael, transforming it into an infrastructural enclave bordered by the port, the river, and the roadway. This separation had disrupted long-standing community networks, and deepened the marginalization of an already vulnerable neighborhood (Beirut Urban Lab,2022).

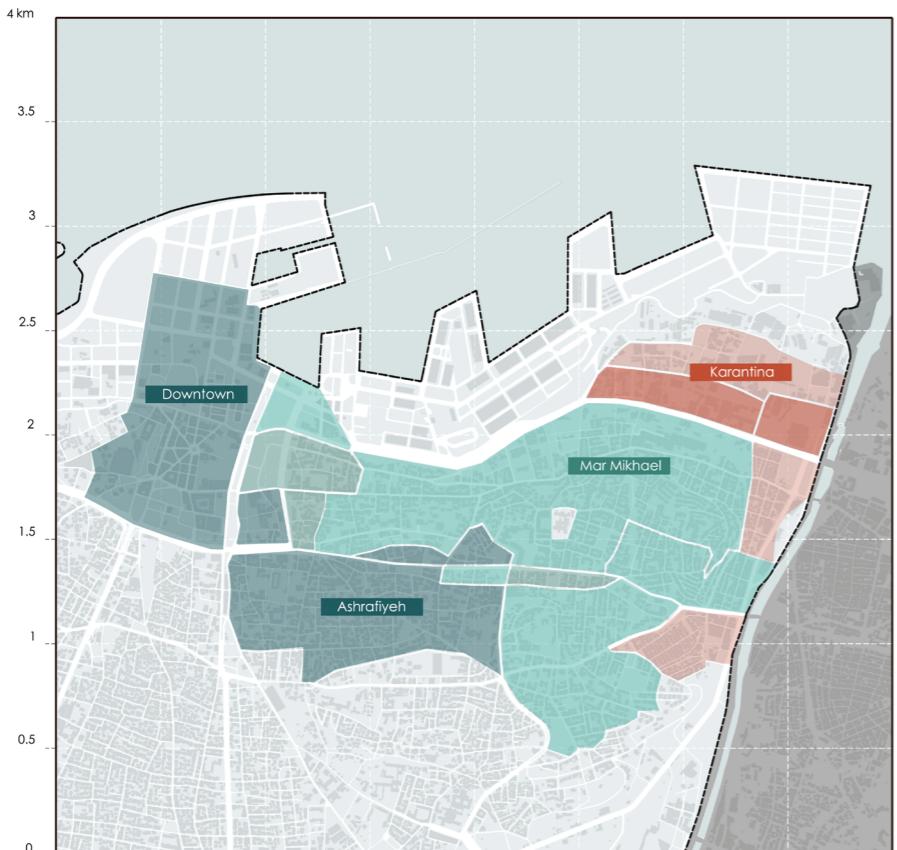
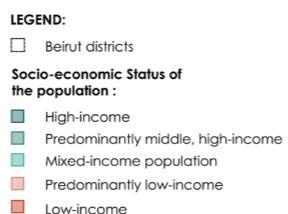


Fig.16 Socio-Economic Distribution Across Beirut. (Author, inspired by Aouad and Kaloustian, 2021)



For instance this highway was planned to facilitate mobility along Beirut but on the contrary, where traffic was always a part of the highway's identity. Mar Mikhael was likely affected having the highway fractured the area into a vibrant southern section and a disconnected northern edge that became economically and socially neglected. This northern part used to be connected to the sea and the train station, but now it is cut off, which has led to urban decay, fewer people walking around, and weaker social ties. A pedestrian bridge was added only years later, which was a late and inadequate step that showed how the infrastructure was made more for cars than for people.

Ultimately, the Charles Helou Highway, which then was a symbol of modernization, became a mechanism of spatial division and social separation. This case mainly shows how the infrastructure in Beirut has often made things fragmented instead of connected.

By prioritizing vehicular mobility over walkability and public interaction, the highway entrenched patterns of exclusion and contributed to an urban condition in which collective life and accessibility are undermined and neglected entirely.

In other words, this case shows how big structures can be used to separate people from each other, changing not only the physical environment but also how people feel about belonging, access, and social inclusion in the city.

2.6.2 Contrasting Urban Realities: Portraits from Three Neighborhoods

In Beirut, neighborhoods can be very close to each other, but they can also host very different social groups. For instance, Downtown, Karantina, and Mar Mikhael are all less than five minutes away from each other by car, but they each represent different social reality. Their closeness shows how big social gaps can be regardless of their close proximity.

Downtown Beirut :The Manufactured Luxury of Solidere

Downtown Beirut has always stood as a strong example of how postwar reconstruction can erase the soul of a city. Through the Solidere project, the area was stripped of its historical fabric, displacing former residents, dismantling informal economies, and wiping out the layered, lived-in character that once defined it. Entire neighborhoods were demolished, along with the communities and social networks that had grown within them. What replaced them was a high-end landscape of luxury shops, corporate offices, and empty plazas, visually impressive looking but disconnected from the people as well as the stories that once animated the space and local architectural character. As Fawaz (2009) argues, this vision of the city was shaped not for its citizens but for investors and consumers hence turning the heart of Beirut into a privatized stage set, devoid of collective memory and belonging.



Fig.17 Photo of Downtown Beirut souks.
(Akiki ,2024)



Fig.18 Photograph of Mar Mikhael neighborhood.
(Ghorayeb, 2025)



Fig.19 Photograph of Karantina neighborhood.
(Ghorayeb, 2025)

Mar Mikhael: A Space of Cultural Tension and Transition.

Unlike Downtown, Mar Mikhael was and will remain a dynamic area yet caught in a state of uncertainty. The area has passed through phases of cultural revival over the past decade through art spaces and creative industries, attracting both locals and tourists. However, this vibrancy exists alongside signs of instability such as rising rents, disappearing long-time residents, and the risk of gentrification (Gerbal, 2016). The neighborhood of Mar Mikhael lacks adequate green spaces and inclusive public infrastructure. Mar Mikhael thus becomes a symbol of Beirut's middle ground, active yet vulnerable, whom which is suspended between preservation and transformation.

Karantina: Layers of Neglect and Resilience.

Karantina represents the other extreme, a district that bears the cumulative impact of industrial zoning, environmental risk, and systemic neglect (Aouad and Kaloustian 2021). Characterized by working-class communities, informal settlements, and nevertheless limited state investment. Moreover, Karantina suffers from poor living conditions and almost no green or recreational spaces. However, beyond this neglect lies a deep layer of local resilience. Meanwhile, private organizations such as NGOs, religious institutions, and grassroots networks have long compensated for the absence of state support, especially after the 2020 port explosion. Beirut Urban Lab (2022) highlights how despite difficult conditions, the community has developed coping mechanisms and solidarity structures with determination that reflect a different yet grounded form of urban belonging, one rooted in care, survival, and collective endurance.



Beirut's urban evolution shows a city with many different histories, insufficient planning, and crises that keep happening constantly and changing its neighborhoods and spaces. Colonial rule, rebuilding after the war, and the 2020 port explosion have all left visible scars on how people move around, how land is used, and how neighborhoods live their daily lives.

These problems have made things even more broken and social inequalities worse. However what really makes Beirut unique is not how big its problems are, but how strong its unity is.

After every shock, like war, economic collapse, or natural disaster, solidarity comes back as a strong, unifying force. People of different religions, cultures, and social classes get back together, and neighbors help each other rebuild. This spirit of togetherness never goes away. It comes back every time the city is tested, showing how strong the ties are between the people who live there.

What makes Beirut special is that people are always there for each other which transforms pain into shared strength and makes divided spaces into places where people can support each other. For instance, to come up with new urban strategies that make people feel more connected, included, and healthy as a group, is a must to understand how this dynamic works. In the end, Beirut's story is about people who keep rising together and refusing to let crisis take away their ability to live, rebuild, and hope as a one community.

CHAPTER 3

The Neighborhood of Mar Mikhael

3.1 Historical Background and Urban Context

3.2 Urban Mobility and Fragmentation

3.2.1 Road Network

3.2.2 Pedestrian Flows and Informal Mobility Practices

3.2.3 Stairways

3.2.4 The Fouad Boutros Highway Proposal : Barrier or Bridge?

3.3 Urban Fabric Composition

3.3.1 Building Ages

3.3.2 Height Distribution

3.3.3 Zoning Maps

3.4 Social and Spatial Transformations

3.4.1 Layered Functions

3.4.2 Stakeholders and Ownership Dynamics

3.4.3 Mar Mikhael After Dark: Between Attraction and Tension

3.4.4 Neighborhood Gentrification

3.5 Green Space Dynamics in Mar Mikhael

3.5.1 Major Green Areas

3.5.2 Minor Green Spots

1890

OTTOMAN ERA

1893

Built by La Société de Construction des Batignolles à Paris, Mar Mikhael station followed the PLM (Paris-Lyon-Mediterranean) model while incorporating a unique design adapted to the local climate and heritage.



1895

The Mar Mikhael station, the birthplace of the Levant railway, saw the departure of the first train in the region towards Damascus, marking the completion of the Beirut-Damascus railway.



1900

Early 1900s

Industrial Growth: The station's presence transformed Mar Mikhael into a working-class industrial district.



1908

The tramway network expanded, reaching Maamtein, while Mar Mikhael remained at the heart of the Société des Tramways Libanais.



COLONIAL PERIOD

1920s

The area urbanized further with triple-arcade houses and industrial hangars. The station remained active and strategically important for trade and travel.



1930

"The Taurus Express" now terminates at Mar Mikhael station, arriving from Rayak, providing yet another convenient travel option for both passengers and freight.



1950

Mid-20th Century

Mar Mikhael evolved into a mixed industrial-residential zone, with factories, warehouses, and artisan workshops shaping its character. The railway station played a key role in transporting goods.

In the 1950s, the NBT (Naqoura -Beirut-Tripoli) railway is extended to Mar Mikhael station and the Beirut port.

Mar Mikhael became an urban corridor connecting the port, Gemmayzeh, and Bourj Hammoud.

1960

BEIRUT "GOLDEN AGE"

1960s

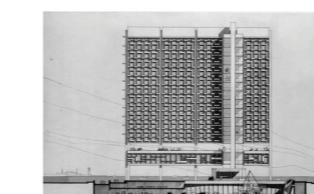
Reflecting Beirut's Golden Age, Mar Mikhael station experienced a remarkable era, welcoming sleeping cars from the Taurus Express and serving as the gateway to the hinterland from Damascus.

1970

1970s

The neighborhood saw an influx of Armenian and other migrant communities, who settled there and contributed to the area's cultural and social fabric.

The EDL building, a distinctive brutalist structure, was constructed in the 1970s and remains one of the most prominent landmarks in the area.



CIVIL WAR IN LEBANON

1975-1990

The railway station and Mar Mikhael's location between East and West Beirut made it a contested area during the war.

The railway network collapses, and the station falls into disuse and obscurity.

1990

POST-WAR AND GENTRIFICATION

1990s-2000s

Post-War Neglect: While Downtown Beirut was rebuilt by Solidere, Mar Mikhael remained untouched, preserving its authentic urban and industrial character but lacking investment.

2010s

Cultural Renaissance: Artists, cafés, and small businesses revived Mar Mikhael into a creative hub. The train station occasionally hosted art festivals and cultural events, symbolizing Beirut's resilience..



2020

BEIRUT PORT EXPLOSION
August 4, 2020

Mar Mikhael suffered severe damage, with destroyed buildings, displaced residents, and historic heritage at risk, including the train station buildings.

Community and international efforts mobilized to support recovery and reconstruction.



However, gentrification and social tensions continue, sparking debates over heritage conservation, displacement, and the neighborhood's evolving identity.



2025

Today:

The station is not yet operational but serves as a heritage landmark under renovation. It embodies Beirut's transition from abandonment to renewal, representing hope for a collective and inclusive urban future.

Fig.20 Historical Evolution of Mar Mikhael (Author, inspired by (El Hage and Rizk 2023))

Mar Mikhael is one of the most historically rich and socially active neighborhoods in Beirut. The Beirut-Tripoli railway, industrial growth, and later waves of urban change have all shaped it into a complex network where heritage buildings, mixed uses, and changing social and economic conditions all live together. Today, Mar Mikhael is at the crossroads of memory and change, offering a unique lens through which to understand Beirut's broader urban trajectories.

3.1 Historical Background

The history of the Beirut-Tripoli railway line and the Mar Mikhael Train Station is linked to the growth of the Mar Mikhael neighborhood. Together, they had a big impact on the neighborhood's shape and identity, where it started to become more populated in the late 1800s and early 1900s, when the Ottoman Empire and then the French Mandate modernized the infrastructure. For instance, the neighborhood gets its name from the Mar Mikhael Church which was built in honor of Saint Michael and was an important religious and social center for the community in the past. During this time, important infrastructure changed the district, for example, the Électricité du Liban (EDL) headquarters was built in 1965 and finished in 1972, which made Mar Mikhael more industrial and infrastructural (ACTED, 2021b).

The railway corridor made the area a place where the port, industrial areas, and the slopes of Achrafieh all meet. The Rayak junction indirectly connected the Lebanese rail system to the Taurus Express (1930), which ran from Istanbul to Aleppo, Mosul, and Baghdad (El Hage & Rizk, 2023).

The Mar Mikhael Train Station was built during the Mandate era and served as a logistical hub for the Beirut-Rayak-Damascus system and later the Beirut-Tripoli coastal line. It was mostly used for moving goods, which helped the port economy grow and industrial activities along the waterfront (El Hage & Rizk, 2023).

The station was surrounded by warehouses, repair hangars, and small factories, which helped to shape the district's working-class and semi-industrial identity. Before cars became popular, there were only a few ways for people to get to nearby towns.

As the neighborhood grew, the station became the center of daily life. Workers moved in nearby, businesses grew along Armenia Street, and a fine-grained urban fabric of workshops, low-rise housing, and stair networks formed. The rail line had a big effect on how streets were laid out, how plots were divided up, and where industrial parcels were placed. The Civil War (1975-1990) and the years that followed when the railway system was ignored caused it to get worse. The Mar Mikhael station was completely empty by the 1990s. It had empty hangars, unused tracks, and a lot of state-owned land. This abandonment changed the district:

- Land that wasn't used much became vulnerable to speculative real estate.
- Industrial parcels changed to commercial and nightlife uses.
- Traffic got worse as more people relied on cars.

Even though it was falling apart, the station was still a well-known landmark in the area. In the 2000s and 2010s, nightlife, creative industries, and speculative developments quickly changed Mar Mikhael into a more upscale neighborhood.



Fig.21 Map showing the railway and tramway network in the 1950s (Author, inspired by El Hage and Rizk, 2023; Prints-Online, 1945).

LEGEND:

In 1950s:	
Beirut boundary	Railway, Narrow Gauge (Beirut - Damascus - (Mar Mikhael))
Tram Line	Railway, Normal Gauge (Europe, Beirut - Tripoli line)
In 1960s:	
Beirut boundary	Sea Filling
Road Network	



The station that was no longer in use became a “waiting zone,” which was public land that was strategically located but not used or connected. The Mar Mikhael Urban Snapshot (ACTED, 2021b) shows that this change sped up the loss of heritage, the number of empty homes, and the movement of long-term residents.

The explosion at the Beirut Port in 2020 caused a lot of damage to the neighborhood, even in places near the rail corridor. Heritage buildings were badly damaged, and social groups that were already vulnerable were forced to move even more. Recovery was uneven, which made the area more fragmented.

After the explosion, a number of NGOs, universities, and international organizations became interested in the train station's potential again.

The Beirut Urban Lab, UN-Habitat, ACTED, and UNHCR all said that the site was a key public asset. Cultural activities and campaigns that emphasized the need to conserve and reinterpret the station were supported by the Italian organizations (AICS and the Istituto Italiano di Cultura).

3.2 Urban Context

Mar Mikhael is a culturally diverse and rich neighborhood situated between Rmeil and Medawar, the northern entrance to Beirut. It is bordered by the Port in the north, Bourj Hammoud in the east, Achrafieh and Geitawi in the south and the west respectively.

The urban environment of Mar Mikhael is characterized by the topography, land occupation and an extensive urban infrastructure.

The neighborhood is located at an uplift between 5 to 20 meters above the sea level at the waterfront, almost to 70 meters towards its edges resulting in steep transitions in determining movability and the relation between low commercial streets and high residential ones.

Publicly owned land, municipal parcels, and several occupied or inaccessible sites further influence how space is used in Mar Mikhael and its surrounding.

Today, Mar Mikhael is one of the busiest spots in the city with a wide range of concentration of educational, medical, cultural, religious, business and community centers (ACTED, 2021a; ACTED, 2021b).

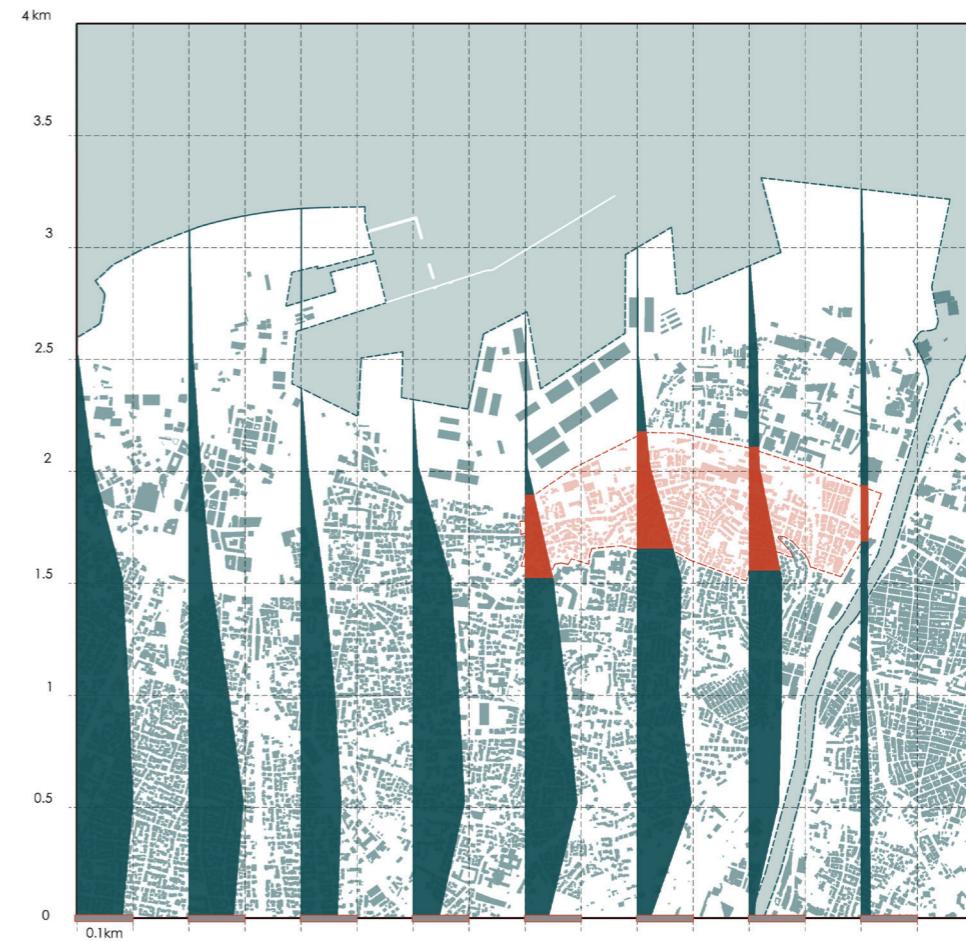


Fig.22 Map showing the topography and altitude variation of Beirut and Mar Mikhael.

LEGEND:

- Beirut boundary
- Mar Mikhael boundary
- Altitude Variation Across Beirut
- Altitude Variation Across Mar Mikhael



Fig.23 Map showing governmental, municipal properties, and military-occupied sites in Mar Mikhael and its surroundings. (Author, inspired by ACTED ,2021a; ACTED ,2021b)

LEGEND:

- Mar Mikhael
- Governmental property
- Municipal property
- Inaccessible Military barracks
- Sea and Beirut River

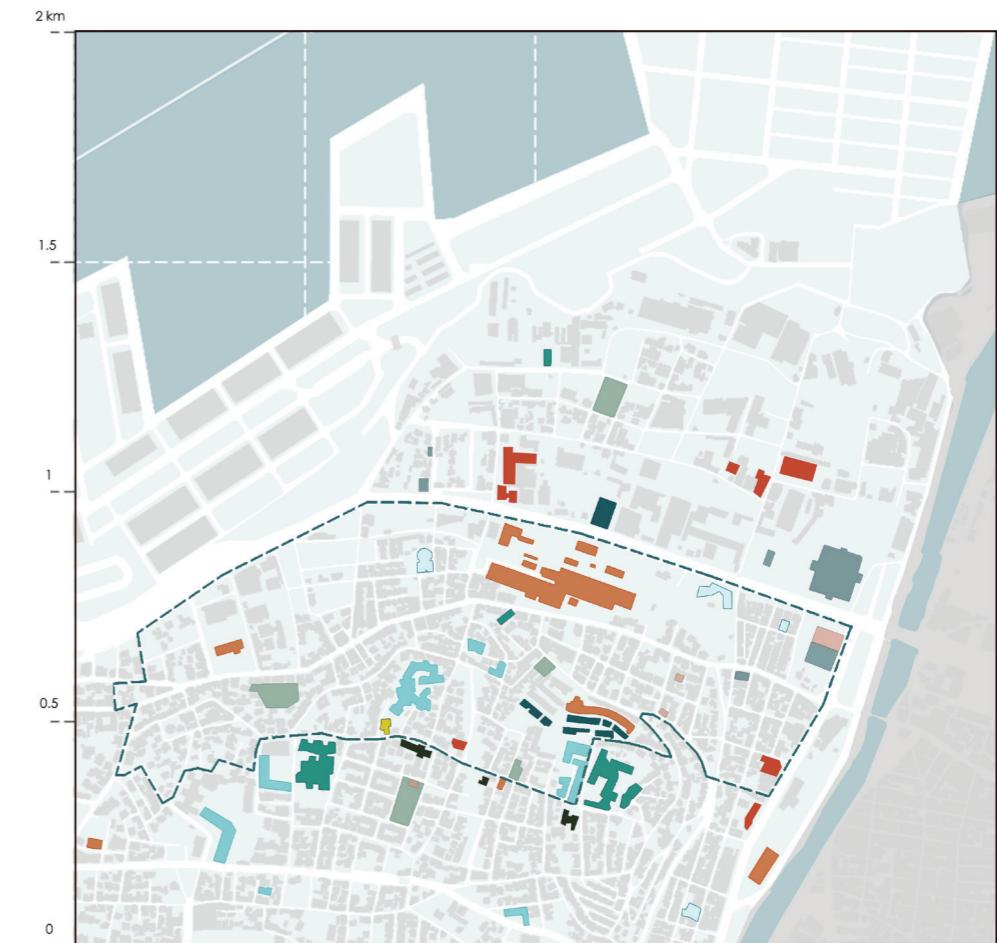


Fig.24 Distribution of Facilities in Mar Mikhael and Its Surroundings. (Author, inspired by ACTED, 2021a; ACTED ,2021b).

LEGEND:

□ Mar Mikhael	■ Entertainment facility	■ Educational facility
■ Governmental facility	■ Cultural facility	■ Garden
■ Medical facility	■ Military facility	■ NGO or communal organization
■ Religious facility	■ Business facility	■ Political or Religious organization

3.3 Urban Mobility and Fragmentation

3.3.1 Road Network

The streets in Mar Mikhael are comprised of very narrow old streets and an irregular grid that was not originally intended to accommodate the number of people who pass through the area.

Armenia Street is the main road for cars and trucks in the area, but its narrowness, constant parking, and commercial loading activities make traffic bad all day long (NAHNOO, 2020).

During the night, when bars, restaurants, and clubs are open, traffic gets worse because there are so many people trying to get

around. Secondary streets are often known to be one-way and too narrow to handle extra traffic, which causes blockages and slow movement specially during the night. In addition, limited options for public transportation make people even more dependent on cars, which puts even more stress on the already limited network.

The road system causes fragmentation, noise, air pollution, and chaos between cars and pedestrians. This shows that the neighborhood needs more balanced and multi-modal ways to get around.



Fig.25 Map of the Road Network in Mar Mikhael .

LEGEND:

Circulation		Dead End Street		Old Train Rails	
Mar Mikhael	Highway	Secondary Road	Dead End Street	Old Train Rails	
Train Station Limits	Primary Road	Tertiary Road			Stairs
					Fouad Boutros Highway Project Proposal



Fig.26 Photograph showing a street in Mar Mikhael .

3.3.2 Pedestrian Flows and Informal Mobility Practices

Compared to other neighborhoods Mar Mikhael is one of the most walkable neighborhoods in Beirut, but still the sidewalks and streets can be hard to walk on. A lot of the sidewalks on Armenia Street and the streets around it are broken up, or blocked.

In some places, outdoor seating areas for cafés and restaurants block the pedestrian path. Motorcycles also often park on sidewalks.

Because of this, people walking often have to step into the road, which makes it unsafe and uncomfortable to walk (ACTED, 2021b). Crossing the street is just as hard because there are no special pedestrian crossings, signals, or safe places for pedestrians to wait and signal drivers to stop. Hence residents and visitors have to find their own way around cars, cross at random points, or take shortcuts through parking lots, stairways, and building entrances.

In other words, these improvised behaviors make up for the lack of planned pedestrian facilities, but they also show how fragmented and vulnerable pedestrian movement is in Mar Mikhael.

Even with these problems, biking has naturally become a useful way for people who live, work, or are creative in the district to get around. Cyclists ride on narrow streets and share the road with cars and scooters, which can be dangerous because there are no bike lanes or other ways to slow down traffic. This informal cycling culture shows how adaptable the people are and how important it is to plan for more accessible transportation.



Fig.27 Photograph showing restaurant extensions on the sidewalk .



Fig.28 Photograph showing bicycle parked by resident in the neighborhood.



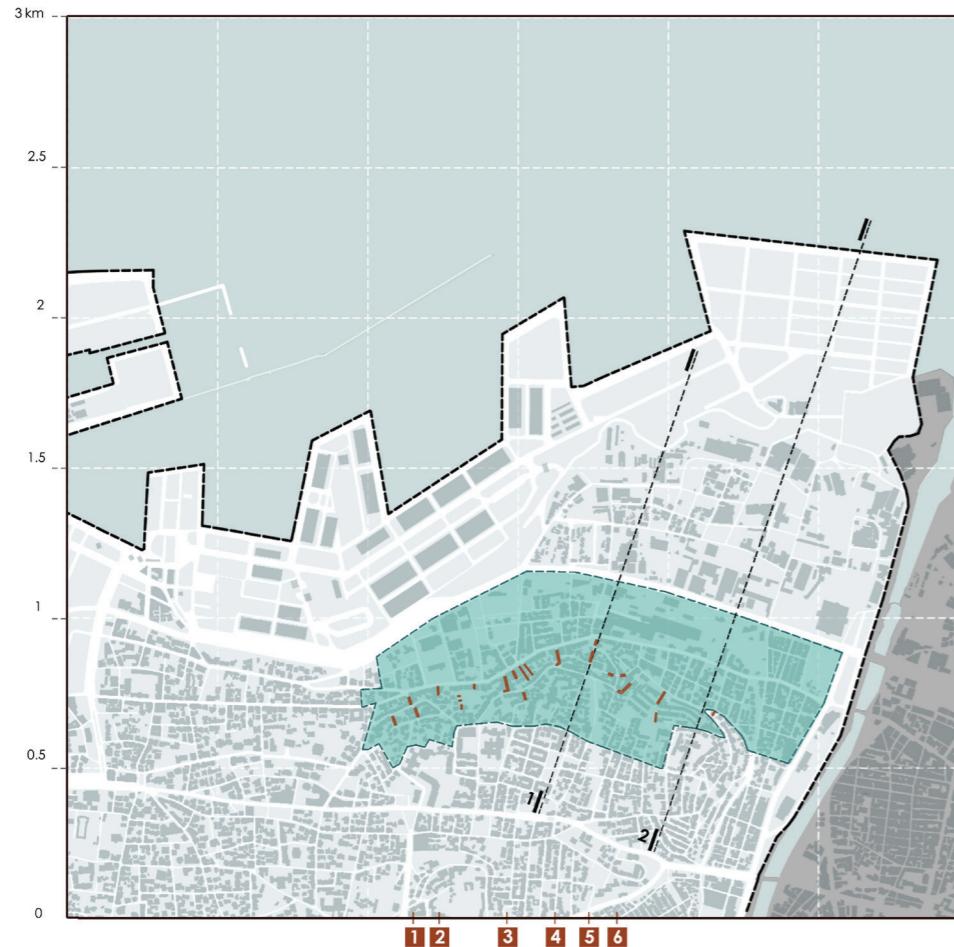


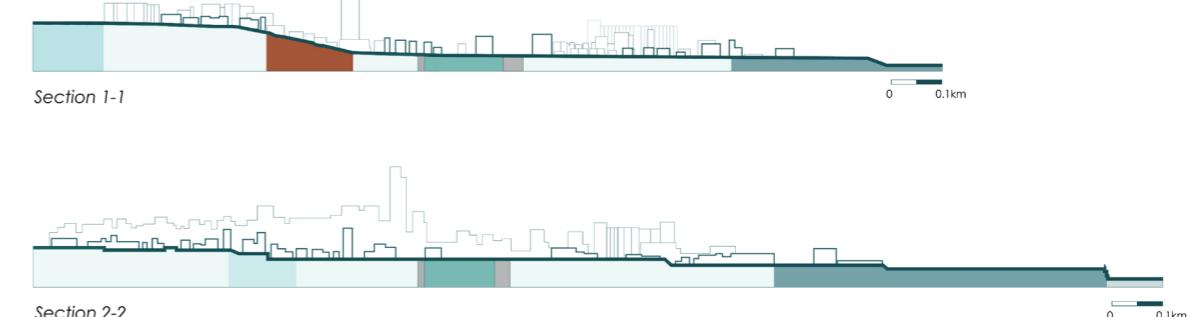
Fig.29 Stairways in Mar Mikhael: A Response to Steep Topography .



3.3.3 Stairways

Because Mar Mikhael's land is sloped, there are big vertical differences between the waterfront and the upper neighborhoods of Achrafieh, Sassine, and Geitawi. In the past, this area needed a lot of staircases to connect the higher residential areas to the lower commercial streets called Armenia Street.

Important staircases that make up an important network for vertical pedestrian mobility are the Gholam Stairs, the stairway facing the EDL building, the Masaad Stairs, the Live Love Beirut Stairs, the Geara Stairs, and the Laziza Stairs (NAHNOO, 2020).



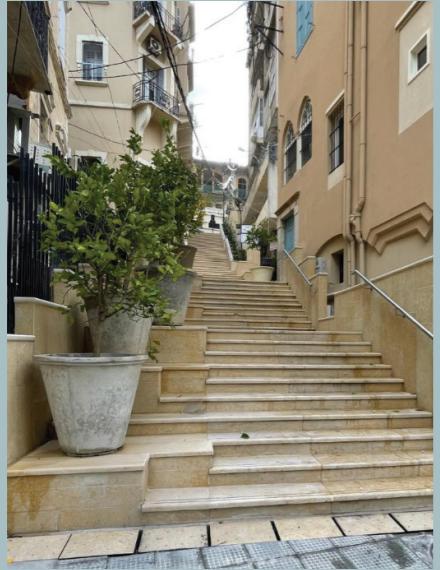


Fig.30 Stairway 1 : Photograph of Golam Stairs.
(Dagher, 2022)



Fig.31 Stairway 2 : Photograph of The Stair facing
EDL .



Fig.32 Stairway 3 : Photograph of Masaad Stairs.

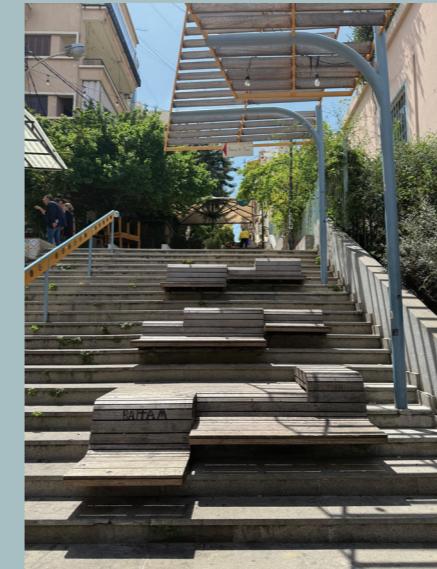


Fig.34 Stairway 5 : Photograph of Gerra Stairs.

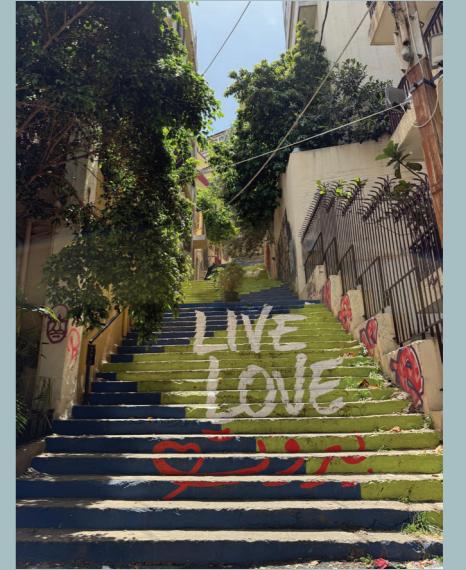


Fig.33 Stairway 4 : Photograph of Live Love Beirut
Stairs .

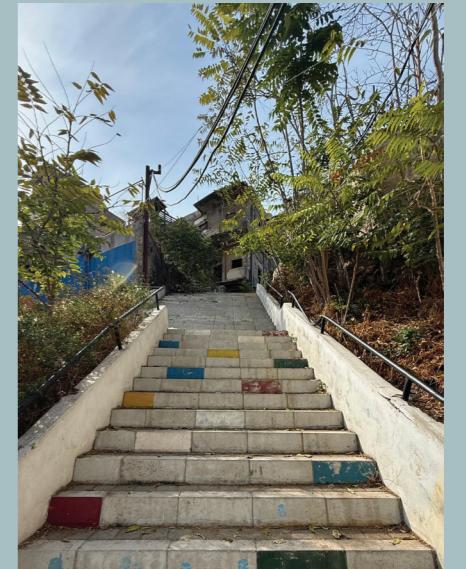


Fig.35 Stairway 6 : Photograph of Laziza Park Stairs.



Fig.36 Photograph of Mar Mikhael showing the sloped topography with a stair-sidewalk connecting upper and lower streets.

These stairways have become more than just useful; they are now symbols of Mar Mikhael's urban identity. They are informal meeting places where people can stop, talk to each other, or find quieter places away from busy main roads. Some staircases are kept up and landscaped, while others are not. Their sheltered corners have also become safe places for stray cats to stay, which shows how even animals that don't live there adapt to the neighborhood's rhythms and lack of green spaces. These unplanned uses show how stairways can be flexible public spaces that help people move around and build community.

The Mar Mikhael Square Project, which directly affects the Gholam Stairs, is a major recent intervention. The project was created by the Beirut Urban Lab at the American University of Beirut and designed by the late urban planner Habib Debs with Francis Landscapes. Its goal is to turn the landing of the Gholam Stairs, which is at the intersection of Gouraud, Pasteur, and Armenia Streets, into a larger public square that is more pedestrian-friendly. The project aims to make walking easier by calming traffic, adding new plants, improving lighting, adding more urban furniture, and improving drainage (Beirut Urban Lab, n.d.). It is in line with the Plan de Déplacements Doux and Beirut's Plan Vert.

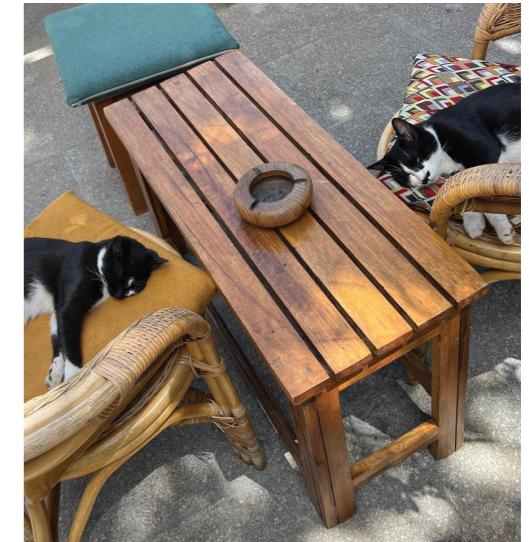


Fig.37 Photograph of cats resting near the stair area in Mar Mikhael.

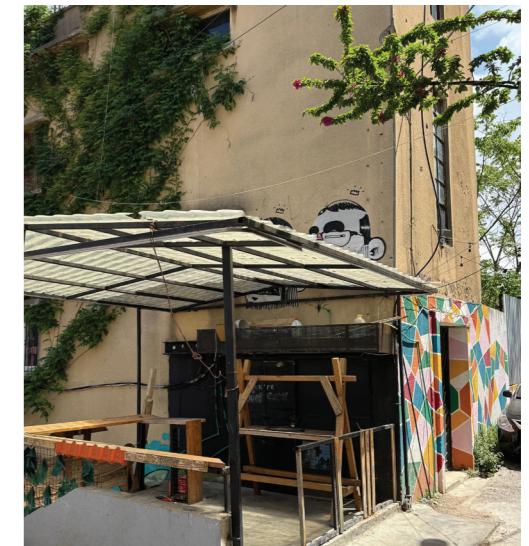


Fig.38 Photograph showing some extended areas added to the site near the stairs.



Fig.39 Photograph showing the urban intervention and implemented furniture on the Gear Stairs.

3.3.4 Graffiti as an urban expression

Graffiti in Mar Mikhael doesn't feel like decoration but like the neighborhood speaking in its own voice. Every mural, faded slogan, or quick spray tag shows how the district has lived with the tension between creativity and struggle adding memory, hope, and frustration to worn stone walls and metal shutters.

The colors, textures, and improvised compositions of the streets bring the public space to life, softening the edges of buildings and giving empty corners a sense of presence and meaning that people wouldn't expect.

In today's post-crisis urban environment, this graffiti serves as a medium for collective storytelling, anchoring Mar Mikhael's urban identity in authenticity and emotion while providing an unrefined perspective on the neighborhood's changing spirit.



Fig.40 Photograph the Graffiti on stairs wall .

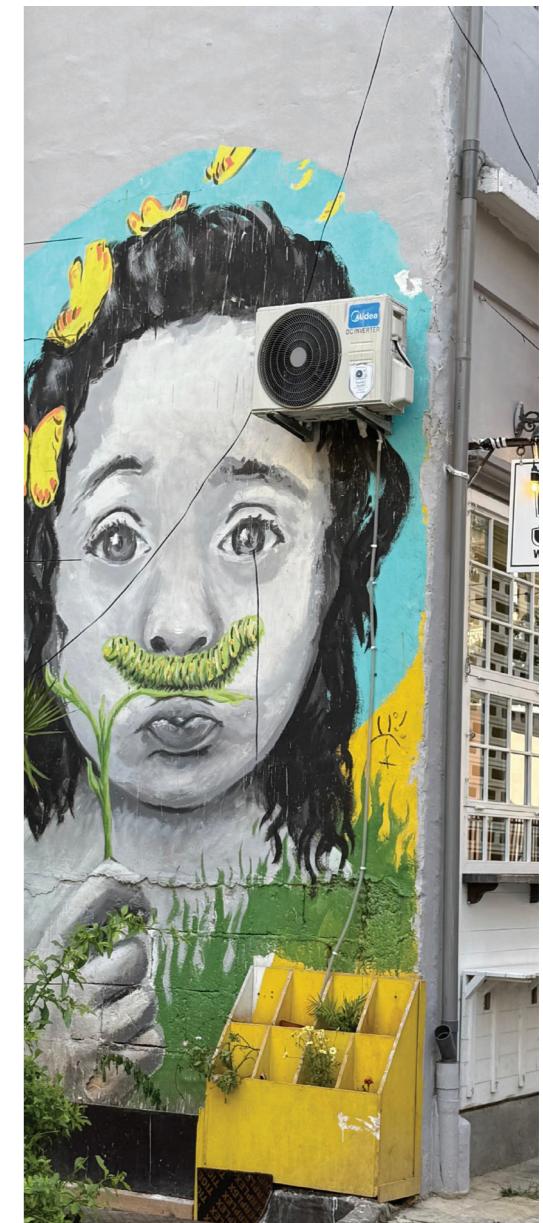


Fig.41 Photograph the Graffiti on the walls .



Fig.42 Photograph showing the Graffiti the walls.

3.3.5 The Fouad Boutros Highway Proposal : Barrier or Bridge?

The Ecochard Master Plan from 1952 included the Fouad Boutros Highway as a major east-west road that connected Achrafieh to the port. Expropriations started in the 1970s, but the project was never finished, leaving behind empty lots and a broken-up urban fabric (Ayoub, 2014).

Residents, activists, and urban experts have all strongly criticized the plan because it would destroy heritage homes, remove green spaces, increase traffic, and cut through walkable, socially active neighborhoods like Mar Mikhael (Stop the Highway, 2025).

Research and community groups say that highways in densely populated urban areas do more harm than good by making traffic

worse, increasing noise, pollution, and social fragmentation.

Instead of making it a highway, NGOs and civil groups have suggested turning the corridor into a linear public park. They see this as a chance to reconnect neighborhoods, protect heritage, and make it easier for people to walk (Balldati, 2014).

In this context, the Fouad Boutros axis is not just a transportation project; it is a choice between two ways to build cities: a highway that divides people and is focused on cars, or a green connection that is like a bridge and is focused on people and fits with inclusive and collective urban futures.



Fig.43 Photograph showing Protests Against the Fouad Boutros Highway Project (Environmental Justice Atlas, 2014)

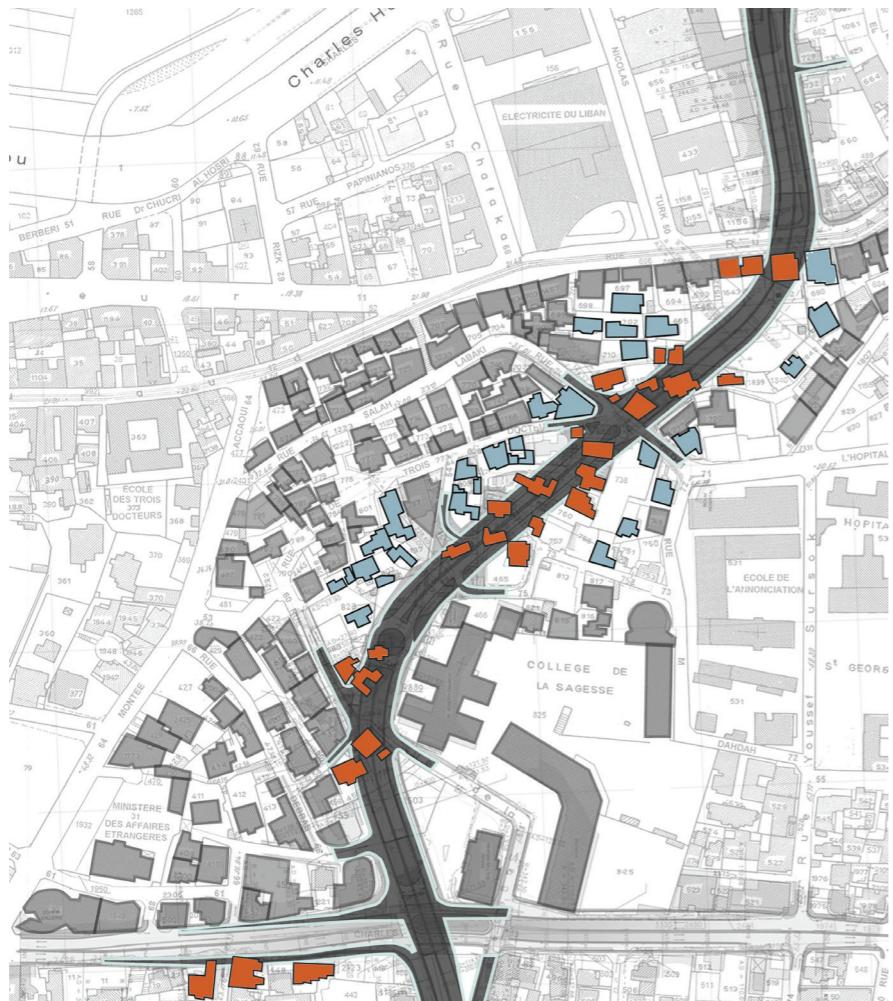


Fig.44 Map showing buildings endangered and to be demolished by the proposed Fouad Boutros Highway. (Stop the Highway Coalition, Accessed 2025)

60 Buildings endangered and to be destroyed by the highway

LEGEND :

Buildings destroyed by the project

Buildings endangered by real-estate pressure and environment degradation.

28 to be destroyed ,30 endangered

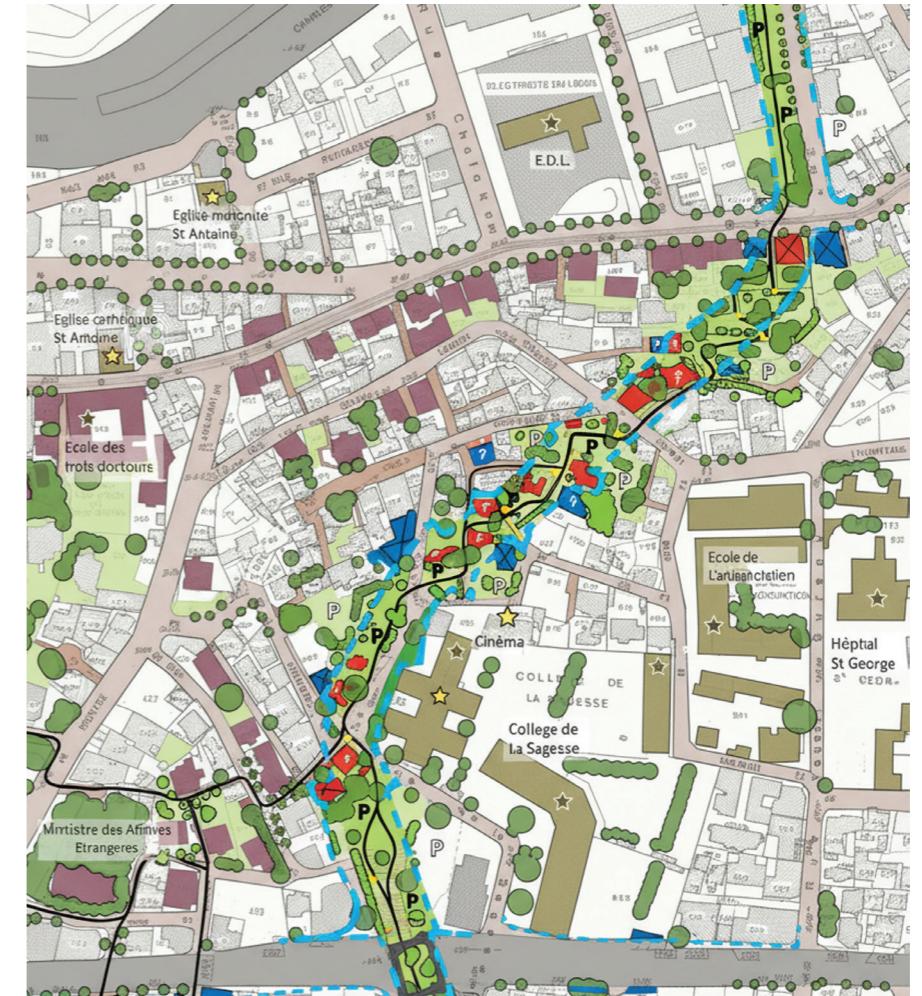


Fig.45 Map showing the alternative green and pedestrian proposal developed by the Civil Coalition Against the Fouad Boutros Highway .(Stop the Highway Coalition, Accessed 2025)

LEGEND :

Historic buildings to preserve (Expropriated or in the process of expropriation)

Proposed green spaces on expropriated or soon-to-be-expropriated land

Existing green spaces
Existing pedestrian paths
Classified historic buildings

Proposed route
Public or educational facilities
Underground or surface parking

Cultural / Commercial Hub
Existing surface parking
Staircase



3.4 Urban Fabric Composition

3.4.1 Building Ages and Architectural Layers

Mar Mikhael's architectural fabric is characterized by the coexistence of diverse building epochs, each distinguished by its unique typology, materiality, and construction logic. The oldest houses are built in the traditional Lebanese tripartite model, which is easy to spot since they have a central bay, three arcades, sandstone masonry, lime plaster, wooden roofs, and red clay tiles (NAHNOO, 2020).

These buildings show how people used to build things by hand and in a way that worked with the weather. This is how the neighborhood looked before modern materials were used.

After 1920, new buildings started to have verandas, bigger openings, and smaller internal layouts that were better suited to the growing number of people living in cities. During this time of change, the ground floors became more commercial while the upper floors stayed residential. This was the start of the mixed-use pattern that still defines Mar Mikhael today (NAHNOO, 2020).



Fig.46 Heritage buildings of Mar Mikhael aligned along Armenia Street .(Najib ,2022)

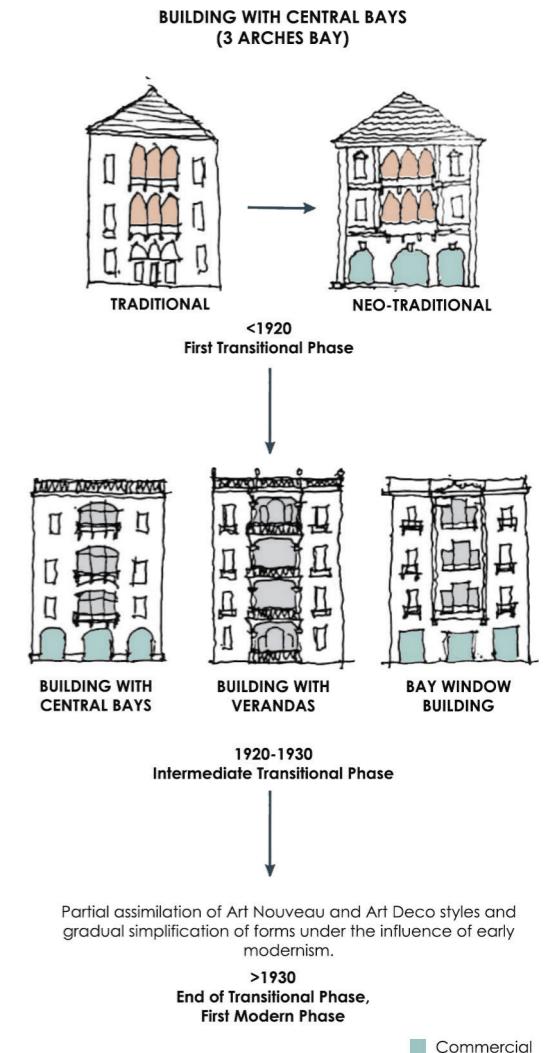


Fig.47 Diagram illustrating the typological evolution of the buildings in Beirut before the implementation of elevators. (NAHNOO ,2020)

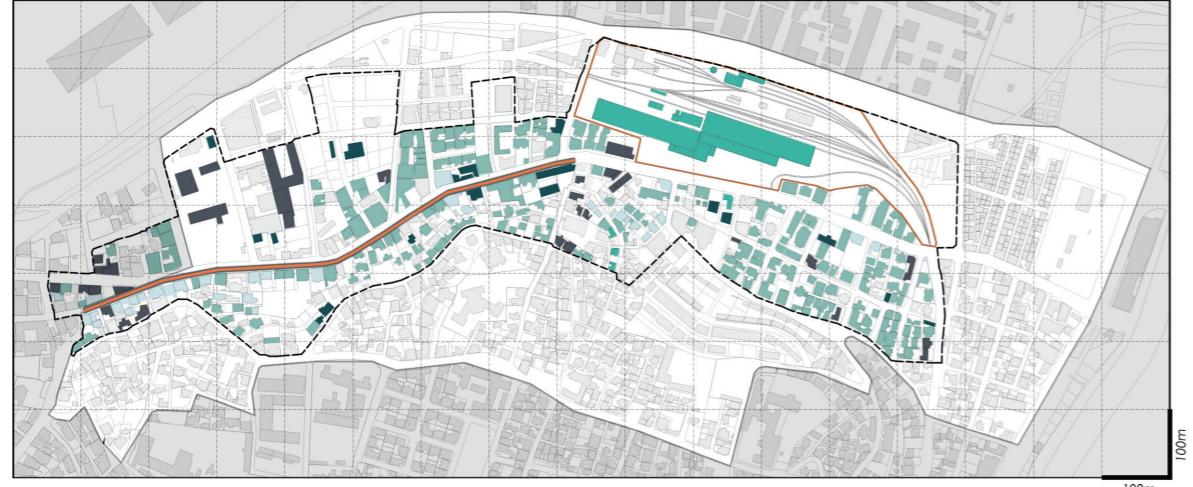


Fig.48 Map showing the distribution of building ages in a selected area of Mar Mikhael
(Author, inspired by NAHNOO, 2020).

LEGEND:

- Mar Mikhael Boundaries
- Studied Area
- Old Train Rails
- Not Surveyed
- Train Station Limits
- Aligned Façades

Date Of Construction

Premandate:	Mandate:	Postmandate:	
Before 1920	1921-1943	1944-1964	1965-2000
			2001-2019

Even though the architectural styles are different, the traditional buildings that line Armenia Street still look very similar to each other. The fronts of the buildings line up along the street edge, and the openings are all the same size.

The repeating rhythm of the buildings adds to the historical feel of this commercial spine where their alignment is still one of the most unique things about Mar Mikhael's older fabric, and it helps keep the streetscape the same even as new buildings go up around it. The Mar Mikhael Train Station, which was built in the early 1900s, also had a big impact on how the neighborhood grew in its early years.

Its presence changed how parcels were divided, how people moved around, and where homes and businesses tended to group together.

In the years that followed, building methods changed as reinforced concrete and standardized plastered façades became more common. Today, more recent developments have brought in a new vocabulary of materials based on industrial systems like concrete frames, aluminum cladding, oversized glazing, prefabricated panels, and high-performance insulation technologies. This change has made a clear visual and material difference with the layers that came before it, and it shows how building practices in Beirut have changed as a whole.

After the Beirut Port explosion on August 4, 2020, many of Mar Mikhael's historic buildings were badly damaged in terms of their structure and materials. Several important groups, including UNESCO, the Italian government, Blue Shield Lebanon, the Beirut Heritage Initiative, and others, worked together to restore damaged buildings, and protect heritage structures. These teams worked on fixing timber roofs, stabilizing stone walls, rebuilding traditional ironwork, and getting back original architectural details whenever they could. For instance, Al Arabiya pointed out that the fight to save Lebanon's damaged heritage has brought together conservation groups from both Lebanon and around the world (Al Arabiya, 2022) which were important not only for protecting the neighborhood's architectural history, but also for protecting Mar Mikhael's unique identity that sets it apart from the rest of Beirut.



Fig.50 Photograph showing the restoration of damaged building.



Fig.49 Photograph showing a Lebanese traditional house after the August 4 Beirut port explosion (ArchDaily, 2025).



Fig.51 Photographs showing the diversity of architectural styles and materials in the Mar Mikhael neighborhood.



3.4.2 Height Distribution and Visual Clutter

Mar Mikhael's cityscape is marked by strong vertical contrasts between its old heritage buildings and its new high-rise developments. The older buildings usually have only two or three floors, which is a sign of a modest, human-scale residential fabric that was shaped by historical building practices and

the way the neighborhood is laid out. Recent real estate projects, on the other hand, have added towers with 15 to 48 floors, like the Skyline project and the Aya tower project. These have completely changed the district's skyline.

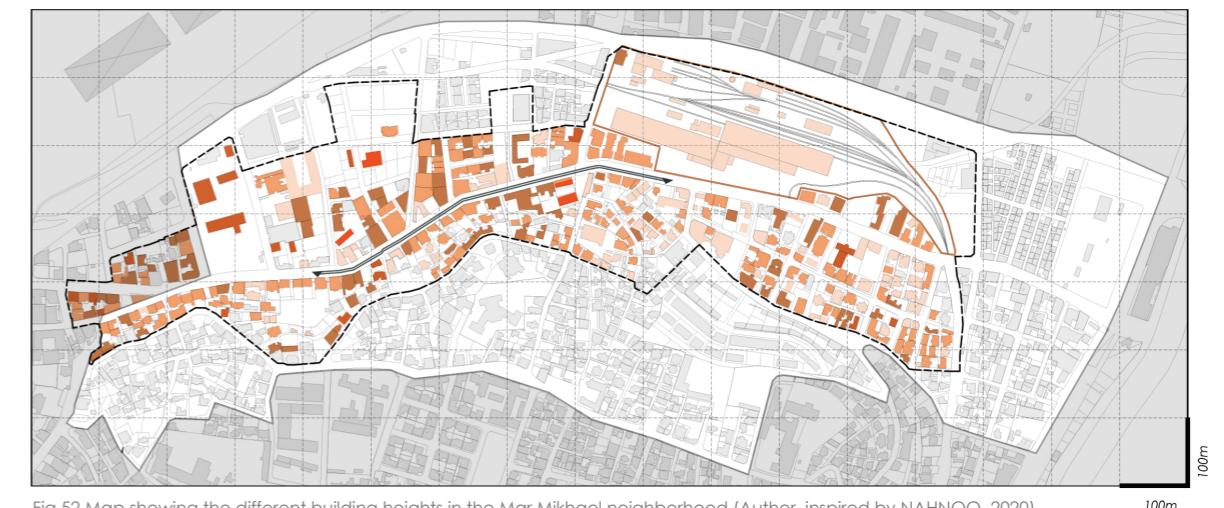
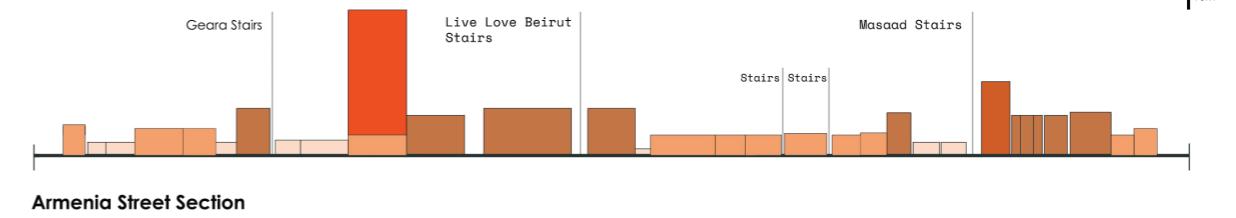


Fig.52 Map showing the different building heights in the Mar Mikhael neighborhood (Author, inspired by NAHNOO ,2020).

LEGEND:

Mar Mikhael Boundaries	Train Station Limits	Number Of Floors
Studied Area	Section	
Old Train Rails		



Armenia Street Section

When you look at the map of building ages next to the map of building heights, you can see a clear pattern: the newest buildings are always the tallest. This is because of recent real estate pressures that have brought in higher-income residents.

This huge difference in height makes the skyline look broken, messes up the historical scale, and makes it hard for the city to stay coherent. It also causes too much shading and puts a lot of stress on the infrastructure in an area that was never meant to handle such vertical growth (NAHNOO, 2020).

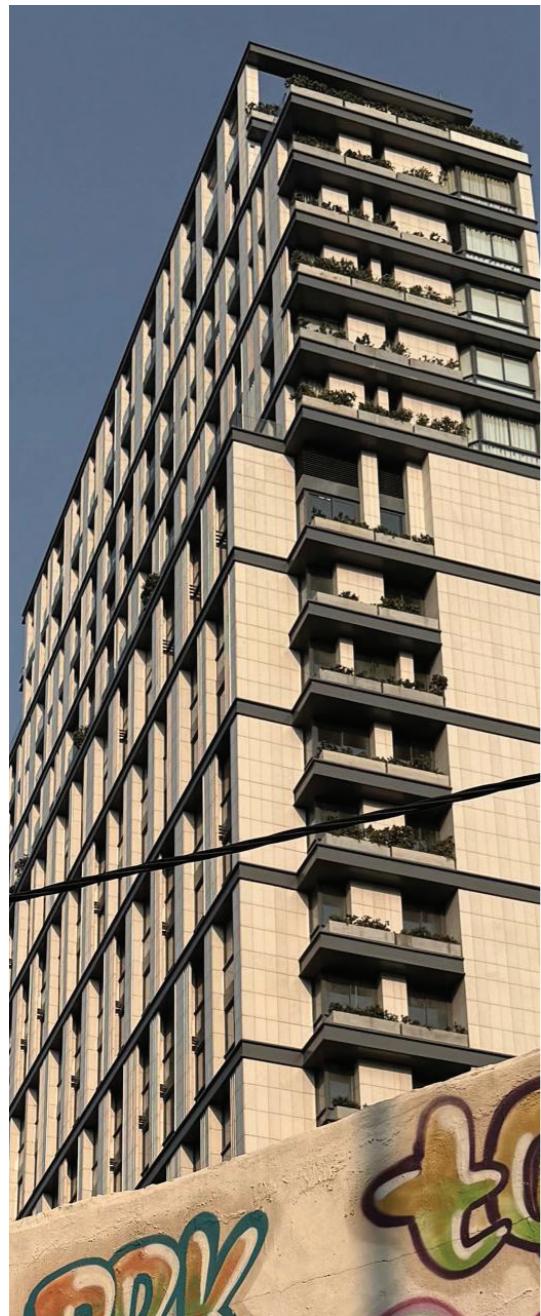
Even as one ascends Mar Mikhael's historic stairways, which rise more than 17 meters, or about the height of 5 to 6 traditional floors, the view of the Mediterranean that one would expect is still blocked by new high-rise towers that block the views of older houses are built at every level.

This creates a subtle form of spatial inequality: the coastline, which used to be visible to everyone in the area, is now mostly only accessible from the upper floors of expensive buildings. In this way, vertical growth not only changes the skyline but also limits the view of the sea to a small group of residents.

Fig.53 Series of photographs illustrating visual clutter along the stairways at different levels, showing that the view toward the sea remains blocked despite the change in elevation .



Fig.54 Photograph showing the height difference between traditional buildings and newer high-rise constructions in Mar Mikhael.



3.4.3 Zoning Maps and Vertical Growth

Mar Mikhael is mostly zoned for homes, but more and more businesses are moving into the ground floors and into new spaces that are being built.

The area is zoned as 2, 3, 4, 6, and 7, which means that high-density construction is allowed with few height limits and few requirements for façade alignment.

These rules do allow for a lot of freedom in how buildings can be built, but they have also made the skyline irregular and fragmented, which is not good for the neighborhood's traditional low-rise style.

The fact that there aren't strict rules about street facing façades makes the architectural cohesion even weaker and puts the area's visual identity at risk. Also, because there are only a few undeveloped plots left, the lack of land has caused real estate prices to rise, which has led to more speculative investment and faster vertical growth (NAHNOO, 2020).

Fig.55 Photograph of a high-rise building in Mar Mikhael.

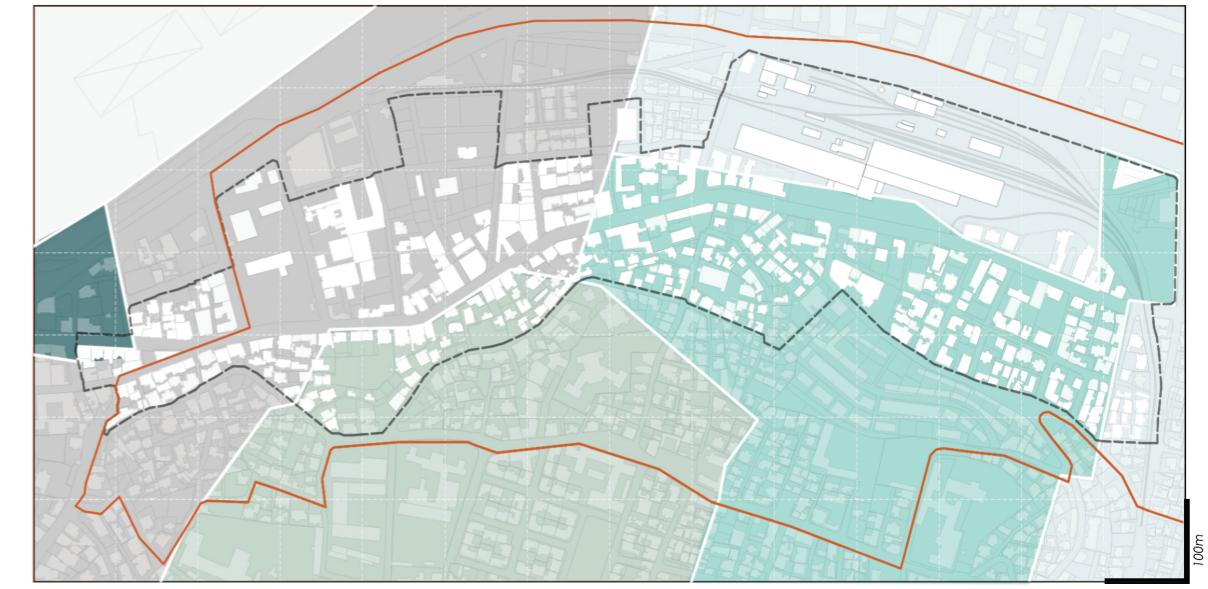


Fig.56 Map and table showing the zoning in Mar Mikhael and its surrounding areas (Author, inspired by NAHNOO ,2020).

LEGEND:

Mar Mikhael Boundaries	Studied Area Before	Buildings	Zone 2	Zone 3	Zone 4	Zone 6	Zone 7	Zone 9
------------------------	---------------------	-----------	--------	--------	--------	--------	--------	--------

Zones	Parcel Subdivision			Construction Parcel			Setbacks		Floor To Area Ratio(FAR)	Total Exploitation Ratio(TER)	Building Height
	min surface	min façade	min depth	min surface	min façade	min depth	Road	Sides			
	250m2	10m	10m	100m2	9m	7m	4.5m	-	70 %	5	-
	300m2	12m	12m	120m2	10m	8m	4.5m	-	60 %	4	-
	300m2	15m	15m	150m2	10m	8m	4.5m	-	50 %	3.5	-
	400m2	15m	15m	200m2	12m	8m	4.5m	-	50 %	2.5	-
	250m2	12m	12m	100m2	9m	7m	4.5m	-	70 %	3	-
	-	-	-	-	-	-	-	-	-	-	CONSTRUCTION IS FORBIDDEN

3.5 Social and Spatial Transformations

3.5.1 Layered Functions

Mar Mikhael's functional map shows a dominance of Residential use, keeping in mind that commercial activities now are taking over most of the ground floors, which influence the changing of the neighborhood daily rhythms. Religious buildings are anchors in this fabric which keeps the community present and connected. In addition, a few hotels and short-term rentals show how the area is becoming a large touristic network (NAHNOO, 2020).

Moreover, the buildings owned by the government, are now the main interest of several organizations: The Italian Agency for Development Cooperation and UN-Habitat are working together to fix the Mar Mikhael Train Station, which has been closed for a long time.



Fig.57 Map of function distribution in Mar Mikhael (Author, inspired by NAHNOO 2020).

LEGEND:

Mar Mikhael Boundaries	Studied Area	Mixed Use	Not Surveyed	Governmental	Office Building
Train Station Limits	Old Train Rails	Residential	Hotel	Religious	Commercial

This project aims to restore the historic building and bring the public spaces back to life, making the station a future cultural and social center with a lot of potential for community-focused redevelopment (ArchDaily, 2025).

Moreover, the Electricité du Liban (EDL) site, closed because of the explosion on August 4, 2020, is one of the last places on Armenia Street where you can see the sea from the ground level. This characteristic gives the site a lot of visual and spatial value.

Ongoing talks and new ideas for how to use the building again, show that it could become a major public asset and a key driver of urban renewal (INSPIRELI Awards, 2025).



Fig.58 Photograph of the EDL site.



Fig.59 Photograph of the Train station site.



3.5.2 Stakeholders and Ownership Dynamics

Stakeholders in Mar Mikhael are a mix of weak public institutions, strong private interests, and an active civil society :

1.Municipality

The Municipality and mokhtars don't have much power, and their absence after the blast made people even more nervous.

2.Religious Actors

The St. Michel Maronite Church is a big land-owner and aid provider whom which coordinating support with NGOs before and after the blast.

3.Political Parties

Kataeb, the Lebanese Forces, and the Free Patriotic Movement all have offices in the area and have an impact on the social life of Beirut. Beirut Madinati once supported a resident committee that tried to solve problems related to nightlife, but then fell apart due to the lack of enough help from institutions.

4.NGOs (Before the Blast)

Save Beirut Heritage, Nahnoo, Public Works, Berrad El Hay, Haven for Artists, and GAIA Heritage were some of the organizations that worked to protect heritage, make maps, and provide social assistance.



Fig.60 Map of ownership in Mar Mikhael (Author, inspired by NAHNOO ,2020).

LEGEND:

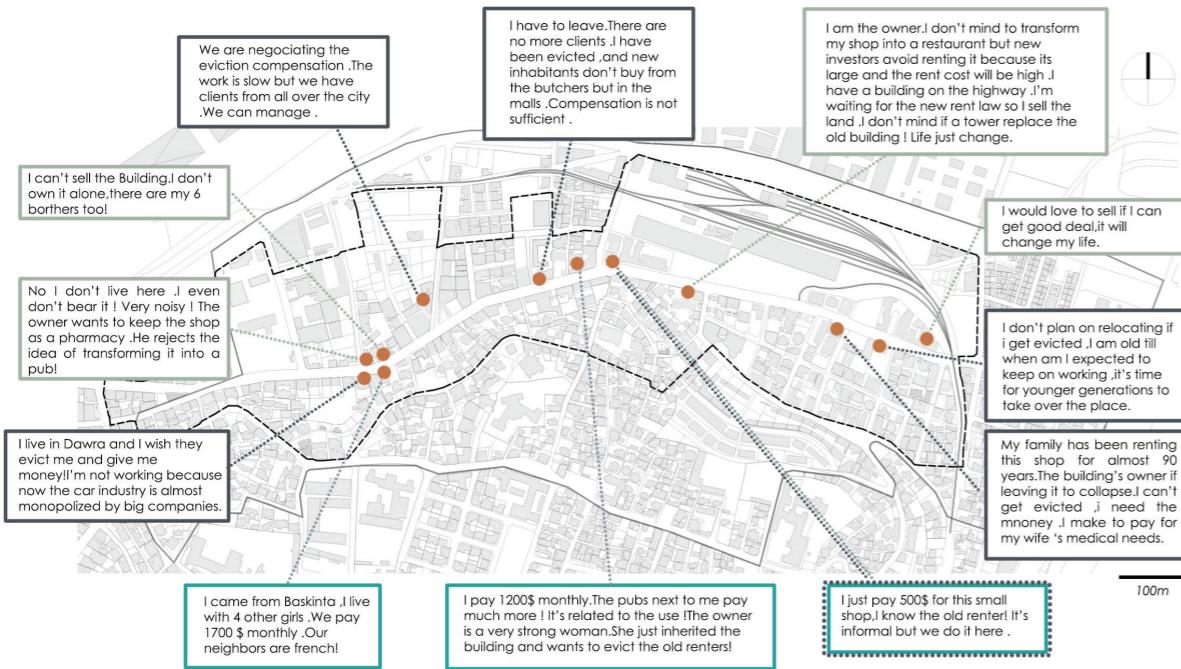
- Mar Mikhael Boundaries
- Studied Area
- ▨ Old Train Rails

- Train Station Limits

- Buildings Status
- Not Surveyed
- Abandoned
- Rented

- Occupied By The Owner
- Emty
- Landmarks

CHAPTER 3 The Neighborhood of Mar Mikhael



5.Landowners

Property structure is shaped by a very high percentage of old-rent tenants. Almost 80% of tenants have old-rent contracts, which makes them very likely to be evicted as land prices go up and landlords avoid repairs (ACTED ,2021b). The rent law of 2014 made this situation even worse.

6.Developers

Since 1990s, real estate developers have become important players ,buying low-rise buildings, evicting residents, and leave many

properties empty while they wait for them to be redeveloped in a profitable way. These practices, have sped up speculation and gentrification (NAHNOO , 2020).

Public authorities also had a hand in it. For instance, the expropriations for the Fouad Boutros Highway left a number of municipal buildings vacant near Salah Labaki Street (ACTED ,2021b) .

"This neighborhood was like a village. That was the real Mar Mikhael."

-Michel Assaad



Fig.62 Michel Assaad and his chihuahua Pepsi, on his terrace where he spends most of his time. (Khoder ,2021)



Fig.63 Michel Assaad House: A Mar Mikhael Native, Born and Raised in the Neighborhood.

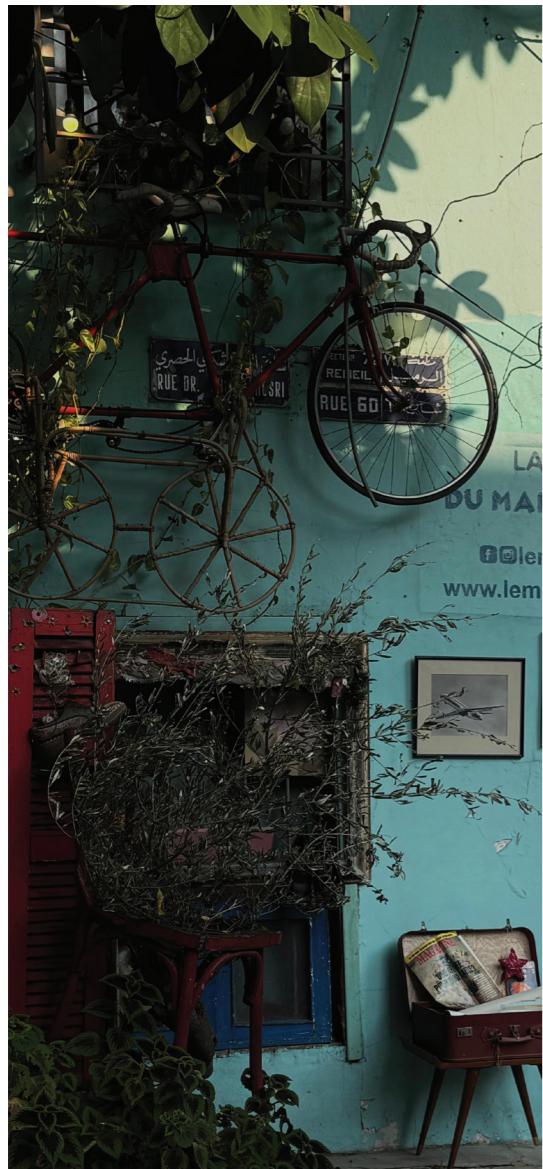


Fig.64 Photograph showing the artistic shopfront in Mar Mikhael.

3.5.3 Gentrification and Urban Change Trajectories

All these dynamics mentioned before, point to a deep and ongoing gentrification process in Beirut.

This eastward shift, moving from Downtown to Monot, Achrafieh, Gemmayzeh, and finally Mar Mikhael, driven by rising land values, speculative development, and shifting commercial economies.

In Mar Mikhael, this process accelerated after 2008 when developers began acquiring buildings, clearing tenants, and waiting for profitable redevelopment opportunities as mentioned before (ACTED, 2021b).

Today, the physical and commercial landscapes are transforming simultaneously. Buildings are changing through renovation, demolition, or conversion, and the shops themselves are evolving from local, affordable services into boutique cafés, luxury concepts, curated retail, and design-oriented businesses.

Urban surfaces also reflect this duality: walls once dominated by graffiti and informal street art now coexist with art exhibitions, galleries, and boutique installations.

This trend reflects rising real-estate pressure and the district's gradual shift toward commercial and tourism-oriented uses, altering both its social composition and the spatial logic of its streets.



Fig.65 Map showing the urban change trajectories from Downtown to Mar Mikhael after the beginning of the urban redevelopment in 1990.

LEGEND:

- Beirut districts
- ||||| Sprawling of real estate investment
- ===== Displacement of creatives

3.5.4 Mar Mikhael After Dark: Between Attraction and Tension

At night, within Mar Mikhael streets a major transformation occurs with its bars, cafés, and cultural venues drawing large numbers of visitors. However, while this nightlife economy boosts commercial activity, it also creates growing tension for residents who face noise, parking pressure, and overcrowded streets.

On the other hand the rise of boutique cafés and high-end retail strengthens the area's economic visibility but weakens its residential stability, as local shops struggle to survive and essential daily services decline. Increasingly, the neighborhood functions as a meeting point for outsiders more than for its inhabitants, leading to displacement pressures, disrupted social networks, and a growing sense of loss among long-term residents.



Fig.66 Pub Scene on a Busy Nightlife Street in Mar Mikhael .(Eid , 2024)





3.6 Green Space Dynamics in Mar Mikhael

It is evident that there is a variety of small green spaces in Mar Mikhael, some of them well-maintained, and others are not taken care of or properly incorporated in the city environment. These places are different in their accessibility: some of them are publicly available, whereas others are private or semi-private and, therefore, cannot serve the daily community activities.

In the absence of large communal parks, these small parks contribute to their best level, the best they can, to provide people with some relief out of the congested city.

Many empty lots are also covered in asphalt, which absorbs heat and makes the area around them warmer, leading to increasing the urban heat island, uses more energy, and makes people less comfortable, especially when it's hot outside.

In this situation, even small amounts of plants are very important for making the microclimate better and making the area more livable affecting neighborhoods to be even more resilient to environmental changes if it replaced asphalted surfaces with greener, more permeable ones.

3.6.1 Major Green Areas

Some of the neighborhood's green spaces accessible for people are in public, private or institutionally controlled areas:

- William Hawi Garden is another landscaped area nearby that offers shade, seating, and community activities, but it is outside the immediate dense core.

- Laziza Park, which was built on the site of the old Laziza Brewery, has recently become an informal community green space maintained by local initiatives but not very well equipped. It is an accessible open area (ACTED, 2021b).

- Jesuite Garden, a well-known green space, is an important place for people who live on the upper edges of Mar Mikhael to relax.

For instance, the above mentioned green spaces are targeted for public use although some of them are controlled by institutions, however the following is privately owned:

- Tobagi Garden, an old private garden, shows what the neighborhood used to be like when it was mostly residential. It is also one of the few green courtyards that are still part of the built environment (El Chamaa, 2021).

There are also green areas that aren't open to the public yet but are public owned, in addition to these:

- The Mar Mikhael Train Station has a big green space, but it's still fenced off, closed, and not being used, even though it has a lot of potential.

- A military-controlled green zone between Mar Mikhael and Achrafieh is also a big landscape area, but it's off-limits.

These areas together show how rare and valuable green spaces are in Mar Mikhael. This shows that future planning and revitalization efforts need to include more open spaces that are easy to get to and run by the public.



Fig.67 Photographs showing minor green spots in Mar Mikhael, located along the streets, on residential balconies, and between ground-floor commercial shops.

3.6.2 Minor Green Spots

In Mar Mikhael, even though there isn't much open land, residents, shop owners, and the city government have all made small green changes to the neighborhood. These small green areas can be found on streets, in courtyards, and near building entrances. They provide a little bit of ecological and visual relief in a crowded city.

People often make pocket gardens on the ground level in private or semi-public spaces like setbacks and internal courtyards.

Shop owners, put planters, pots, and small trees along pedestrian paths to make the front of their businesses look better and make the streets look less harsh. The city helps by planting trees along the street in certain places, especially where the sidewalks are wide enough to let the roots grow and people walk by.

The municipality also planted some trees along the sidewalk of Armenia street to reduce heat by providing shading while the people are walking.

Because there isn't much horizontal space, plants often grow vertically on building façades : Climbing plants, façade planters, and vertical gardens help keep dust and heat down. Some newer buildings have green roofs or rooftop gardens, which help keep the microclimate stable and increase biodiversity on a small scale.

Even though these changes are small and spread out, they show that residents, businesses, and public authorities are all working together to bring nature into a neighborhood where there aren't many open green spaces.



Fig.68 Map showing green areas and parking lots in Mar Mikhael .(Author, inspired by NAHNOO 2020)

LEGEND:

Mar Mikhael	Train Station Limits	Old Train Rails	Green Areas
Studied Area Before	Buildings	Parking Lots	Beirut River



Mar Mikhael's growth is a result of Beirut's complex history which has been shaped by railroads, industrial growth, war, and recent waves of gentrification. Its dense urban fabric, narrow streets, stair networks, and mixed architectural layers make it a neighborhood with a lot of history and character, but it's getting more and more strained by speculative development and social displacement making everyday stresses even worse. At the same time, important places like the train station, the EDL building, historic stairways, and a few public and private projects show a lot of promise for cultural, social, and environmental renewal.

Even though there aren't many green spaces that are easy to get to, and the environment is limited, the community is adapting to change through collective efforts and informal practices. In general, Mar Mikhael is at a turning point where it is important to protect its identity while also working toward futures that are more open, connected, and long-lasting.

CHAPTER 4

The Train Station as an Urban Landmark

4.1 Site Context and Accessibility

4.2 Environmental and Ground Conditions

4.2.1 Acoustic Environment

4.2.2 Softscape

4.2.3 Hardscape

4.3 Architectural Layers



4.1 Site Context and Accessibility

The station is connected to the city through two main vehicular routes: Charles Helou Highway and Armenia Street. The site has two entry points one of which is directly from Armenia Street and another from a smaller secondary road linking the highway to Armenia Street. This dual access provides both direct and more discreet approaches to the station grounds.



Fig.69 Photographs showing the two access points to the train station, from both the main road and the secondary road.

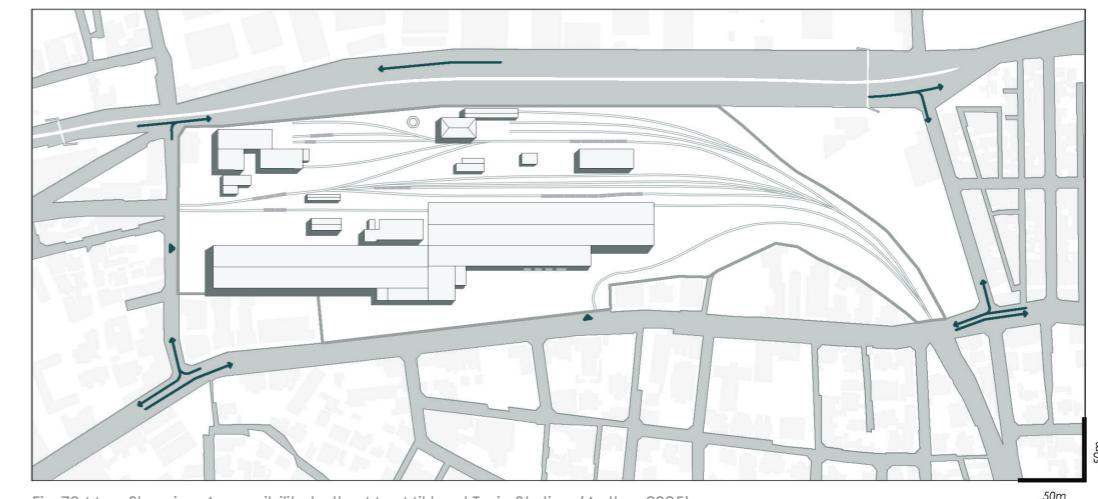


Fig.70 Map Showing Accessibility to the Mar Mikhael Train Station.(Author,2025)

LEGEND:

Train Station Buildings Roads

→ Vehicular Access To Site

► Entrance To Site

4.2 Environmental and Ground Conditions

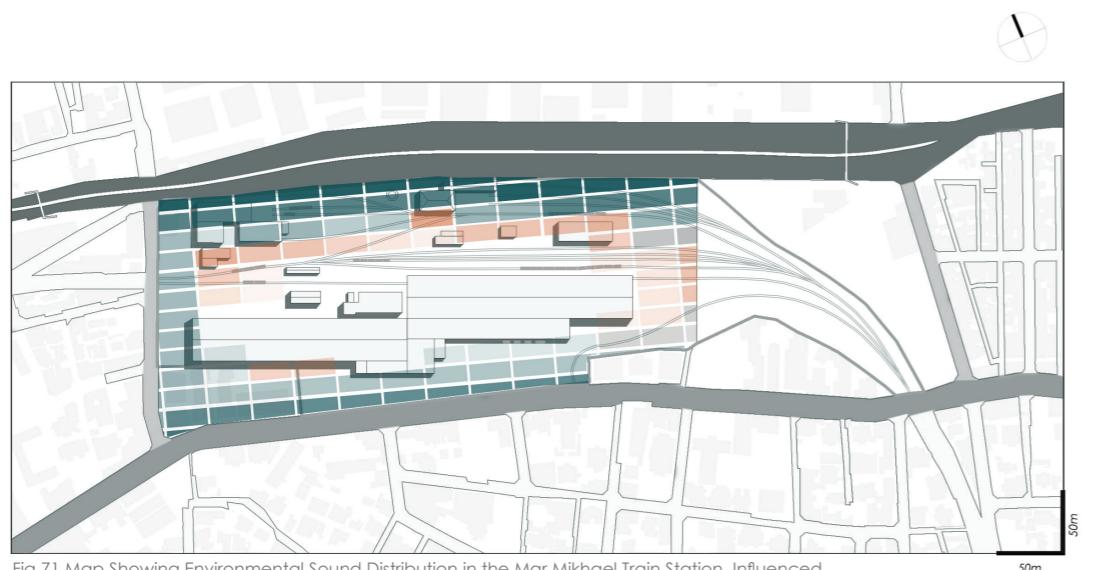
The environmental and ground conditions of the Mar Mikhael train station reveal a layered landscape shaped by its history and partial abandonment. Differences in sound, vegetation, and surface materials create a distinct atmosphere within the dense urban context.

4.2.1 Acoustic Environment

The Mar Mikhael station is characterized by a highly acoustic landscape. Along the northern edge, Charles Helou Highway generates intense and continuous traffic noise, while Armenia

Street contributes a moderate sound level with daily vehicular flow and commercial activity. In contrast, the secondary access road remains comparatively quiet, offering a softer and more gradual transition into the site.

However central area of the station, protected by a dense canopy of mature trees, the soundscape transforms markedly. Urban noise dissipates and is replaced by birdsong and natural ambient sounds, creating an unexpected sense of calm and detachment from the surrounding city.



4.2.2 Softscape

The site hosts a diverse range of vegetation including fruit-bearing species such as Olive Trees, Lemon Trees, and Rhaphiolepis bibas, as well as non-fruiting trees like eucalyptus, *Ficus benjamina*, and pine.

Self-seeding plants, including chamomile, poppies, and various wild herbs, spread spontaneously across several areas, reflecting species that are naturally resilient and capable of thriving in the site's current conditions.

These adaptive plants illustrate the ecological robustness of the landscape, and the catalogue of species observed on site provides a valuable reference for understanding the station's existing natural environment.

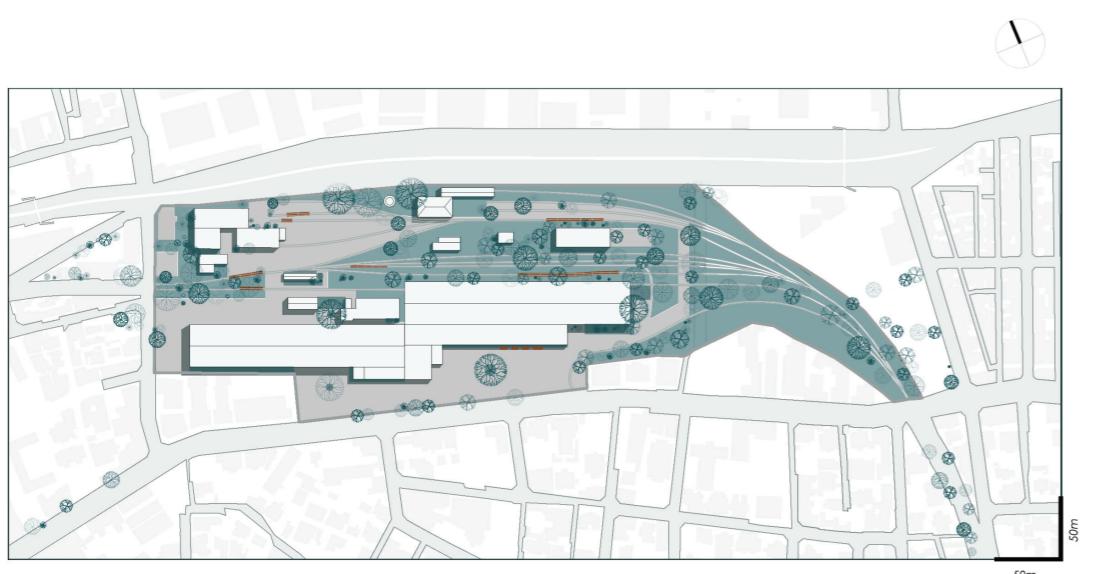


Fig.72 Landscape of the Mar Mikhael Train Station: Map Showing Softscape and Hardscape.

LEGEND:

Train Station Buildings Locomotive Roads Softscape Hardscape

4.2.3 Hardscape

The ground conditions encompass a variety of permeable and impermeable surfaces. For instance, permeable areas consist mainly of aged asphalt and gravel, while other zones feature more solid paving materials in varying colors and textures.

The remnants of the former railway tracks remain visible throughout the site but often partially covered with gravel or glass panels.

Additionally, the presence of corten steel elements introduces a contemporary industrial texture that contrasts with the surrounding natural features.

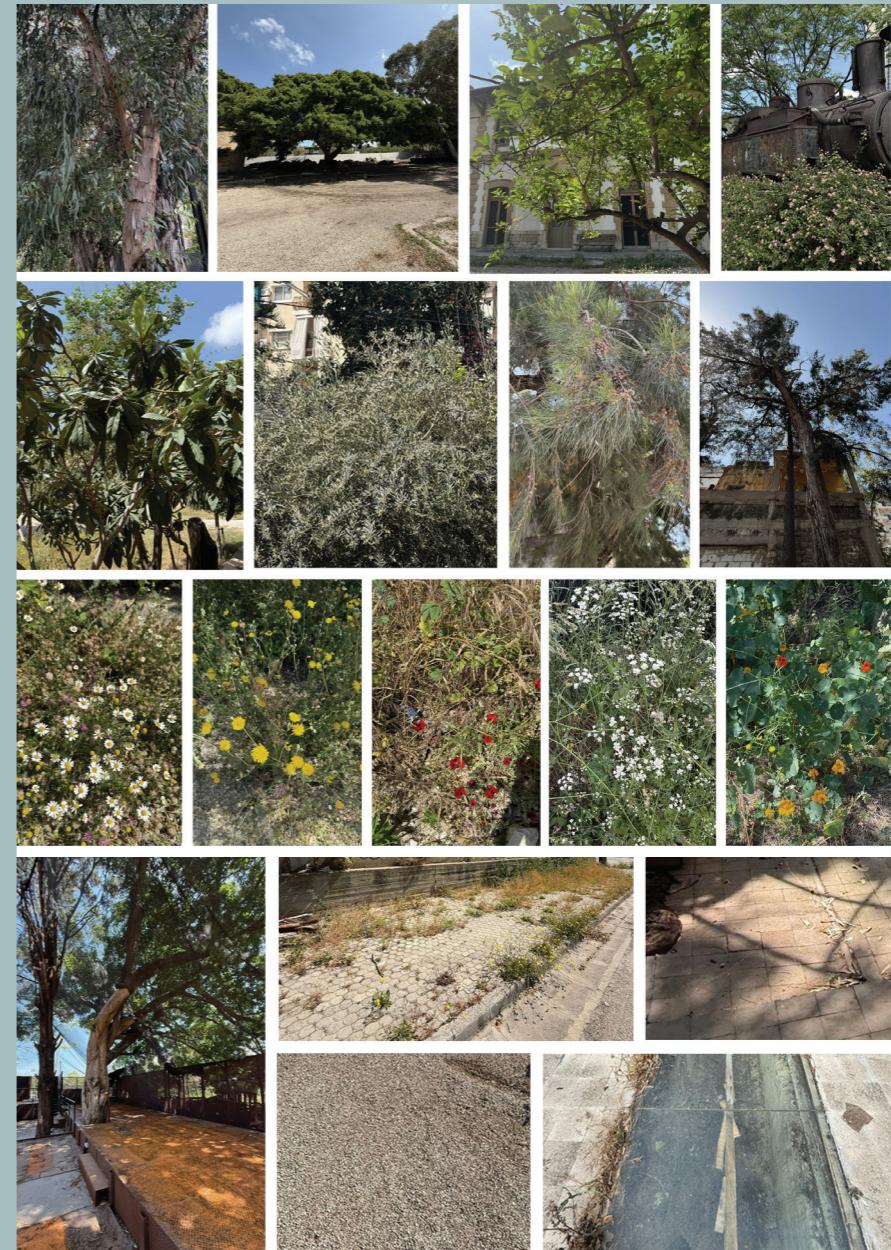


Fig.73 Catalogue of Landscape Components (Soft & Hard) in the Mar Mikhael Train Station .



4.3 Architectural Layers

The Mar Mikhael train station has a layered architectural design that was built in different stages. The oldest buildings were built before the Mandate period whom were made of stone with wooden parts and red clay tiled roofs, and some of them are clearly falling apart.

In addition to these, there is a later concrete building with a flat roof and a white plaster coating.

There are also large industrial hangars made with steel frames and corrugated metal roofs.

Some old locomotives are still there too , which adds to the station's industrial history and identity.



Fig.75 Photograph of Mar Mikhael train station .

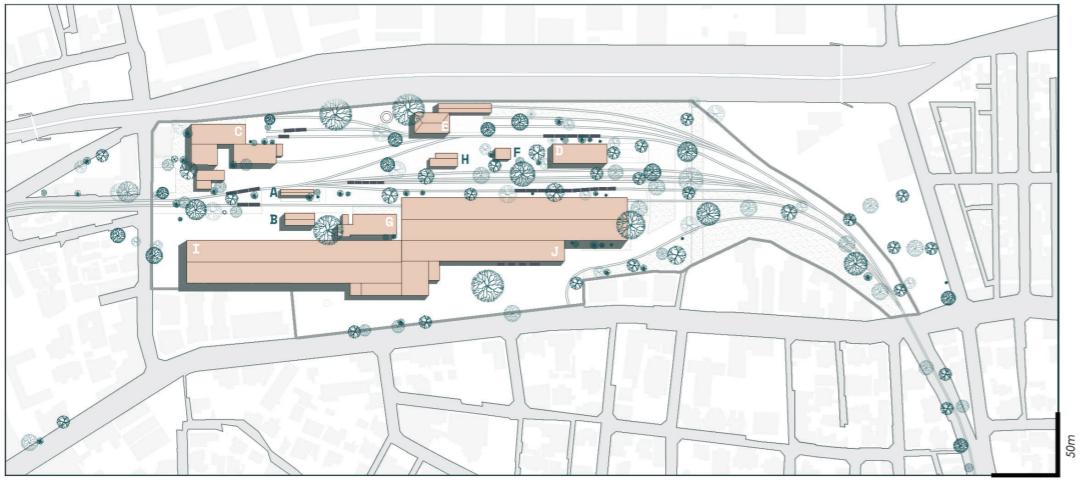


Fig.74 Map showing Building Footprints within the Mar Mikhael Train Station Area .

LEGEND:

□ Train Station	■ Buildings	■ Train Station Buildings	■ Roads	■ Locomotive
-----------------	-------------	---------------------------	---------	--------------

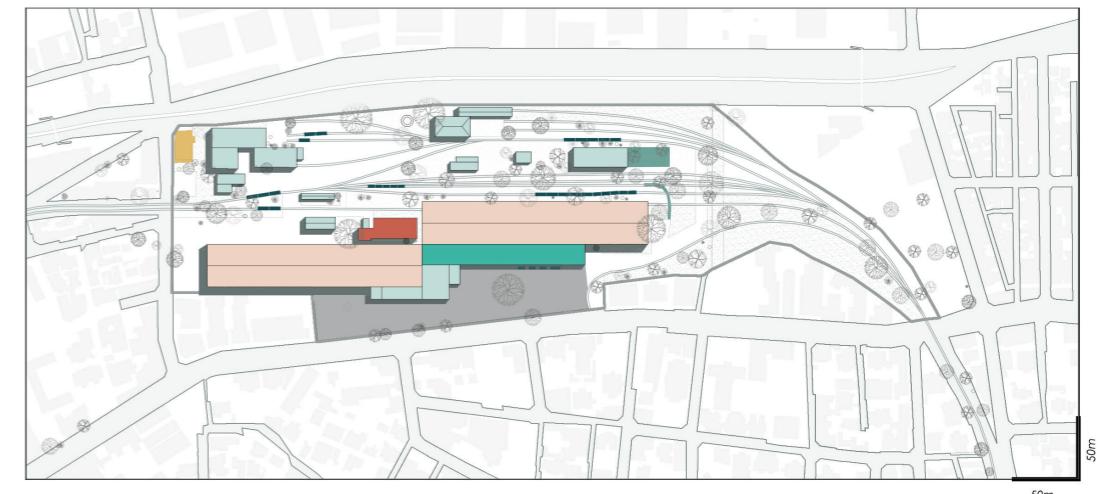


Fig.76 Map showing the Current Functions of the Mar Mikhael Train Station.

LEGEND:

□ Train Station	■ Buildings	■ Training bus area	■ Storage area	■ Ogero telecom	■ Emty
■ Locomotive and old	■ Roads	■ Administrative	■ Light renovation for a	■ Bus parking and garage	
Rails			previous pub		

The railway is no longer in use, but the site is still used for a variety of purposes on a regular basis such as parking for public buses, a designated training area for bus drivers, and it is used for administrative tasks. The station also sometimes hosts private cultural and artistic events, which shows that it could be used more by the community and for different purposes in the future.



Fig.77 Parking for public buses in the Train Station.





E



G



F



H







The analysis shows that the Mar Mikhael train station is not a vacuum left behind, but it is a strategic city resource that has significant transformative potential. Its grandiose size, the key position in the center of neighborhood, and infrequent openness are in stark contrast with crowded and fragmented environment. The following characteristics are what reflect the ability of the station to act as a harbinger of spatial continuity, ecological enhancement, and social reconnectivity.

This chapter brings out the gaps and opportunities by exposing how this site is being formed, utilized, and bounded in the present day to establish the future role of the site. The train station appears as an area that can take over new communal uses, reestablishing broken city connections, and make a neighborhood more inclusive and resilient.

This knowledge forms the basis of the following chapter which is dedicated to the proposal of specific interventions urban, architectural, and landscape measures which are based on the latent potential of the station to revitalize the connectivity, enhance community life, and help the whole of Mar Mikhael to revitalize.

CHAPTER 5

Reconnecting the Urban Fabric: Proposed Interventions

5.1 Design Principles

5.2 Potential Areas for Urban Interventions

5.3 Inspiration Projects

5.4 Urban proposed strategy

5.4.1 Urban Guidelines

5.4.2 Urban Interventions

5.1 Design Principles

The proposed urban strategy for Mar Mikhael is based on a set of design principles that acts directly on the neighborhood's fragmented urban fabric, socio-spatial vulnerabilities, and its rich cultural identity. These principles act as the conceptual foundation which will guide all interventions while ensuring that the project goes beyond physical improvements to claim social and environmental regeneration, as well as urban resilience.

These principles are :

Connection: is at the heart of the strategy. The barrier effect, of the Charles Helou Highway, has been long disrupting the urban fabric of the Mar Mikhael; the major infrastructure constraints that have negatively affected the street are: fragmentation of streets, inaccessible parcels and street barrier. Therefore, the enhancement of relations between streets, green areas, heritage locations, and the neighborhoods, which the district is a part of, becomes crucial to reenact the day-to-day life of the area.

Inclusivity and Collectivity: The intervention is focused on locations that are open to all residents irrespective of their age, background, and socio-economic status, which is a Mar Mikhael tradition of coexistence. To that, Public spaces are conceptualized as shared areas , open, safe, and adaptable.

Ecological Regeneration: the purpose of this is to abate the heat island effect, create more shade and provide biodiversity by introducing continuous green corridors and permeable surfaces. In the strategy, vegetation is incorporated as a functioning environmental infrastructure rather than a decoration.

Memory and Identity: Design interventions based on heritage buildings, the train station and shared memories constructed based on the civil war, the explosion in 2020, and daily life. This project safeguards these layers and reuses them as robust points towards the social and cultural endeavors.

Human-Scale Mobility: Diluting the dominance of cars and rebalancing the mobility by relegating pedestrians and bicycles with safe crossings and traffic control.

Finally, urban resilience enhances the resilience of the neighborhood to recover and transform as well as the capacity of the intervention to adapt to future uncertainties, be it social, environmental or economic drainage.

The proposed urban design strategy is based on these concepts and allows Mar Mikhael to re-connect with its physical, social, and symbolic environment.

5.2 Potential Areas for Urban Interventions

A few sites within the Mar Mikhael area demonstrate ,a high potential of urban interventions because of their strategic location, lack of usage and their ability to enhance the ecological and foot access.

One of the opportunities is the **EDL Ground** since it is the only area in the neighborhood where one can have a direct perspective view into the sea. The fact that it is empty presently gives it the opportunity to be a shared space that reunites Mar Mikhael visually and physically with the waterfront.

In the **Fouad Boutros expropriation corridor**, there are a lot of vacant parcels and traditional houses as well as parking lots , which were initially obtained to build the highway, which was never built, and which can now be converted into a green spine.

The threat of the highway project was also on **Tobagi Garden**, which can be incorporated into this green corpus and strengthened as a green node of a neighborhood.

Laziza park is there but is ill equipped and is surrounded with crucial steps. Its enhancement would enhance social use and ecological continuity.

William Hawi Garden, which is in a better state, can be used as a stable anchor of the green network of the district.

The **Mar Mikhael Train Station** that has a big closed area with an industrial background is the most relevant area of intervention. It can be transformed into an ecological, cultural, and mobility crossroads of the center of the neighborhood.

Smaller and still vital opportunities are the **staircases** at Mar Mikhael which some of them , like the Stair facing EDL,are in bad condition and can be refurbished into vertical links and social micro-spaces.

Another area, where the improvement can be made to enhance relationships with Karantina and promote the recently introduced public bus network, are **pedestrian bridges** across the Charles Helou Highway, and some **roundabouts** in Armenia street and in some secondary roads .

The **Armenia street** could be a pedestrian-friendly place by planting trees all time, using solar lighting, permeable paving, wider sidewalks, etc. The **secondary network** of streets may make the connectivity even more solid by linking every potential location to one convenient and convenient, climate-friendly system.

Moreover, there are numerous privately owned **parking lots**, which can be considered as another possible location of the urban master plan implementation. Consequently, the existing spaces that are currently concrete and contribute to the escalation of the heat-island effect, can be reformed to possess permeable surfaces, shade, and plants. This would assist in accomplishing greater objectives in the environment and the cities but only when the landowners will be willing to allow it to occur.

The opportunities to enhance the integration of Mar Mikhael into the further urban context may also be presented by surrounding strategic locations that are publicly owned.

The Jesuit Park in Achrafieh, Karantina Park, and the empty lot with the train station on the other side of the Charles Helou Highway adjacent to the port can serve as the extensions of the growing ecological and pedestrian network starting at Mar Mikhael and reinforcing the continuity both in the neighborhood and the city levels.



Fig.78 Photograph showing a street closed where the railway once passed .



Fig.79 Photograph of one of the bridges connecting Mar Mikhael to Karantina.



Fig.80 Photograph of the staircase facing EDL shows damage and lacks proper maintenance.



Fig.81Photograph of a small roundabout with no greenery, surrounded by unused spaces and oversized road infrastructure.

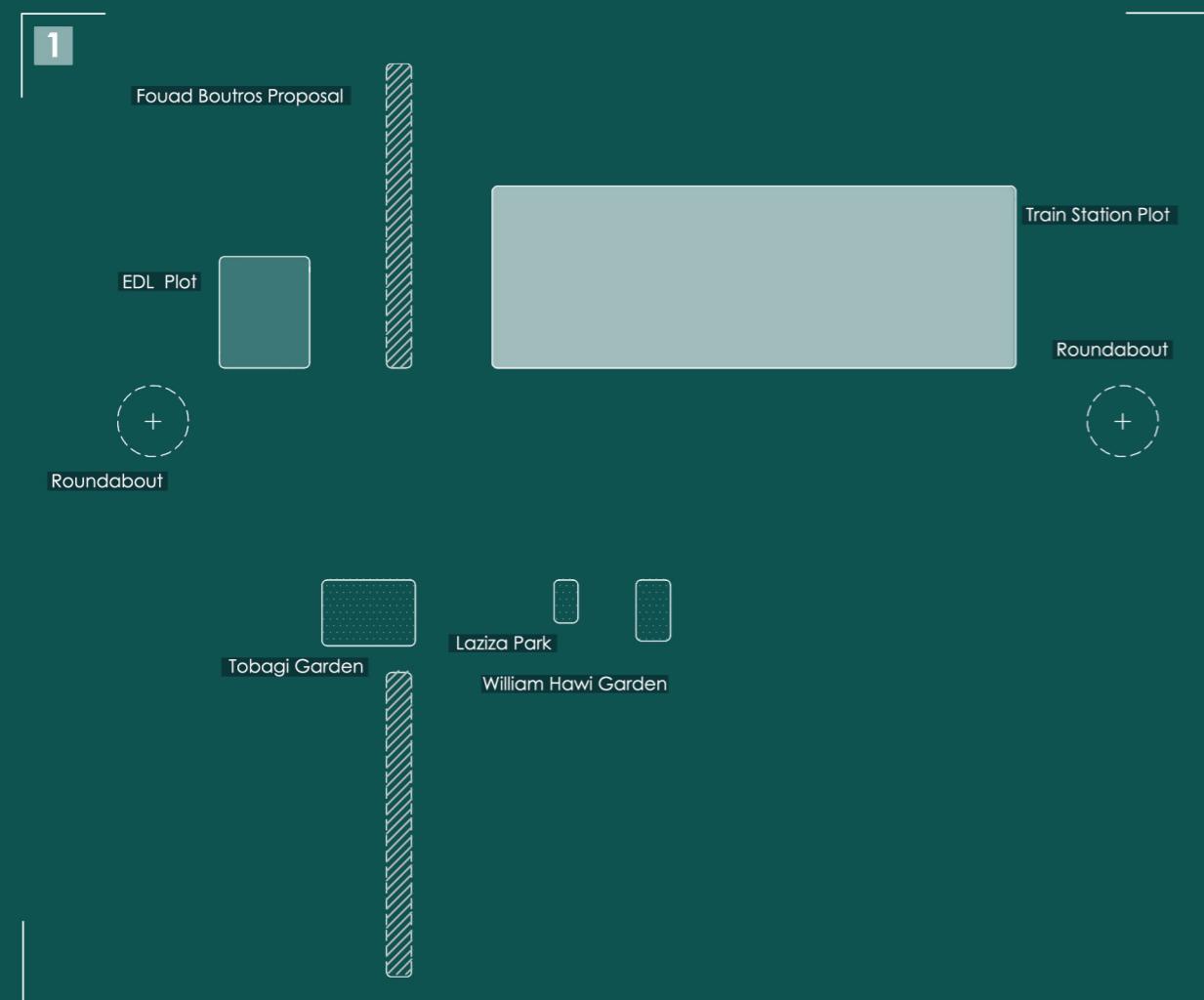


Fig.82 Existing Fragmentation of Key Opportunity Sites.

LEGEND:**Key Opportunity Sites :**

Municipal Property plot
Green park

Fouad Boutros proposal
Roundabout

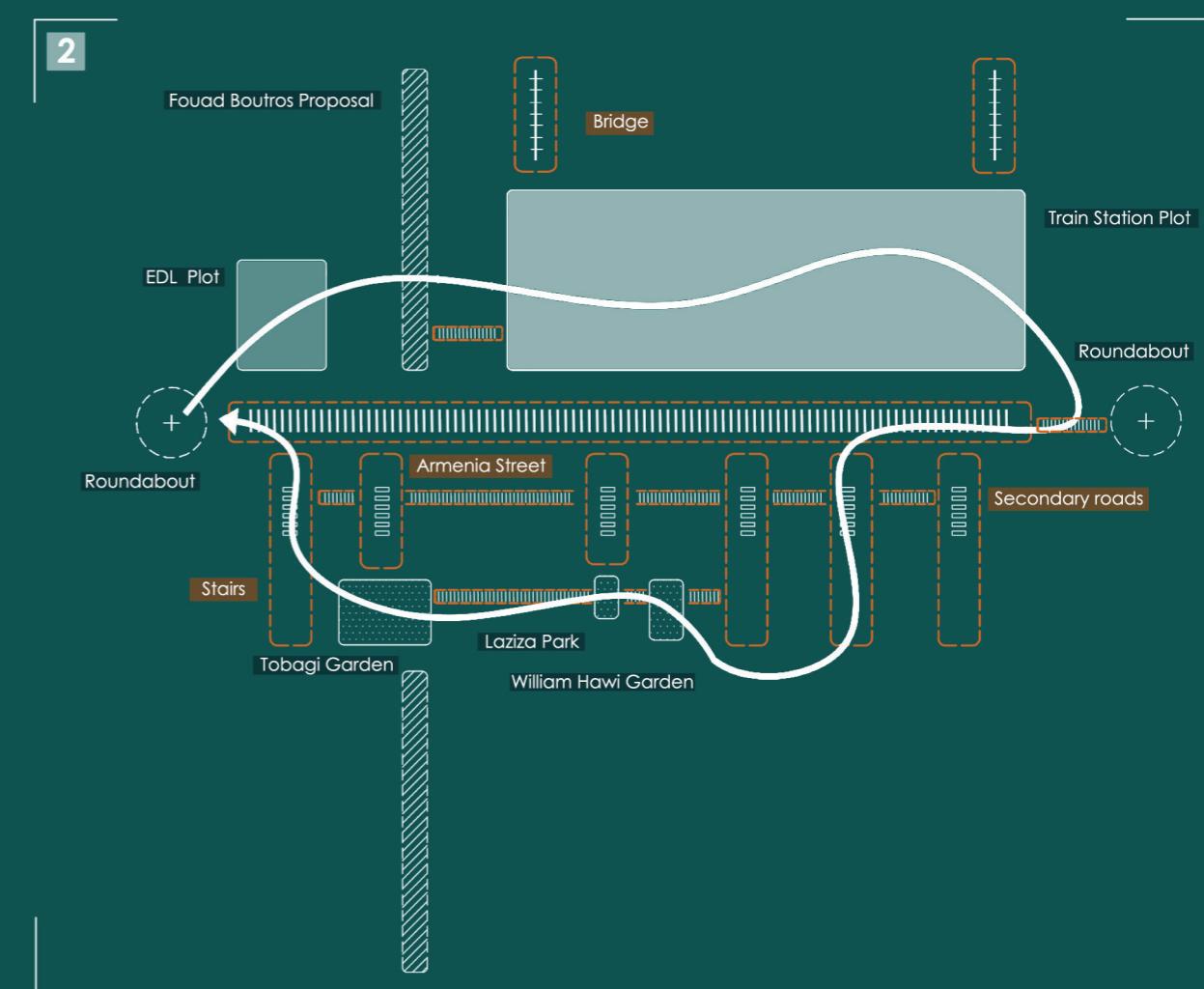


Fig.83 Proposed Connectivity Between Key Opportunity Sites.

LEGEND:**Urban connectors:**

||||| Road
+++ Bridge
==== Stairs
~~~~ Connectivity Link

### 5.3 Inspiration Projects

The suggested interventions in Mar Mikhael are grounded on international and local precedents that can solve issues related to similar challenges of the neighborhood, such as discontinuous urban fabrics, deserted infrastructures, industrial history, steep topographies, and the necessity of new ecological and cultural urban spaces.

The projects outlined below provide approaches and spatial planning that inform the creation of an integrated but inclusive and resilient urban environment:

#### 1- Superkilen

Location: Copenhagen, Denmark

Area: Nørrebro District

Architects: Topotek 1, BIG Architects

Landscape: Superflex

Date: 2012

Superkilen is a project that revitalized a socially diverse and fragmented neighborhood by creating a linear public park that merges cultural identity with mobility and landscape design. As a result, its approach to transforming everyday urban fabric into public spaces offers insights for reimagining Armenia Street and other pedestrian routes in Mar Mikhael as collective spaces. (Topotek 1, BIG, and Superflex, 2012)



Fig.85 Stavros Niarchos Foundation Cultural Center .

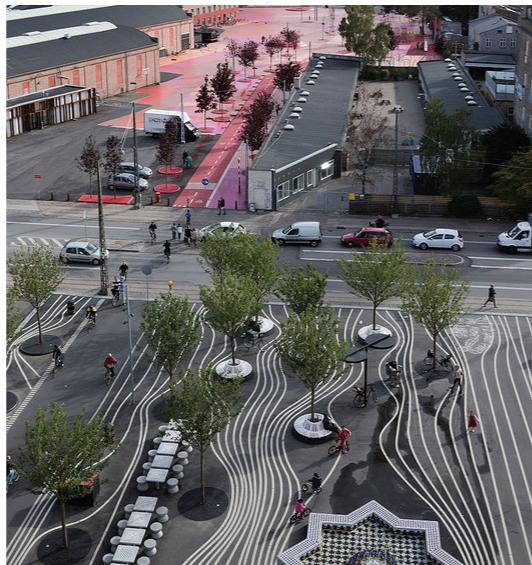


Fig.84 Superkilen project .(Topotek 1, BIG, and Superflex ,2012)

#### 2- Stavros Niarchos Foundation Cultural Center (SNFCC)

Location: Athens, Greece

Area: Kallithea area

Architect: Renzo Piano Building Workshop

Date: 2016

Knowing that SNFCC was built on a former industrial and parking site disconnected from the sea, this project resolved this problem by introducing a vast public park, solar-powered shading structures, and elevated pedestrian paths that reconnect the city to the waterfront. This strategy resembles Mar Mikhael's conditions, especially with the EDL ground and the train station, which also suffer from disconnection and underuse. (Renzo Piano Building Workshop ,2016)

#### 3- The High Line

Location: New York City, USA

Architects: James Corner Field Operations, Diller Scofidio + Renfro

Date: 2009 (Phase 1)

The High Line transformed an abandoned elevated railway into a linear park that preserves industrial memory while introducing vegetation while involving cultural activities and pedestrian continuity.

This project is especially relevant to the transformation of the Mar Mikhael Train Station since it preserves the tracks, platforms, and industrial structures which can be reinterpreted as cultural and ecological assets rather than demolished. (Diller Scofidio + Renfro ,2025)

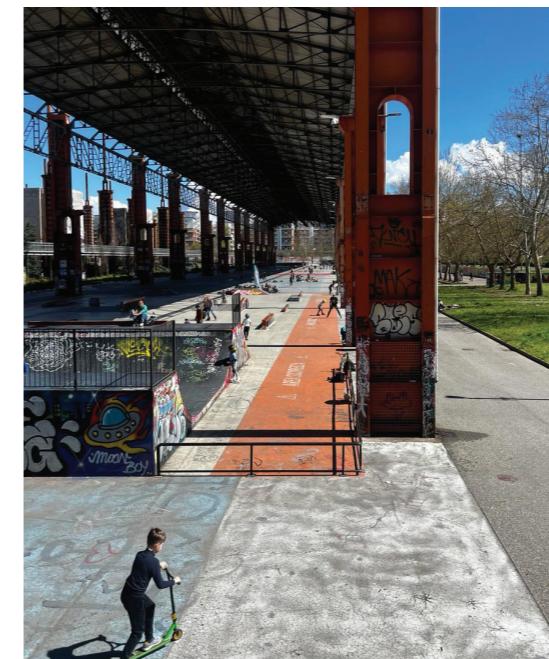


Fig.86 Parco Dora project .

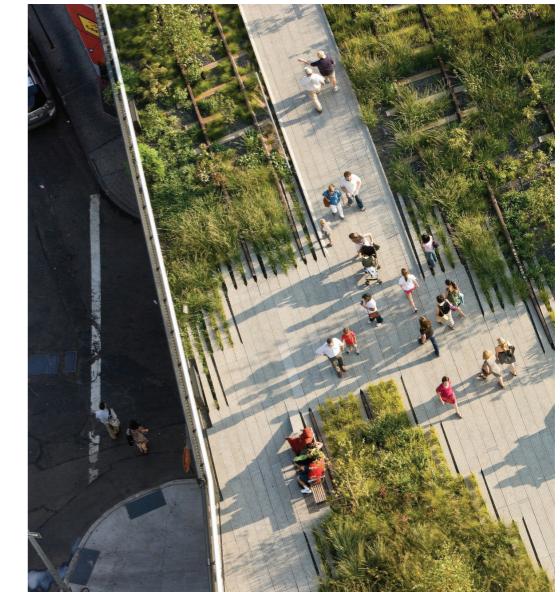


Fig.87 Highline project .(Diller Scofidio + Renfro ,2025)

#### 4- Parco Dora

Location: Turin, Italy

Architects: Latz + Partner

Date: 2012

Parco Dora is a reused industrial space where steel building structures and old machinery are preserved, while adding vegetation, and open space environment for people to come and socialize together in the green public park .

The combination of the aging industrial infrastructure and the new ecological infrastructure is an excellent example of how to transform the train station into a cultural park with its foundation on the basis of memory and identity. (Latz + Partner,2025)

### 5-Escadas do Monte dos Judeus

Location: Porto, Portugal

Area: Monte dos Judeus, Porto

Architects: Pablo Pita Architects

Date: 2020

This project rehabilitated a steep, deteriorated urban staircase by improving accessibility, adding lighting, vegetation, and seating, and enhancing safety.

It demonstrates how stairs can become meaningful public connectors, an essential lesson for Mar Mikhael's numerous staircases, which are critical to its topography but often neglected. (depA architects, 2025)



Fig.88 Escadas do Monte dos Judeus Project .  
(depA architects, 2025)

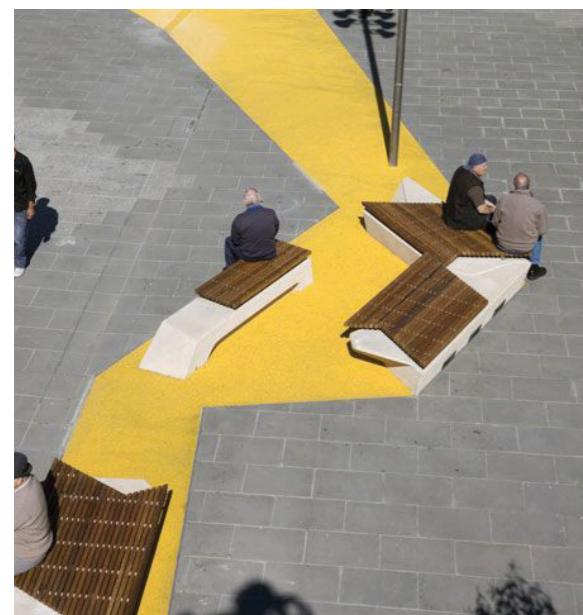


Fig.89 Urban Furniture and Micro-Interventions.  
(Mirabella 2025)

### 6-Urban Furniture and Micro-Interventions

The modern urban micro-interventions demonstrate how minor design can contribute to the process of improving the life of people and their identity in a little way: Using mobile benches, permeable pavements, shaded seats, solar-powered lights, bike-parking units, and plant-growing pergolas.

Painted city features such as colorful stair murals and other artistic crosswalks, painted asphalt patterns, wayfinding graphics, and identity-based ground art depict how simple and inexpensive it is to transform otherwise miserable streets and stairs into vibrant publicly accessible spaces.

These strategies provide inspiration to the secondary roads, stair instances, parking area and pocket plazas in Mar Mikhael where minor artistic gestures can be used to add orientation, safety, and neighbourhood identity.

### 5.4 Urban proposed strategy

#### 5.4.1 Urban Guidelines

The following urban guidelines list the most important steps that need to be taken to bring Mar Mikhael's broken fabric back together and make the neighborhood more accessible, welcoming, and long-lasting:

- Make it easier for people to walk by widening sidewalks, slowing down traffic, fixing stairs, making highway crossings better, and adding bike paths and bus stops near the bridges on Charles Helou Highway.
- Create a continuous ecological corridor supported by native shade trees, permeable surfaces, rain gardens, and the greening .
- Make key nodes more active by turning the train station into a public hub, adding small plazas, shaded furniture, and better lighting at night.
- Keep important buildings, add industrial and railway elements to new designs, and paint stairs and add artistic ground elements to make the area more interesting.
- Add more shade, replace asphalt that absorbs heat with materials that let water through, improve the microclimate with groups of plants, and use solar-powered lights.
- Make sure that everyone can get to all public spaces, streets, and stairs by making them safe and easy to use for people of all ages and abilities. This includes adding better ramps, tactile paving, resting areas, safe crossings, and barrier-free circulation.
- Use phased interventions, work with private parking owners to make long-lasting sustainable improvements, use regulatory incentives, get the community involved, and try out temporary pilot projects.

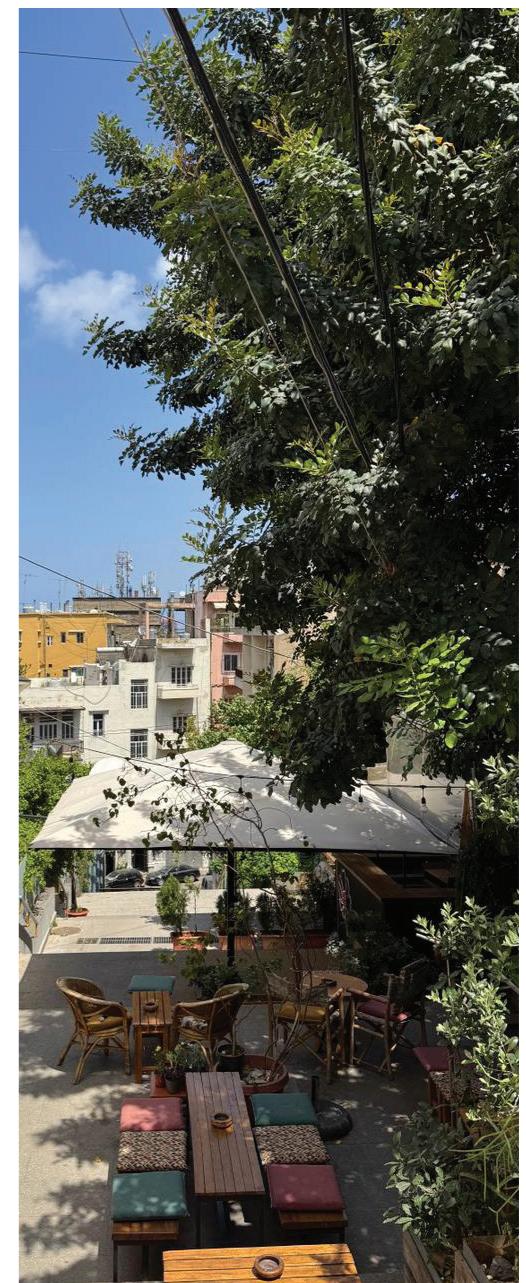


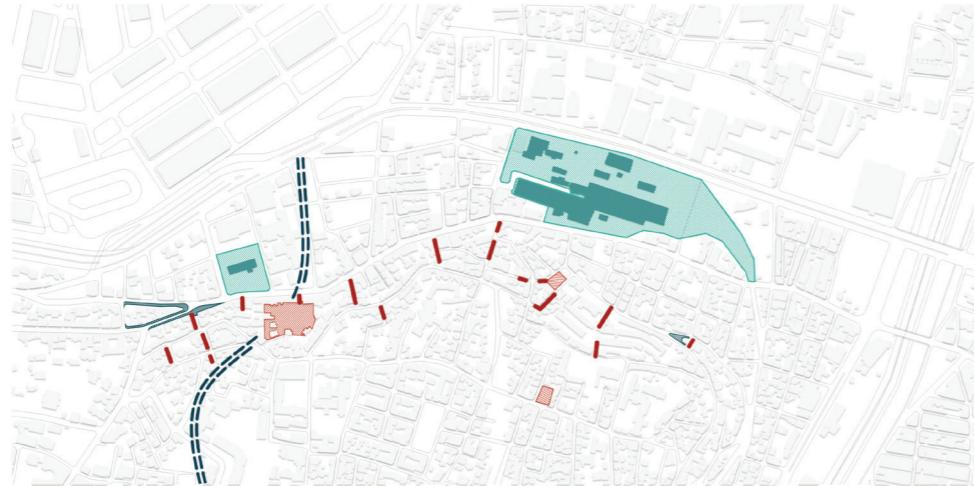
Fig.90 Photograph showing a lively atmosphere on a corner in Mar Mikhael .

## Urban approach

The city's urban approach focuses on sustainable development and connectivity :

### 1. Revealing Main Urban Potentials

The diagram identifies key potential sites in Mar Mikhael, including the train station, the EDL site, as well as three private green parks and the neighborhood's public stairways. It also highlights underused roads and roundabouts as opportunities for soft mobility and green upgrades. Finally, it incorporates the proposed green corridor, which reimagines the former Fouad Boutros highway as a continuous ecological and urban connector.



#### LEGEND:

- Municipal property
- Private or semi-private green park
- Roundabout
- Fouad Boutros green
- Stairs

### 2. Connecting Urban Potentials

In this step, all the key sites identified previously : the train station, EDL site, private gardens, collective stairways and roundabouts, are linked through a continuous urban network. This connection is achieved by integrating streets, pedestrian paths, and stairs across the different topographic levels of Mar Mikhael, creating a coherent system that reconnects fragmented areas and encourages walkability and social interaction.



#### LEGEND:

- Potential intervention site within Mar Mikhael
- Stairs
- Main urban Link
- Mar Mikhael boundary

Fig.91 Steps of the Urban Approach.

### 3. Extending Connections and Creating Active Mobility Loops

From the main urban connectors, pedestrian branches extend into the identified potential sites, allowing them to become more accessible and integrated within the neighborhood. A continuous bike path loop is also introduced, linking several of these key areas and promoting sustainable mobility while reinforcing the physical and social connectivity of Mar Mikhael.



#### LEGEND:

- Potential intervention site
- Main Urban Link
- Sub-division link within potential site
- Bike path loop
- Mar Mikhael boundary

### 4. Overcoming Urban Barriers

New or restored pedestrian bridges address the barriers created by the Charles Helou Highway and other major roads, enabling safe crossings and reconnecting the urban and green network for both pedestrians and cyclists. This strategy also serves as a transferable model, adaptable to fragmented areas like Karantina by identifying suitable intervention points and responding to local constraints, supporting a wider city vision of overcoming infrastructural divides.



#### LEGEND:

- Potential intervention site in Mar Mikhael
- Potential intervention site around Mar Mikhael
- Main Urban Link within Mar
- Urban expansion street
- Urban bike path
- Bridge



### General Master Plan

#### LEGEND:

Mar Mikhael Boundaries

#### Major Public Spaces

Green Parks

Surrounding Potential Zones

Sustainable Parking Opportunity

#### Sustainable Mobility

Pedestrian-Friendly Streets

Bike path

Green Corridor Link

#### Minor Public Spaces

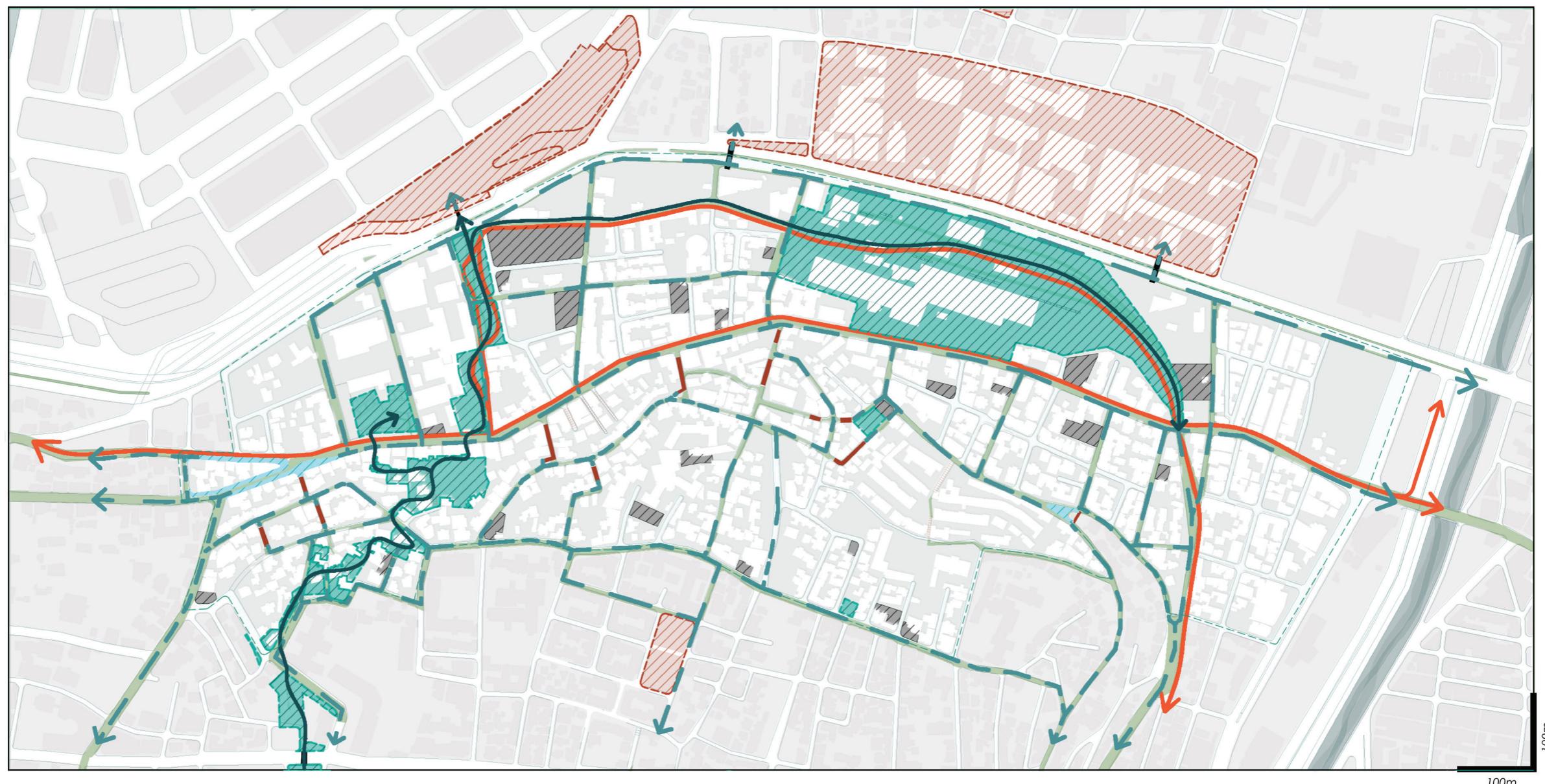
Roundabouts

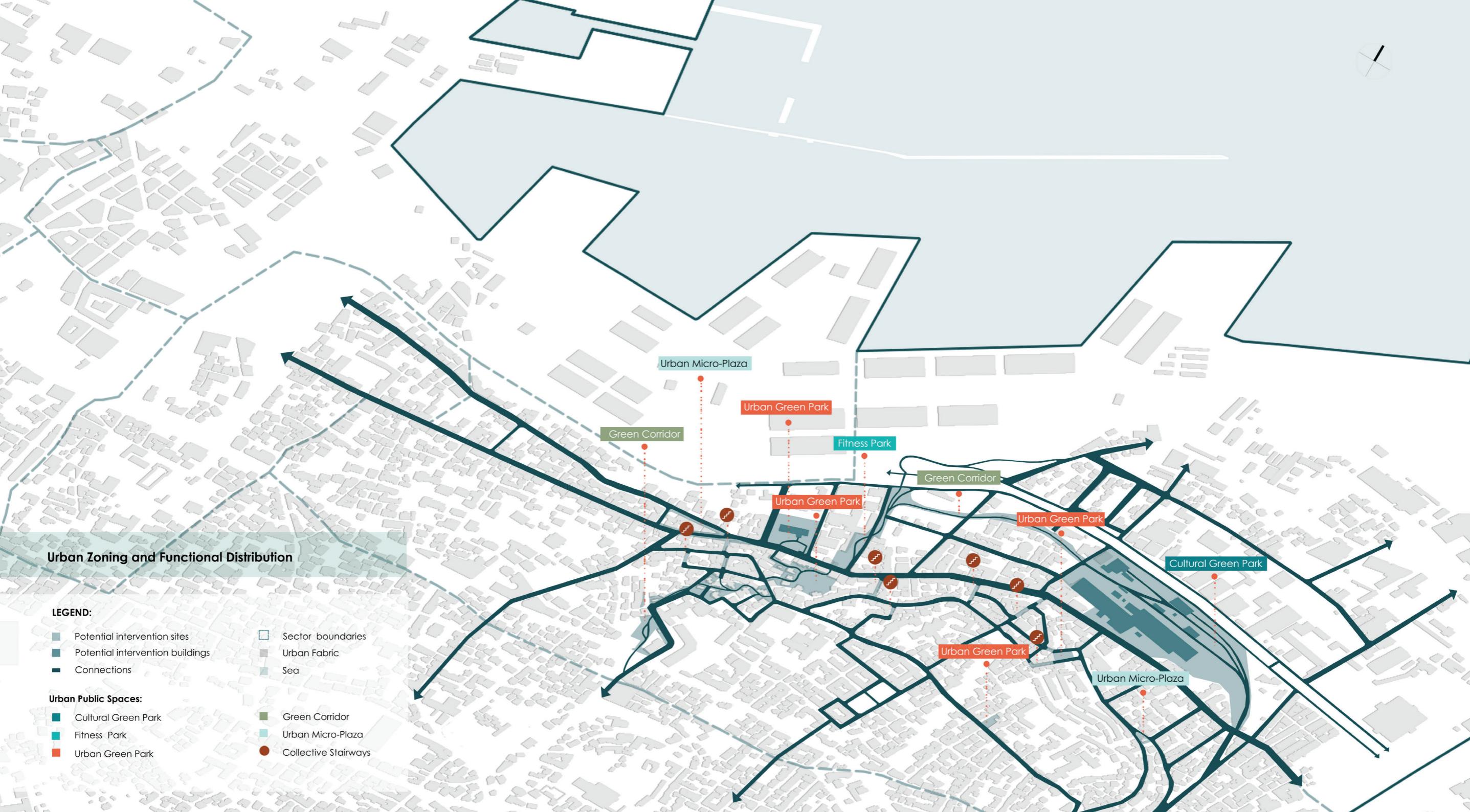
Stairs

Bridges

Tree-lined Street

Fig.92 General Master Plan of the Intervention.





## KEY PLAN

### LEGEND:

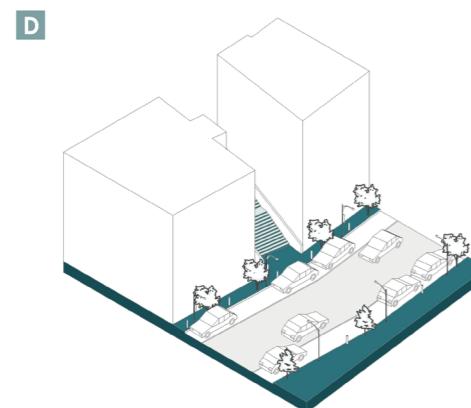
Detailed Plan

Perspective view

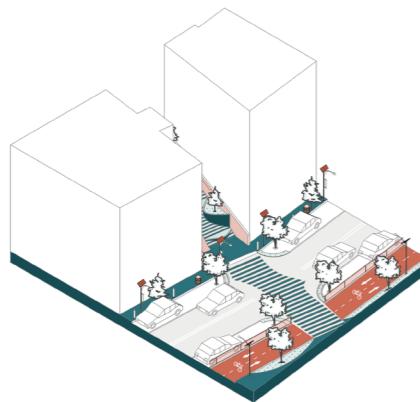
Key plan showing some areas selected for intervention, indicating the locations of the perspectives and detailed plans, while the overall base plan remains unchanged.



Before



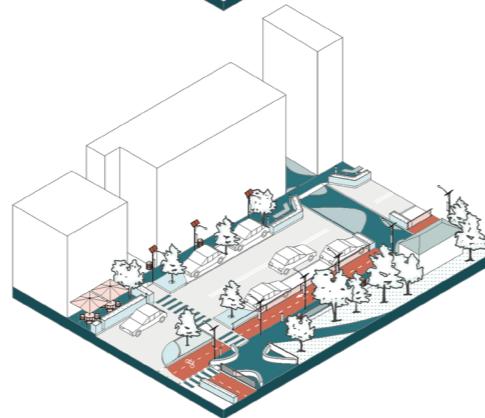
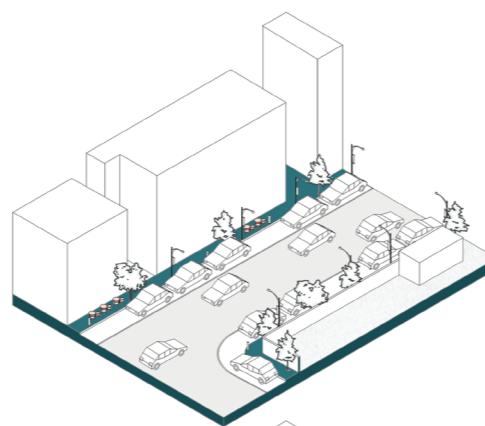
After



### Stair Transformation

The staircase, once neglected, unsafe, and lacking seating, greenery, and proper accessibility, has been reimagined as an inclusive public connector. The intervention adds integrated benches, planted edges, improved lighting, an automatic stairlift for elderly users, and a safe, direct pedestrian crossing. The result is a greener, more accessible space that improves daily mobility and encourages social interaction.

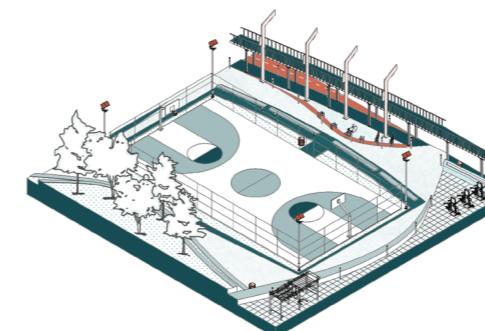
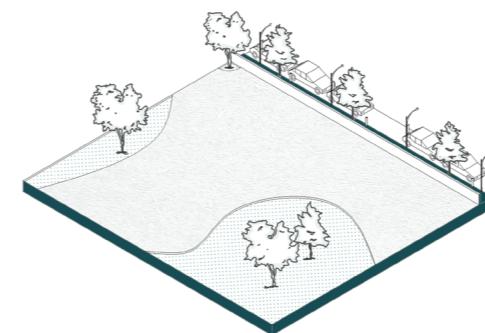
G



### Sidewalk Renewal and Safety Station

The area previously consisted of a neglected empty building surrounded by concrete, while restaurants occupied the pedestrian sidewalk with chairs and tables, making it difficult to pass through. The intervention reclaims part of the space previously used for car parking, widening the pedestrian path and improving the public edge around the building. The refurbished structure now hosts a small police station, enhancing safety and creating a cleaner, more accessible, and pedestrian-friendly environment.

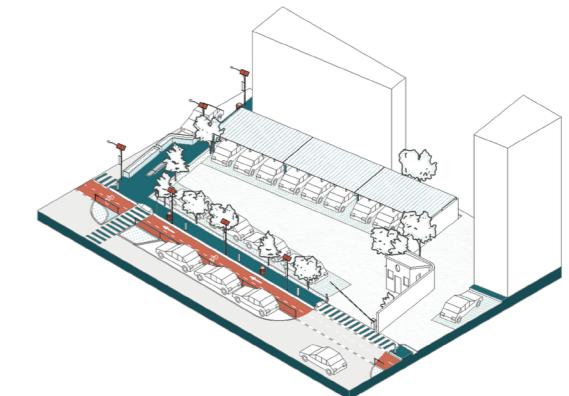
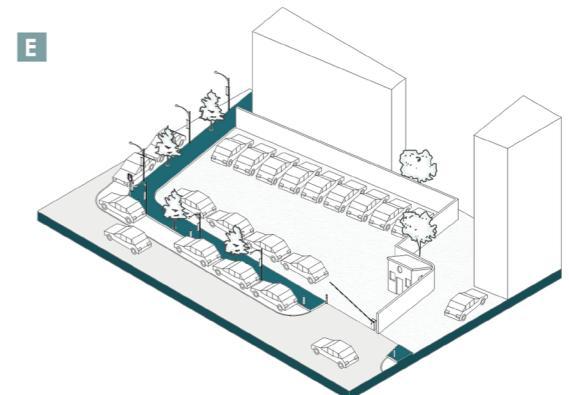
H



### Active Mobility Park

The area was previously a closed concrete surface with no environmental quality or public use. Through the intervention, the hard asphalt was replaced with permeable paving and dense tree planting, creating a cooler and more ecological ground. The site is now a green sports park with open activity spaces, a pedestrian bridge connecting Mar Mikhael to Karantina, and a bike trail passing through, greatly improving mobility, comfort, and active movement in the neighborhood.

E



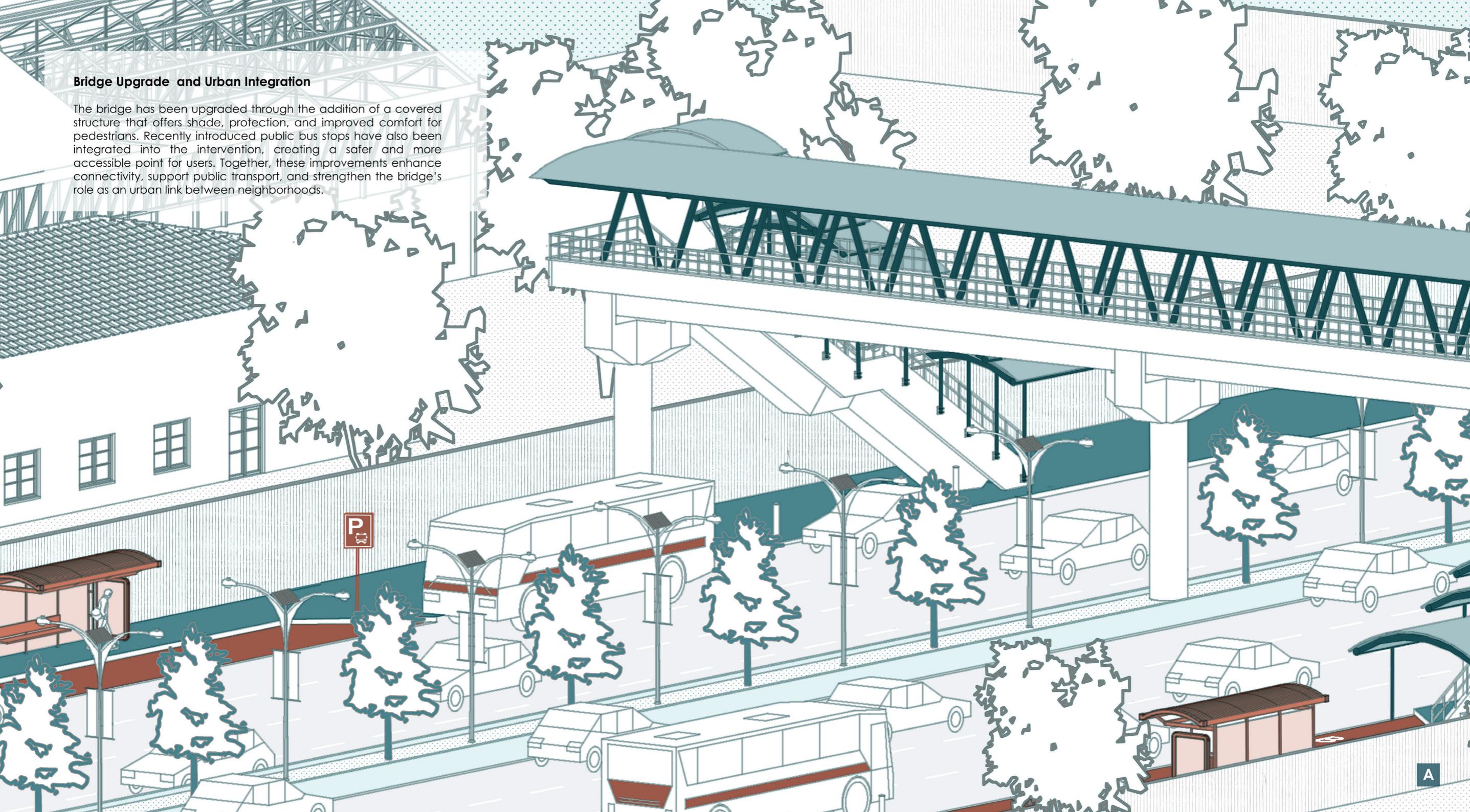
### Eco-Parking Enhancement

The parking area was previously a fully hard-paved surface with no greenery, no shading, and no permeable materials, contributing to heat, runoff, and poor environmental quality. The intervention maintains the parking function but introduces permeable paving, planted edges, bio-retention zones, and shading systems, creating a more sustainable, cooler, and ecologically responsive parking space.

Fig.95 Axonometric View: Before and After Interventions.

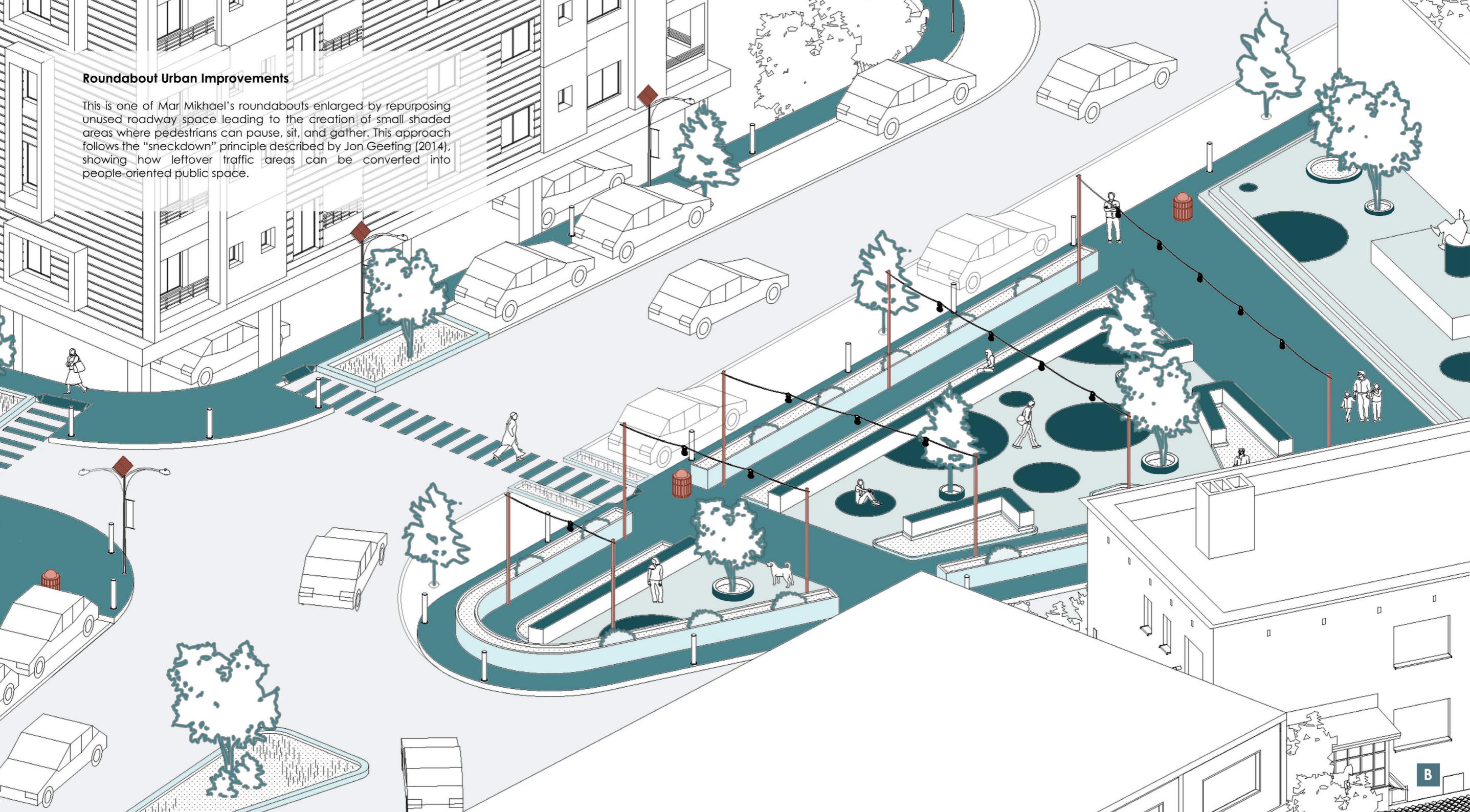
## Bridge Upgrade and Urban Integration

The bridge has been upgraded through the addition of a covered structure that offers shade, protection, and improved comfort for pedestrians. Recently introduced public bus stops have also been integrated into the intervention, creating a safer and more accessible point for users. Together, these improvements enhance connectivity, support public transport, and strengthen the bridge's role as an urban link between neighborhoods.



## Roundabout Urban Improvements

This is one of Mar Mikhael's roundabouts enlarged by repurposing unused roadway space leading to the creation of small shaded areas where pedestrians can pause, sit, and gather. This approach follows the "sneckdown" principle described by Jon Geeting (2014), showing how leftover traffic areas can be converted into people-oriented public space.



**Master Plan – Detailed Area 1****LEGEND****Transportation Paths**

- Bicycle Track
- Pedestrian Sidewalk
- Vehicular road

**Hardscape/Softscape**

- Vegetation Zone
- Permeable interlocking pavers
- Green Grass zone
- Rubber Paver Tile
- Permeable zone or Painted zone



Fig.96 Detailed plan 1 around the EDL Building and the Fitness Park.



Section 1-1

Fig.97 Section 1 illustrates the fitness park and its spatial configuration.

Covered Pathway - Pedestrian Bridge

Double way Bike Trail

One way Vehicular Route

Planters

Parking

Pedestrian Pathway

Collective Green Spaces : Sitting stairs - Basketball court - Outdoor



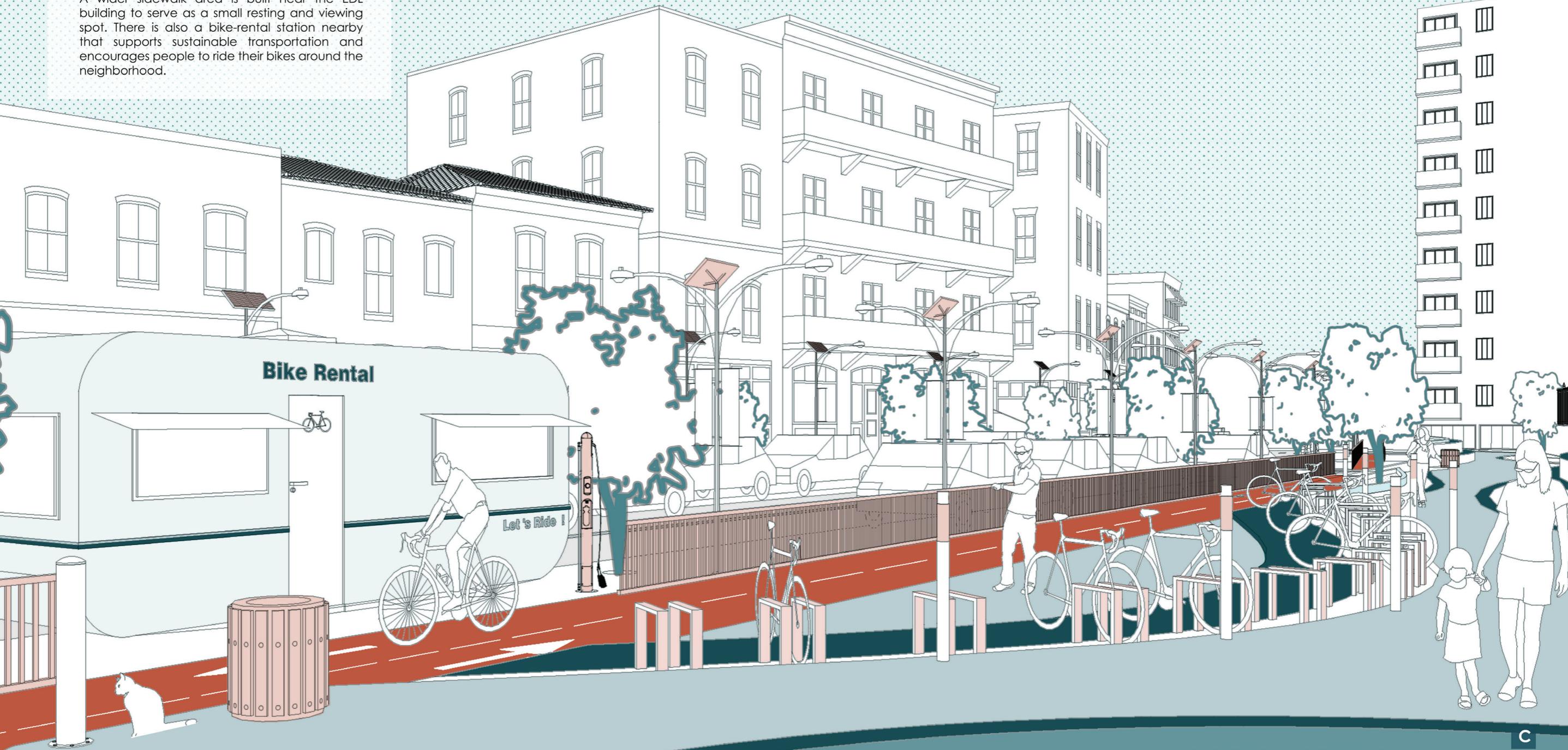
Section 2-2

Fig.98 Section 2 illustrates the Section 2 illustrates the stairs and the continuity of the intervention.



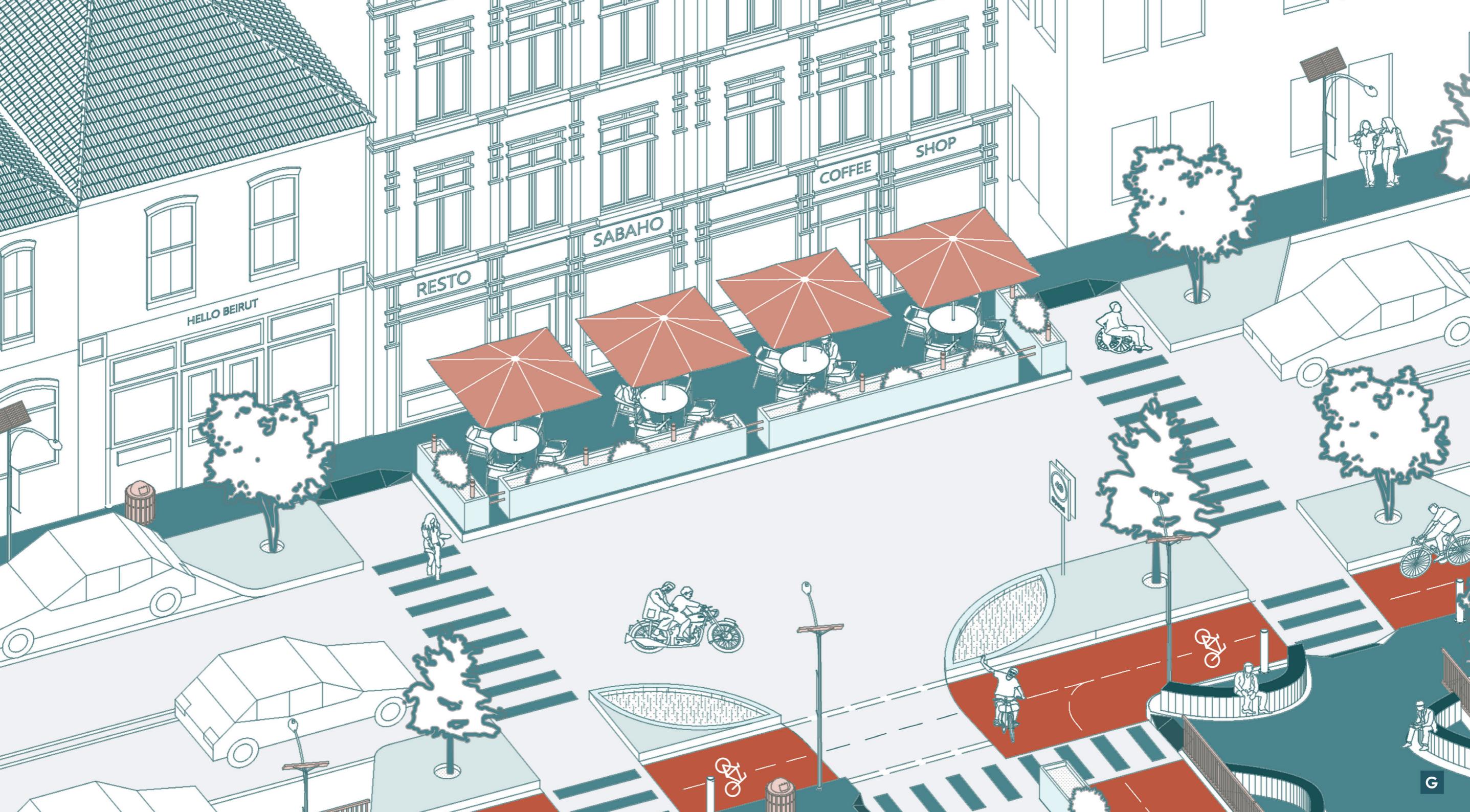
### Enhanced Sidewalk and Bike-Rental Node

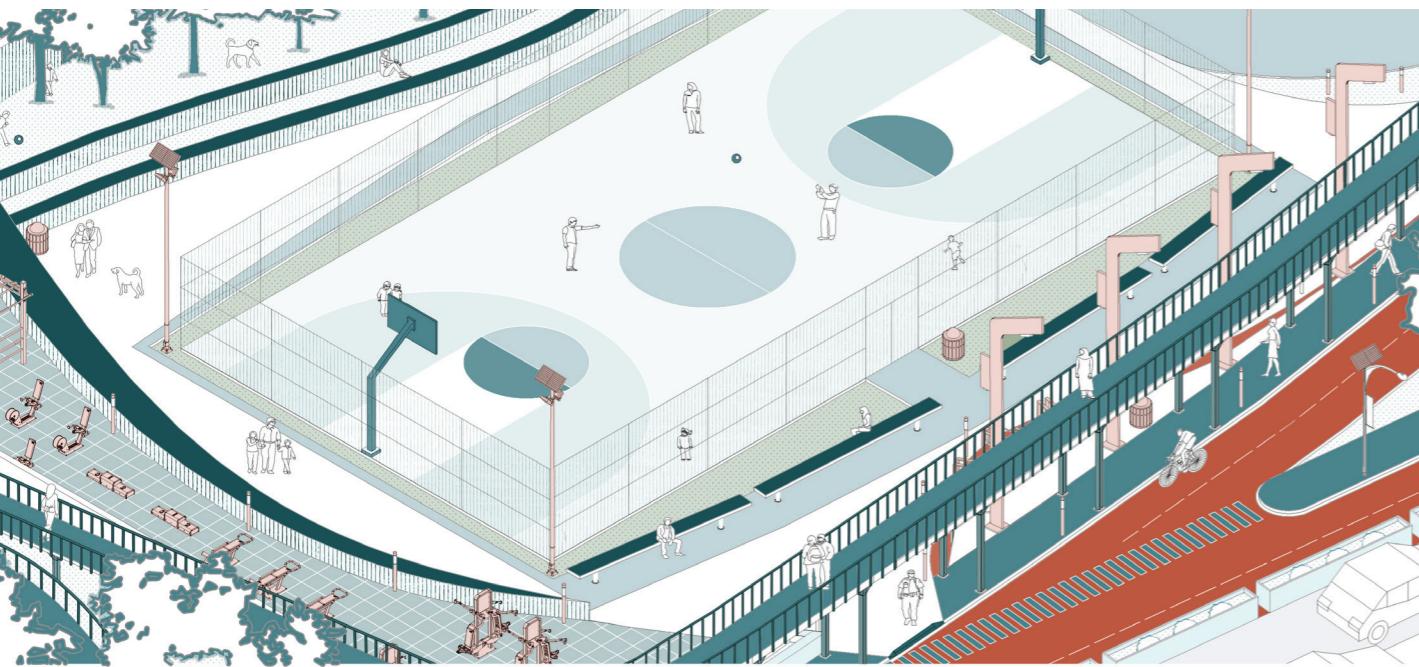
A wider sidewalk area is built near the EDL building to serve as a small resting and viewing spot. There is also a bike-rental station nearby that supports sustainable transportation and encourages people to ride their bikes around the neighborhood.











### Community Art Wall

Since Mar Mikhael has a strong graffiti culture, one wall is left open on purpose so that community art can be displayed there. This lets people show who they are reflecting their identity, and keep memories alive for everyone.

### Fitness Green Park & Pedestrian Bridge Connection

The empty asphalt lot is turned into a fitness green park with running tracks, outdoor gym structures, and courts for football, basketball, and tennis. A pedestrian bridge links this new park to the other side of the road in Karantina making it easier for people to get to and use both sides of the highway.

H

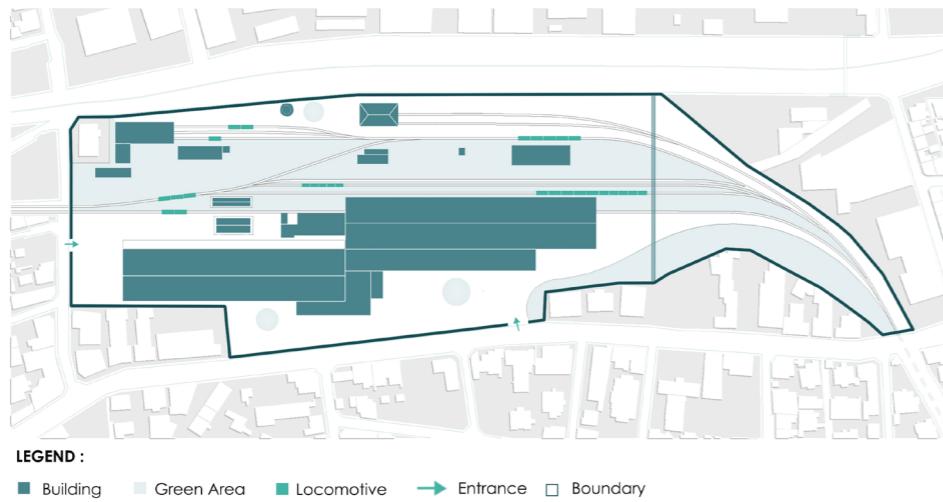


### Conceptual approach

A progressive transformation reconnecting the Mar Mikhael train station to its urban, social, and environmental context.

#### 1- Existing site context

Natural and built elements frame the historic train station within Mar Mikhael's dense texture.



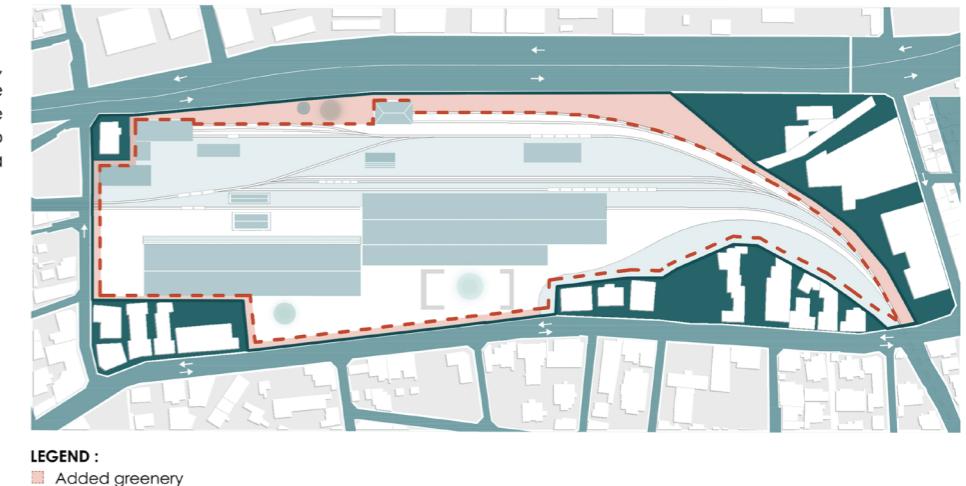
#### 2-Site transformation

Removed non-historic and abandoned buildings, added new buildings and stepped seating platforms, kept heritage and recent industrial ones, and reopened the site to its original boundary.



#### 3-Site buffering strategy

Surrounded by dense roads, buildings, and the highway, the train station is going to be enclosed with greenery to reduce noise and create a pleasant environment.



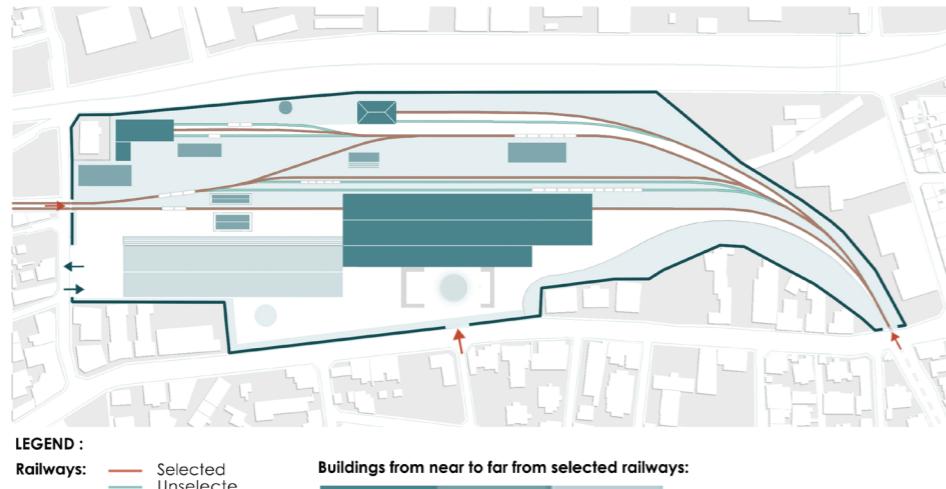
#### 4-Access and entry strategy

Given the site's longitudinal form, pedestrian entries are placed approximately every 170 m, with one main entrance facing the central tree and two others aligned with former rail access points. Vehicle access is planned from the secondary road near the highway for an underground parking.

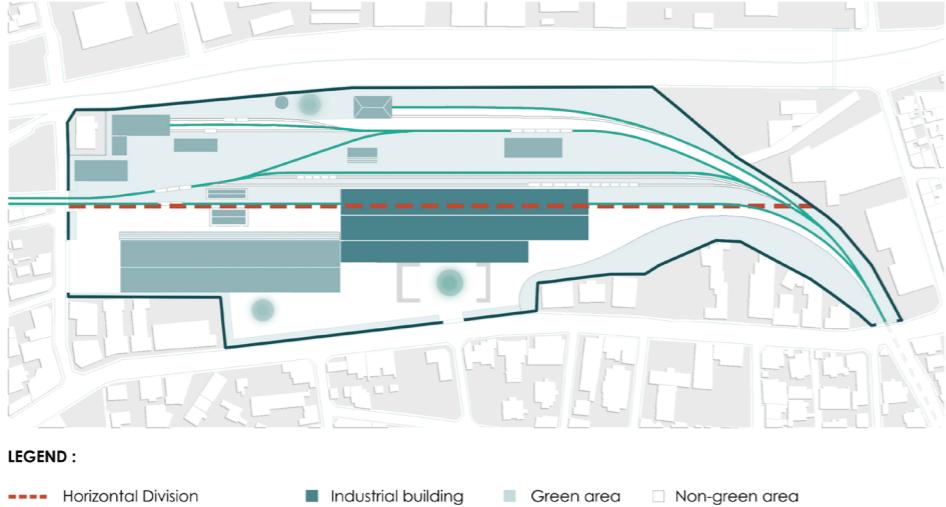


**5-Pedestrian circulation**

Selected railways are transformed into pedestrian paths, connecting the urban fabric to the train station and linking existing buildings within the site. Other rail lines are integrated as planted or furnished linear elements.

**6-Spatial imbalance**

The site reveals a clear division: one side rich in railways and green areas, the other dominated by impermeable surfaces, both separated by the industrial building at the heart of the station.

**7-Transformation from isolator to connector**

Some openings are going to be created in the central industrial building to allow air flow, greenery, and pedestrian circulation to pass through, transforming it into a connector. In the surrounding green areas, new spaces and urban furniture will foster social interaction and continuity across the site.

**8-Mobility loop and connection**

The central industrial building becomes the heart of the project, concentrating all circulations. Around it, the train station transforms into a cultural hub with functional and memorial spaces. So the new bike loop, pedestrian routes, and urban interventions are going to link the pieces of Mar Mikhael to each other and, later, to the rest of Beirut, creating a sustainable and connected city.

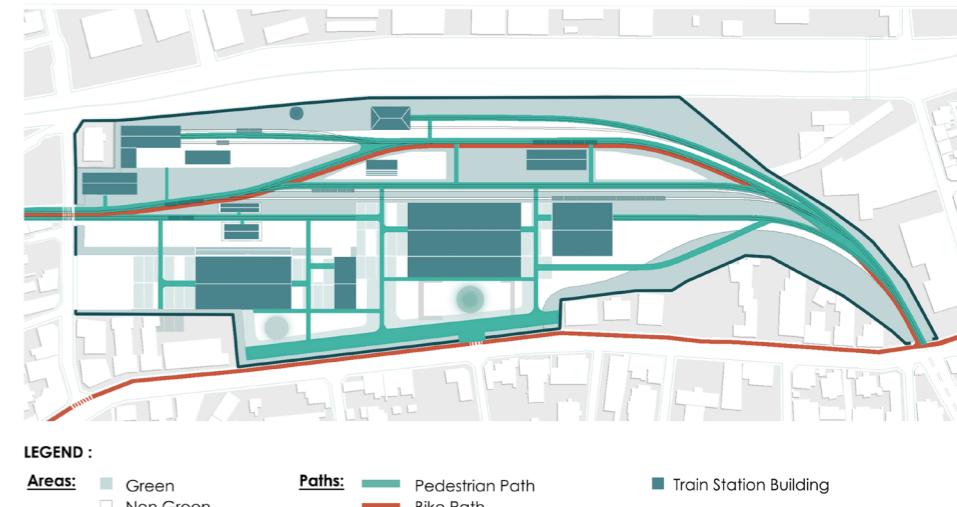


Fig.99 Train Station Concept Steps.



# A CULTURAL HUB FOR ALL PEOPLE

## Mar Mikhael Train Station: Adaptive Reuse as a Green Cultural Hub

The redevelopment of the Mar Mikhael Train Station suggests a green urban park and cultural centre in which everyone, regardless of their age, communities, and backgrounds may enjoy.

The project is an incorporation of memory, culture, leisure and nature to form a living urban space that spans through the day and night. Learning, performances, cultural events are provided by a modern library, multipurpose hall, small theatre and indoor/outdoor exhibition. Painting, sculpturing, dancing , acting, cooking, digital skills and languages workshops enable creative and educational activities to occur at all times.

A memorial museum of the part the station played in the collective memory of Beirut is used to preserve the history of the site. The project will also have administration areas, rentable offices, a temporary outdoor market for book for example , a coffee shop and restaurant that act as social places to sustain local life and economy.

The outdoor park is friendly to every-day use with picnic spots, reading areas, board games, playgrounds, and bike rental linked to a broader bike trail system. Prices in the cheaper short-term accommodation units in renovated locomotives make it a special place to live, and an indoor parking service of 150 vehicles offers a response to the deficiency of a parking zone in the neighborhood without jeopardizing the green zone, given that the train station was utilized to park the public buses in the neighborhood they are going to be relocated to charles helou bus parking.

All in all, the project will be a welcoming community gathering space of local residents, visitors, students, artists, workers, families, people with limited mobility and local species and rejuvenate the station as a space to create new collective memories, not merely recollect previous ones. It operates during the day and night benefiting free public use and sustainable economic activity

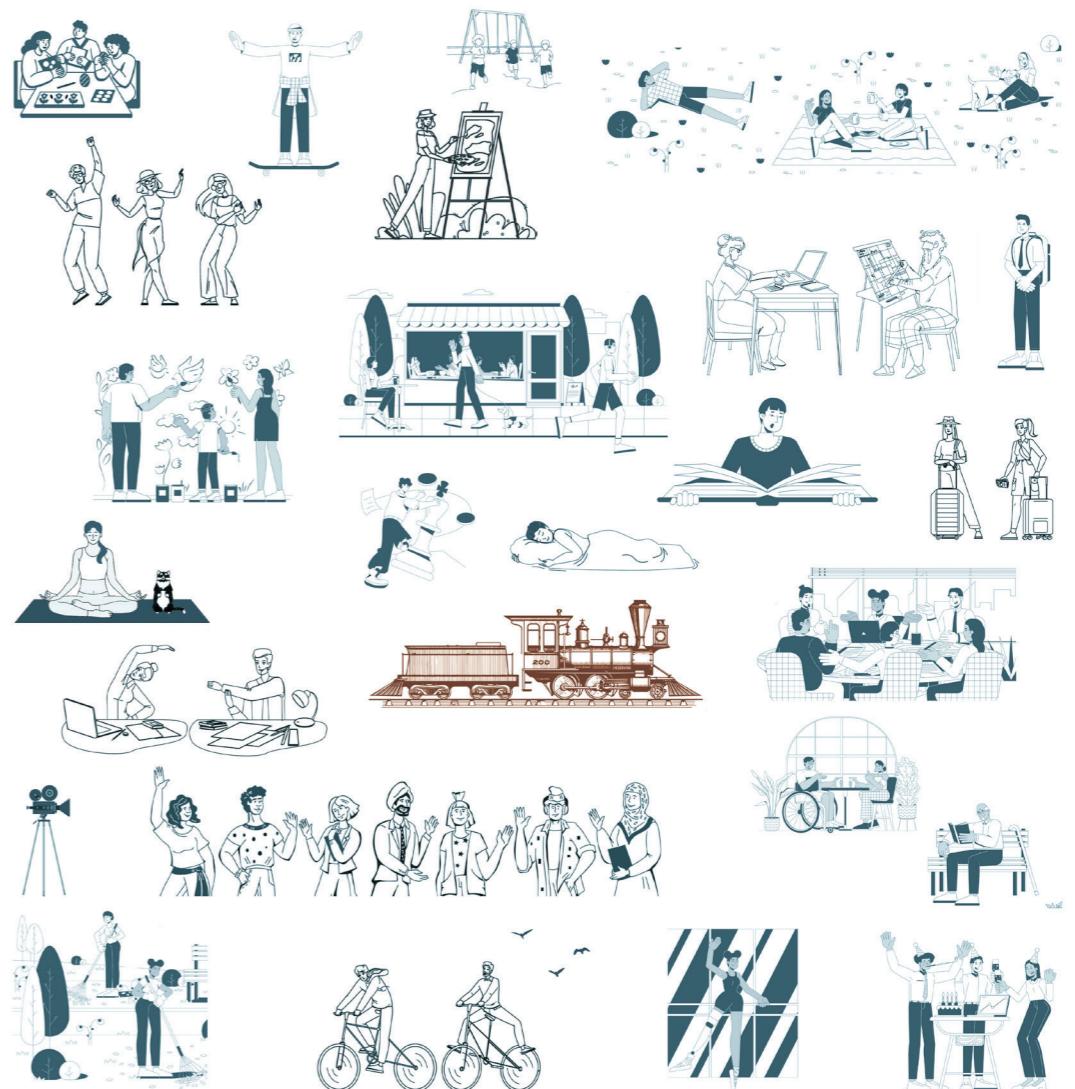


Fig.100 Evolution of Mar Mikhael train station : From transport Hub to inclusive cultural and ecological space for all ages and social classes.

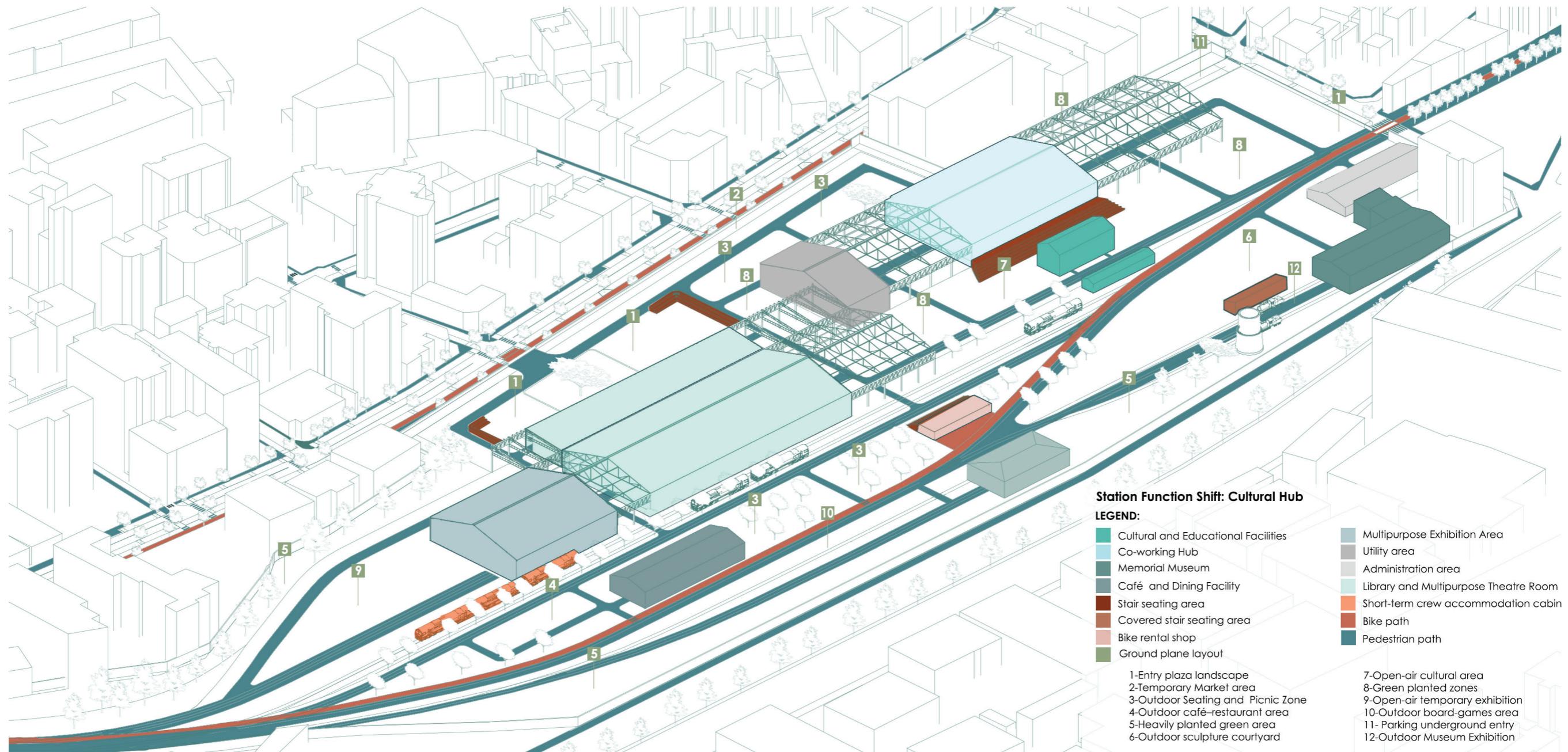


Fig.101 Train Station Function Distribution.

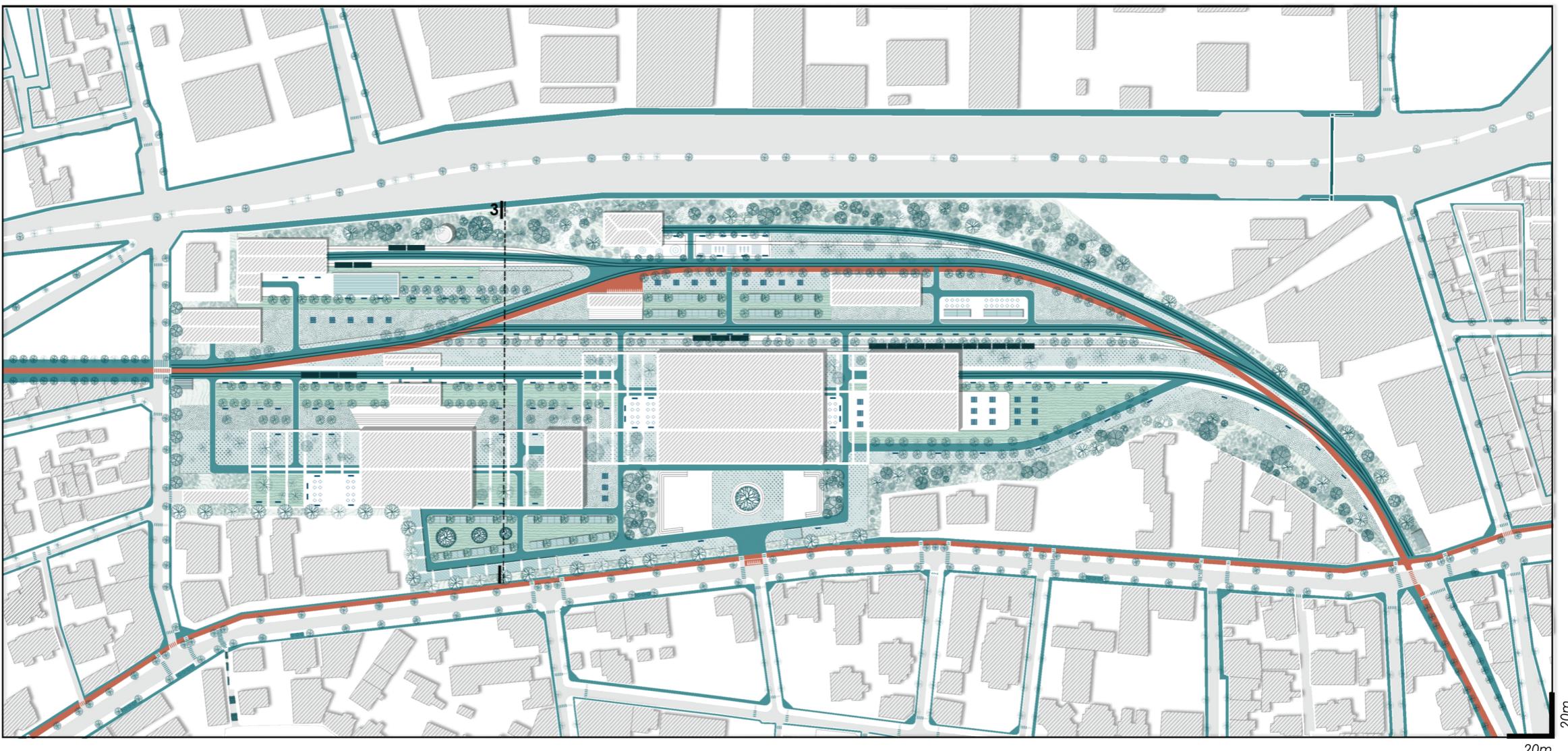
**Master Plan – Detailed Area 2****LEGEND****Transportation Paths**

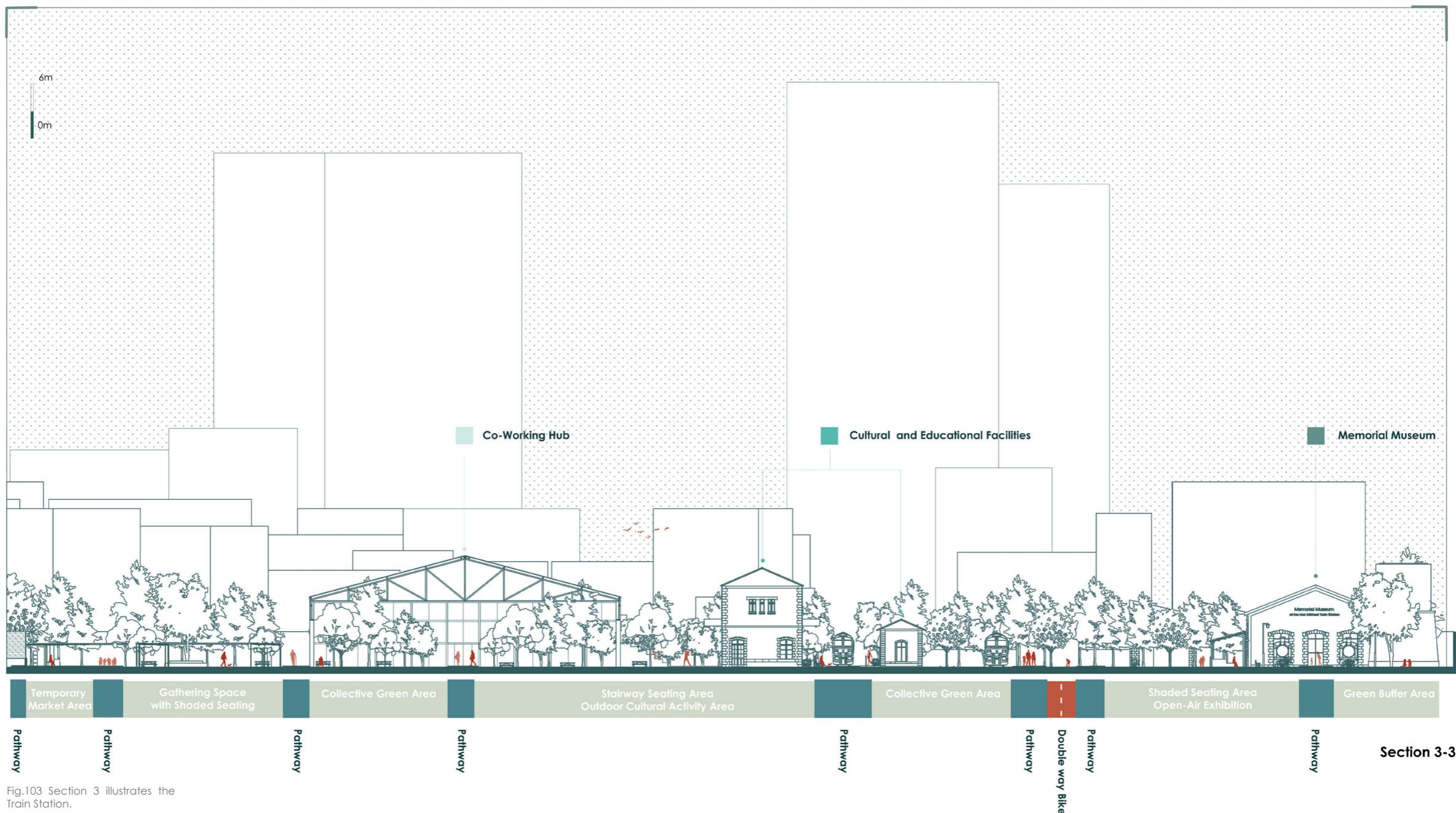
- Bicycle Track
- Pedestrian Sidewalk
- Vehicular road

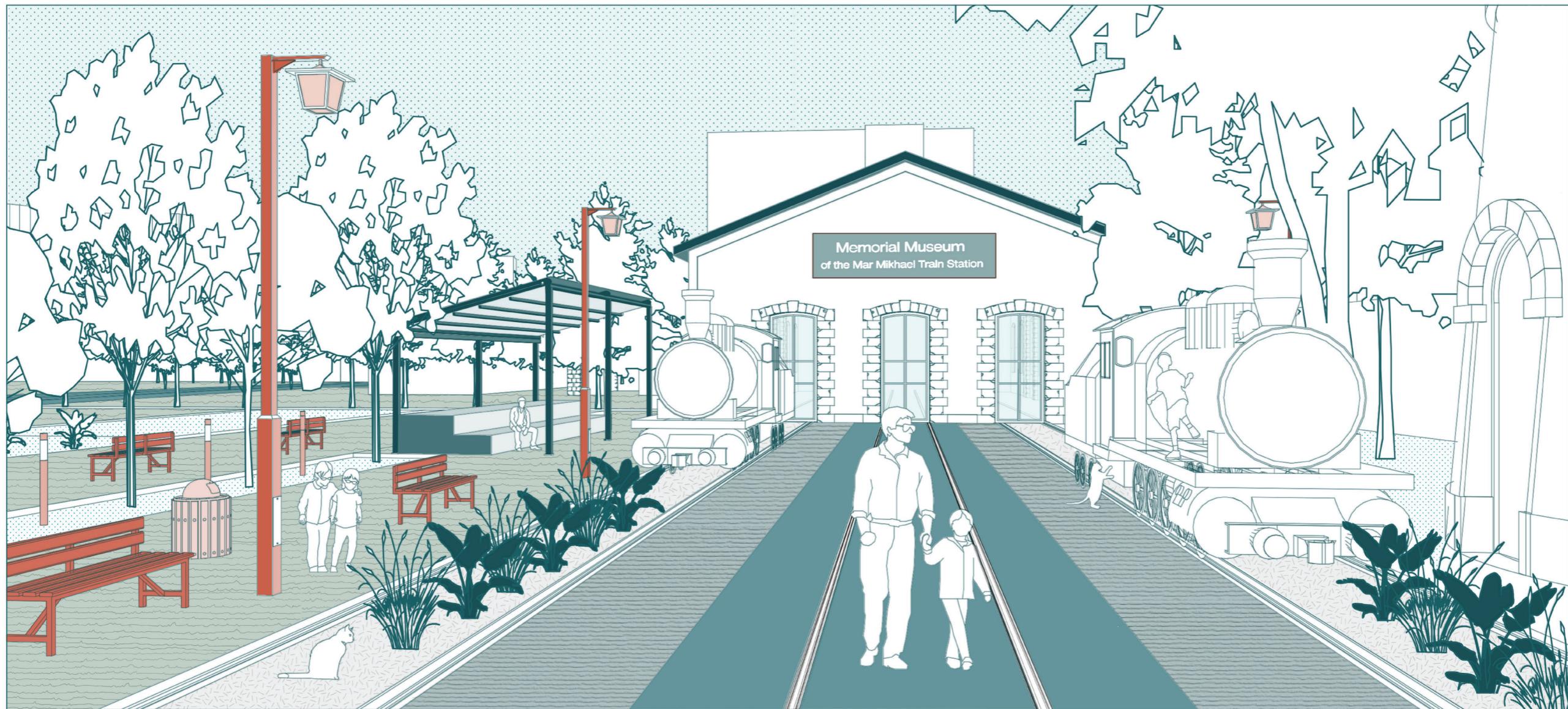
**Hardscape/Softscape**

- Permeable Grass Paver Blocks
- Vegetational zone
- Green Grass spaces
- Dense Green Buffer Zone

Fig.102 Detailed Plan 2 of the Train Station.



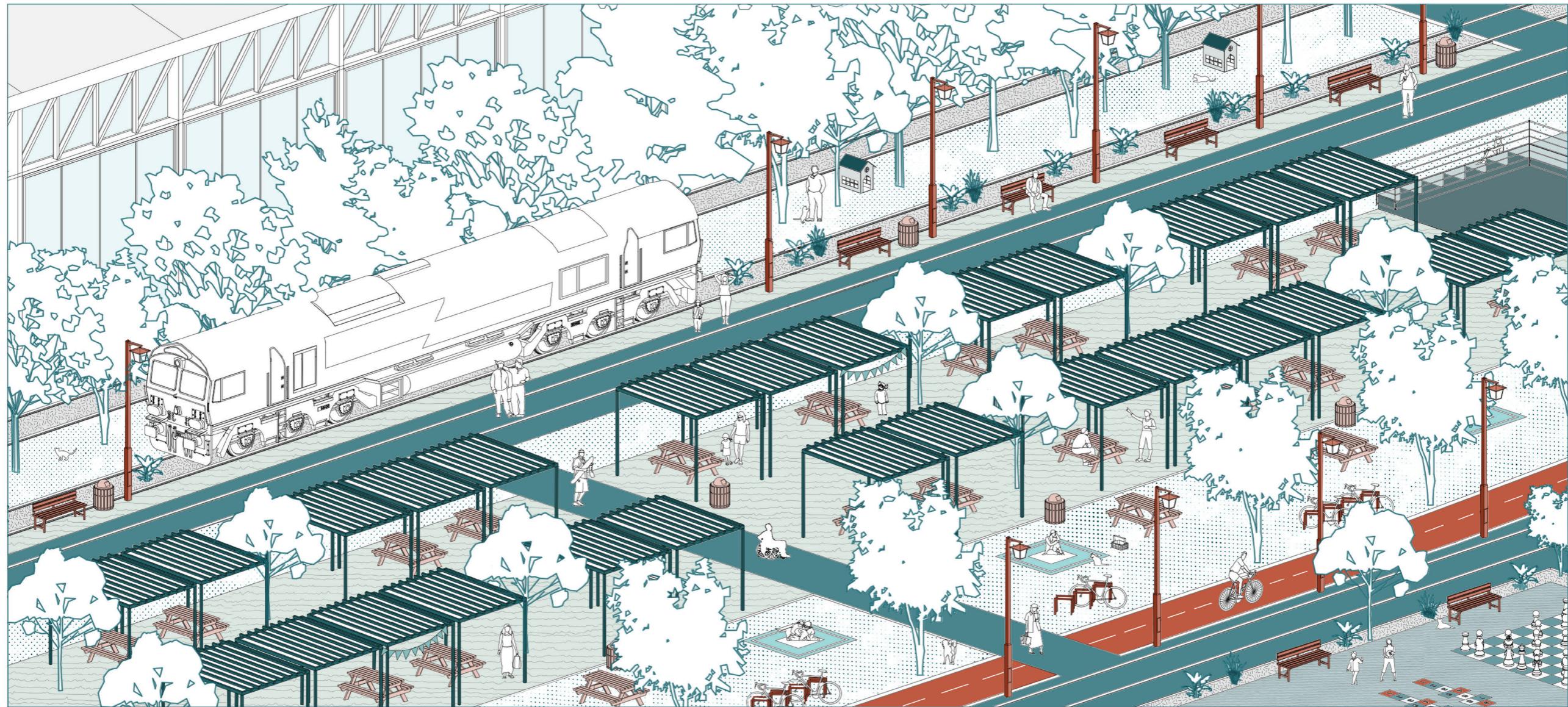




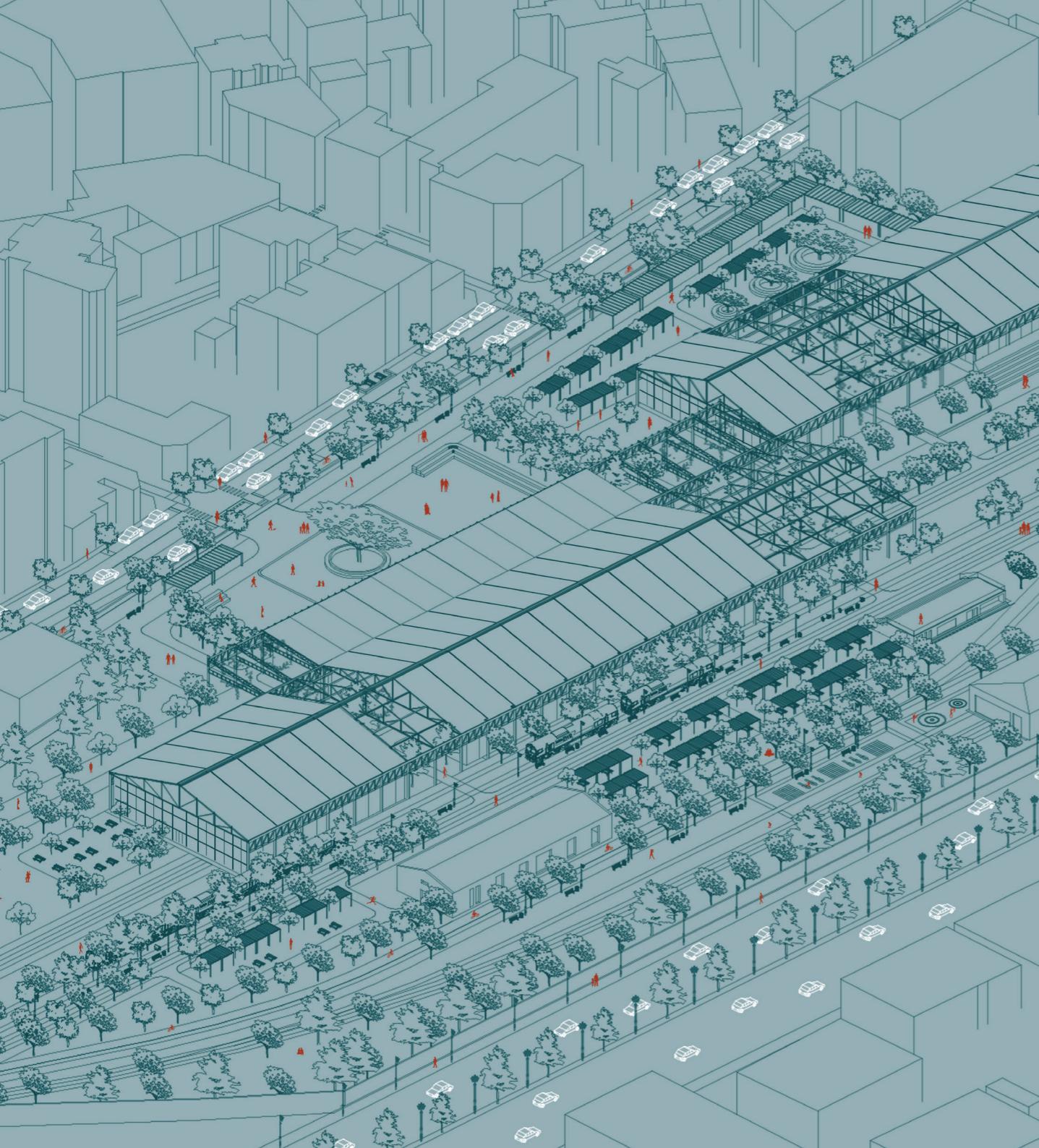
Outdoor Museum Exhibition



## Open-Air Cultural Activation Zone



Picnic Area within the Train Station Grounds



The reconnecting and reactivation of collective urban spaces makes a strong tool towards healing the city of Beirut which is currently disjointed and restoring a unified public life among citizens. In the city of Beirut full of historical accidents, overlays, and mental boundaries, the public space is more than a physical void but a medium of healing and continuity.

This thesis uses the example of Mar Mikhael to demonstrate how the joining between the disconnected gardens, stairs, sidewalks, cultural, and the rest of the plots left over can transform the isolated spaces into one network, which is helpful to assist in movement, memory, and everyday life.

Through emphasizing pedestrian access, environmental corridors, openness and adaptability to the reuse of past and industrial fabric, the collective spaces will start to be a network that links areas that have been long divided because of roads, topography, and socio-economic forces.

Stated differently, the redevelopment of the train station, the development of stairways and cross streets, the mobilization of roundabouts and vacant plots, and the establishment of new green and cultural hubs are examples of how more specific interventions can produce more continuity at the urban scale. Such spaces enable people of every age or origins to move, encounter, sleep, communicate and restore a common city identity.

In the end, bringing collective spaces back to life does more than just make it easier to get around or add more plants, but it also rebuilds trust in the city and sets the stage for people to live together once again and coexist.

In Beirut, crises have repeatedly fractured spatial and social bonds, hence reconnecting the urban fabric is the best way for reconciliation, by giving people places to gather, cross paths, and simply belong, leads to revive the everyday public life that holds the city together. Through these interventions, this thesis argues that the future of Beirut's resilience lies not in large-scale projects, but in the careful, sensitive reweaving of the small spaces where community, memory, and urban life awaken once again.

## List of Figures

- Fig.1 The image captures Jami'a in Dar El Mreisse, illustrating the coastal neighborhood's everyday urban life and architectural character . Source : @mozinati. Instagram profile. Published September 27, 2020. <https://www.instagram.com/mozinati/?igsh=MThiaWY3eTd6cmNIZQ==>
- Fig.2 Lebanon's Location in the Middle East.
- Fig.3 Aerial View of Downtown Beirut .Source : amazingviewsoflebanon. "Beirut, Lebanon." Instagram (photo), January 31, 2022.<https://www.instagram.com/p/CZYpfbsgJDn/>
- Fig.4 Historical Evolution of Beirut (Author, inspired by (El Hage and Rizk ,2023))
- Fig.5 Lebanese Railways from Beirut to Damascus (1960s) , (El Hage and Rizk ,2023)
- Fig.6 Beirut–Damascus Railway: Station Conditions During Operation and After Their Abandonment. (The PhotoOrientalist , 2020)
- Fig.7 Map showing Beirut's historical development. (Author, inspired by Yassin, 2022)
- Fig.8 Map Showing Beirut's current road network.
- Fig.9 Map showing Beirut's current urban fabric.
- Fig.10 Map showing Beirut's green areas : public, private and restricted (Author, inspired by Hindi, 2023)
- Fig.11 Destruction at Beirut Port Following the August 4, 2020 Explosion. Source: Euro-Med Human Rights Monitor. "Lebanon: Justice Delayed for Beirut Explosion Victims as Investigation Drags On." Euro-Med Monitor, August 3, 2023. <https://euromedmonitor.org/en/article/5771/Lebanon:-Justice-delayed-for-Beirut-explosion-victims-as-investigation-drags-on> .
- Fig.12 Beirut Port Explosion: Blast Radius and Affected Urban Fabric. (Author; inspired by Source : "Beirut Recovery," Beirut Recovery, accessed December 3, 2025, <https://beirutrecovery.org/>
- Fig.13 Fouad Boutros Highway: Location and Resulting Urban Division .
- Fig.14 Charles Helou Highway.
- Fig.15 Gare Routière Charles Helou . Source : Bus-Planet. 2025. "Bus Station Lebanon: Introduction." Accessed November 19, 2025. <https://www.bus-planet.com/bus/bus-asia/Lebanon/files/busstation/intro-busstation.html>
- Fig.16 Socio-Economic Distribution Across Beirut. (Author, inspired by Aouad and Kaloustian, 2021)
- Fig.17 Photo of Downtown Beirut souks. Source : Akiki ,2024
- Fig.18 Photograph of Mar Mikhael neighborhood.
- Fig.19 Photograph of Karantina neighborhood. Source : Ghorayeb, 2025
- Fig.20 Historical Evolution of Mar Mikhael (Author, inspired by (El Hage and Rizk 2023))
- Fig.21 Map showing the railway and tramway network in the 1950s (Author, inspired by Souce : El Hage and Rizk, 2023; Prints-Online. 1945. "WW2 – Map of Beirut, Lebanon – with Military Locations." Accessed November 19, 2025. <https://www.prints-online.com/ww2-map-beirut-lebanon-military-locations-14391078.html>).
- Fig.22 Map showing the topography and altitude variation of Beirut and Mar Mikhael .
- Fig.23 Map showing governmental, municipal properties, and military-occupied sites in Mar Mikhael and its surroundings. (Author, inspired by ACTED ,2021a; ACTED ,2021b)
- Fig.24 Distribution of Facilities in Mar Mikhael and Its Surroundings. (Author, inspired by ACTED, 2021a; ACTED ,2021b).
- Fig.25 Map of the Road Network in Mar Mikhael .
- Fig.26 Photograph showing a street in Mar Mikhael .
- Fig.27 Photograph showing restaurant extensions on the sidewalk .
- Fig.28 Photograph showing bicycle parked by resident in the neighborhood.
- Fig.29 Stairways in Mar Mikhael: A Response to Steep Topography .
- Fig.30 Stairway 1 : Photograph of Golam Stairs. Source : Dagher, Yasmine (@yasmined-agher). Instagram photo, February 2022. <https://www.instagram.com/p/CaPpL16NytO/>
- Fig.31 Stairway 2 : Photograph of The Stair facing EDL .
- Fig.32 Stairway 3 : Photograph of Masaad Stairs.
- Fig.33 Stairway 4 : Photograph of Live Love Beirut Stairs .
- Fig.34 Stairway 5 : Photograph of Geara Stairs.
- Fig.35 Stairway 6 : Photograph of Laziza Park Stairs.
- Fig.36 Photograph of Mar Mikhael showing the sloped topography with a stair-sidewalk connecting upper and lower streets.
- Fig.37 Photograph of cats resting near the stair area in Mar Mikhael.
- Fig.38 Photograph showing some extended areas added to the site near the stairs.
- Fig.39 Photograph showing the urban intervention and implemented furniture on the Geara Stairs.
- Fig.40 Photograph the Graffiti on stairs wall .
- Fig.41 Photograph the Graffiti on the walls .
- Fig.42 Photograph showing the Graffiti the walls.
- Fig.43 Photograph showing Protests Against the Fouad Boutros Highway Project .Source: Environmental Justice Atlas. "Fouad Boutros Highway, Lebanon." 2014. <https://ejatlas.org/conflict/fouad-boutros-highway-lebanon>
- Fig.44 Map showing buildings endangered and to be demolished by the proposed Fouad Boutros Highway. (Stop the Highway Coalition, Accessed 2025)
- Fig.45 Map showing the alternative green and pedestrian proposal developed by the Civil Coalition Against the Fouad Boutros Highway .Source : "Bâtiments en Danger." Stop the Highway. Accessed November 13, 2025. <https://stopthehighway.wordpress.com/wp-content/uploads/2014/03/batiments-en-danger1.jpg>
- Fig.46 Heritage buildings of Mar Mikhael aligned along Armenia Street .Source : Najib, "Heritage Buildings of Beirut Placed on 2022 World's Monuments Watch," BlogBaladi, March 2, 2022. <https://blogbaladi.com/heritage-buildings-of-beirut-placed-on-2022-worlds-monuments-watch/>
- Fig.47 Diagram illustrating the typological evolution of the buildings in Beirut before the implementation of elevators.(NAHNOO ,2020)
- Fig.48 Map showing the distribution of building ages in a selected area of Mar Mikhael (Author, inspired by NAHNOO 2020).
- Fig.50 Photograph showing the restoration of damaged building .

## List of Figures

- Fig.49 Photograph showing a Lebanese traditional house after the August 4 Beirut port explosion. Source : ArchDaily. "UNESCO Launches New Restoration Projects in Beirut Following the 2020 Explosion." ArchDaily, October 1, 2025. <https://www.archdaily.com/1034637/unesco-launches-new-restoration-projects-in-beirut-following-the-2020-explosion>.
- Fig.51 Photographs showing the diversity of architectural styles and materials in the Mar Mikhael neighborhood.
- Fig.52 Map showing the different building heights in the Mar Mikhael neighborhood (Author, inspired by NAHNOO ,2020).
- Fig.53 Series of photographs illustrating visual clutter along the stairways at different levels, showing that the view toward the sea remains blocked despite the change in elevation .
- Fig.54 Photograph showing the height difference between traditional buildings and newer high-rise constructions in Mar Mikhael.
- Fig.55 Photograph of a high-rise building in Mar Mikhael.
- Fig.56 Map and table showing the zoning in Mar Mikhael and its surrounding areas (Author, inspired by NAHNOO ,2020).
- Fig.57 Map of function distribution in Mar Mikhael (Author, inspired by NAHNOO 2020).
- Fig.58 Photograph of the EDL site.
- Fig.59 Photograph of the Train station site.
- Fig.60 Map of ownership in Mar Mikhael (Author, inspired by NAHNOO ,2020).
- Fig.61 Survey with residents and renters in Mar Mikhael (Author, inspired by NAHNOO ,2020).
- Fig.62 Michel Assaad and his chihuahua Pepsi, on his terrace where he spends most of his time. Source : Khoder, Patricia. "« Ce quartier était comme un village. C'était ça, le vrai Mar Mikhaël ». L'Orient-Le Jour, June 17, 2021. <https://www.lorientlejour.com/article/1265441/-ce-quartier-était-comme-un-village-cétait-ca-le-vrai-mar-mikhael.html>
- Fig.63 Michel Assaad House: A Mar Mikhael Native, Born and Raised in the Neighborhood.
- Fig.64 Photograph showing the artistic shopfront in Mar Mikhael.
- Fig.65 Map showing the urban change trajectories from Downtown to Mar Mikhael after the beginning of the urban redevelopment in 1990.
- Fig.66 Pub Scene on a Busy Nightlife Street in Mar Mikhael . Source : Eid, Joseph. "Lebanon-Daily Life: Revelers Drink at a Pub on a Busy Nightlife Street in Beirut's Mar Mikhael Neighbourhood, June 22, 2024." AFP via Getty Images. Accessed November 20, 2025. <https://www.gettyimages.ae/photos/beirut-nightlife>
- Fig.67 Photographs showing minor green spots in Mar Mikhael, located along the streets, on residential balconies, and between ground-floor commercial shops.
- Fig.68 Map showing green areas and parking lots in Mar Mikhael .(Author, inspired by NAHNOO 2020)
- Fig.69 Photographs showing the two access points to the train station, from both the main road and the secondary road.
- Fig.70 Map Showing Accessibility to the Mar Mikhael Train Station.
- Fig.71 Map Showing Environmental Sound Distribution in the Mar Mikhael Train Station, Influenced by Its Surrounding Context.
- Fig.72 Landscape of the Mar Mikhael Train Station: Map Showing Softscape and Hardscape
- Fig.73 Catalogue of Landscape Components (Soft & Hard) in the Mar Mikhael Train Station
- Fig.74 Map showing Building Footprints within the Mar Mikhael Train Station Area .
- Fig.75 Photograph of Mar Mikhael train station .
- Fig.76 Map showing the Current Functions of the Mar Mikhael Train Station.
- Fig.77 Parking for public buses in the Train Station.
- Fig.78 Photograph showing a street closed where the railway once passed .
- Fig.79 Photograph of one of the bridges connecting Mar Mikhael to Karantina.
- Fig.80 Photograph of the staircase facing EDL shows damage and lacks proper maintenance.
- Fig.81Photograph of a small roundabout with no greenery, surrounded by unused spaces and oversized road infrastructure.
- Fig.82 Existing Fragmentation of Key Opportunity Sites
- Fig.83 Proposed Connectivity Between Key Opportunity Sites
- Fig.84 Stavros Niarchos Foundation Cultural Center .
- Fig.85 Superkilen project .(Topotek 1, BIG, and Superflex 2012)
- Fig.86 Parco Dora project .
- Fig.87 Highline project .(Diller Scofidio + Renfro 2025)
- Fig.88 Urban Furniture and Micro-Interventions. Source : Giorgia Mirabella, "Urban landscape design — city square with benches, January 2025, <https://it.pinterest.com/pin/4714774604255214/>
- Fig.89 Escadas do Monte dos Judeus Project . (depA architects 2025)
- Fig.90 Photograph showing a lively atmosphere on a corner in Mar Mikhael .
- Fig.91 Steps of the Urban Approach.
- Fig.92 General Master Plan of the Intervention.
- Fig.93 Distribution of Urban Functions.
- Fig.94 Key Plan Highlighting the Areas of Plans and Perspectives.
- Fig.95 Axonometric View: Before and After Interventions.
- Fig.96 Detailed plan 1 around the EDL Building and the Fitness Park.
- Fig.97 Section 1 illustrates the fitness park and its spatial configuration.
- Fig.98 Section 2 illustrates the Section 2 illustrates the stairs and the continuity of the intervention.
- Fig.99 Train Station Concept Steps.
- Fig.100 Evolution of Mar Mikhael train station : From transport Hub to inclusive cultural and ecological space for all ages and social classes.
- Fig.101 Train Station Function Distribution.
- Fig.102 Detailed Plan 2 of the Train Station.
- Fig.103 Section 3 illustrates the Train Station.

**All uncited figures are original works, either produced or photographed by the author.**

## References

- ACTED. 2021a. Urban Snapshot: Karantina. June 2, 2021. <https://www.acted.org/wp-content/uploads/2021/08/urban-snapshot-karantina-2021-06-02-final.pdf>
- ACTED. 2021b. Urban Snapshot: Mar Mikhael. June 2, 2021. <https://www.acted.org/wp-content/uploads/2021/08/urban-snapshot-mar-mikhael-2021-06-02-final.pdf>
- Academia.edu. "Urban Development of Beirut." Accessed June 27, 2025. [https://www.academia.edu/34739335/Urban\\_development\\_of\\_beirut\\_web](https://www.academia.edu/34739335/Urban_development_of_beirut_web)
- Al Arabiya English. 2022. "The Ongoing Battle to Save Lebanon's Heritage Damaged by the 2020 Beirut Port Blast." August 4, 2022. <https://english.alarabiya.net/features/2022/08/04/The-ongoing-battle-to-save-Lebanon-s-heritage-damaged-by-the-2020-Beirut-Port-blast>
- Amin, Ash, and Nigel Thrift. 2002. *Cities: Reimagining the Urban*. Cambridge: Polity Press.
- Aouad, David, and Noushig Kaloustian. 2021. "Sustainable Beirut City Planning Post August 2020 Port of Beirut Blast: Case Study of Karantina in Medawar District." *Sustainability* 13 (11): 6442. <https://doi.org/10.3390/su13116442>
- Aouad, D. 2021. "Sustainable Beirut City Planning Post August 2020 Port of Beirut Blast." *Sustainability* 13 (11).
- Atallah, Antoine. 2020. "Déclin du sens de l'espace dans le Beyrouth d'aujourd'hui : un obstacle à l'appartenance et au civisme." *L'Orient-Le Jour*, May 12, 2020. <https://www.lorientlejour.com/article/1217268/déclin-du-sens-de-l'espace-dans-le-beyrouth-daujourdhui-un-obstacle-a-l'appartenance-et-au-civisme.html>
- Ayoub, Joey. 2014. "Fouad Boutros Highway: Some Questions." *Hummus for Thought*, September 23, 2014.
- Beirut Recovery Map. "Beirut Recovery Map." Accessed November 15, 2025. <https://beirutrecovery.org/today>
- Beirut Urban Lab. 2022. *Strategic Framework: An Urban Recovery Strategy for Post Blast Karantina*. Beirut: Beirut Urban Lab. [https://api.beiruturbanlab.com/content/uploads/articles/430~3-BUL\\_Karantina\\_Strategic\\_Framework-min.pdf](https://api.beiruturbanlab.com/content/uploads/articles/430~3-BUL_Karantina_Strategic_Framework-min.pdf)
- Beirut Urban Lab. "Mar Mikhael Square Project." American University of Beirut. Accessed February 2025. <https://beiruturbanlab.com/en/Details/1931>
- Bourdeau-Le Page, Lise. 2011. "Repenser la ville." *Géographie, Économie et Société*. Lavoisier.
- depA architects. "Escadas Monte dos Judeus." Accessed November 30, 2025. <https://www.depa.pt/Escadas-Monte-dos-Judeus>
- Diller Scofidio + Renfro. "The High Line – New York, NY." Accessed November 30, 2025. <https://dsrny.com/project/the-high-line>
- Écochard, Michel. 1963. *Plan Directeur de Beyrouth et de sa Banlieue*. Lebanese Government Commission of Beirut and its Suburbs. Source: Aga Khan Trust for Culture. <https://www.archnet.org/sites/8377>
- El Chamaa, Mohamad. 2021. "Mar Mikhael's Secret Garden: Inside Beirut's Last Orchard." *L'Orient Today*, December 10, 2021. <https://today.lorientlejour.com/article/1284325/mar-mikhaels-secret-garden-inside-beiruts-last-orchard.html>
- El Hage, Christelle, and Yara Rizk. 2023. *The Mar Mikhael Train Station: 125 Years Reflecting an Ever-Changing Beirut*. Beirut: The Lebanese Center for Policy Studies.
- Executive Magazine. 2022. "Beirut Park, Hidden." *Executive Magazine*, August 1, 2022. <https://www.executive-magazine.com/business-all/re-al-estate/beirut-park-hidden>
- Fawaz, Mona. 2009. "Neoliberal Urbanity and the Right to the City: A View from Beirut's Periphery." *Development and Change* 40 (5): 827–852.
- Geeting, Jon. 2014. "What Can Snow Tell Us About Unused Public Spaces?" *Philadelphia Magazine*, February 6. <https://slate.com/human-interest/2014/03/sneckdown-east-passyunk-avenue-philadelphia-what-snow-can-teach-us-about-creating-better-public-spaces.html>

## References

- Gerbal, Laurence. 2016. *Linking Economic Change with Social Justice in Mar Mikhael*. Beirut: Institute for Urban Studies & Research.
- Heart Beirut Foundation. 2023. "We Need More Green Spaces in Beirut." Heart B. <https://heartb.foundation/issue/we-need-more-green-spaces-in-beirut/>
- Hindi, Nadine. 2023. "Map of Beirut Showing the Demarcation Line, the Train Track, and the Different Green Spaces (Developed by Author)." Figure in "City Sediments in Beirut: An Urban Ecology Perspective." ResearchGate. [https://www.researchgate.net/figure/Map-of-Beirut-showing-the-demarcation-line-the-train-track-and-the-different-green-fig1\\_374549838](https://www.researchgate.net/figure/Map-of-Beirut-showing-the-demarcation-line-the-train-track-and-the-different-green-fig1_374549838)
- Human Rights Watch. 2021. "They Killed Us from the Inside": An Investigation into the August 4 Beirut Blast. August 3, 2021. <https://www.hrw.org/report/2021/08/03/they-killed-us-inside/investigation-august-4-beirut-blast>
- Human Rights Watch. 2022. "Lebanon: Rising Poverty, Hunger Amid Economic Crisis." December 12, 2022. <https://www.hrw.org/news/2022/12/12/lebanon-rising-poverty-hunger-amid-economic-crisis>
- INSPIRELI Awards. "To the Reconquest of EDL (Project #2612)." Accessed November 14, 2025. <https://www.inspireli.com/en/awards/detail/2612>
- Latz + Partner. "Parco Dora, Turin, IT." Accessed November 30, 2025. <https://www.latzundpartner.de/en/projekte/postindustrielle-landschaften/parco-dora-turin-it/>
- Lefebvre, Henri. 1968. *Le droit à la ville*. Paris: Anthropos.
- Lefebvre, Henri. 1974. *La production de l'espace*. Paris: Éditions Anthropos.
- Levy, Albert. 2015. "Ville et espace public." *Urbanisme*, July 2015.
- Maronite Foundation. "Timeline of Lebanese History." Maronite Academy. Accessed November 30, 2025. <https://maronitefoundation.org/uploads/MaroniteAcademy/courses/Chronology%20of%20the%20Lebanese%20History.pdf>
- INSPIRELI Awards. "To the Reconquest of EDL (Project #2612)." Accessed November 14, 2025. <https://www.inspireli.com/en/awards/detail/2612>
- Latz + Partner. "Parco Dora, Turin, IT." Accessed November 30, 2025. <https://www.latzundpartner.de/en/projekte/postindustrielle-landschaften/parco-dora-turin-it/>
- NAHNOO. 2020. Achrafieh and Mar Mikhael: Youth-Led Architectural Heritage Mapping in Beirut. Beirut: NAHNOO. Accessed May 2025. <https://nahnoo.org/wp-content/uploads/2025/05/Ashrafieh-and-Mar-Mikhael-Low1.pdf>
- Geeting, Jon. 2014. "What Can Snow Tell Us About Unused Public Spaces?" *Philadelphia Magazine*, February 6. <https://slate.com/human-interest/2014/03/sneckdown-east-passyunk-avenue-philadelphia-what-snow-can-teach-us-about-creating-better-public-spaces.html>
- Stavros Niarchos Foundation Cultural Centre / Renzo Piano Building Workshop. *ArchDaily*, July 4, 2016. <https://www.archdaily.com/790678/stavros-niarchos-foundation-cultural-centre-renzo-piano-building-workshop>
- The Photorientalist. 2020. "Chemin de Fer: The Beirut to Damascus Railroad." <https://photorientalist.org/exhibitions/chemin-de-fer-the-beirut-to-damascus-railroad/article/>
- Topotek 1; BIG; Superflex. 2012. "Superkilen / Topotek 1 + BIG + Superflex." *ArchDaily*, June 28, 2012. <https://www.archdaily.com/286223/superkilen-topotek-1-big-architects-superflex>
- Yassin, Nasser. 2018. "The Place That Remains: Reclaiming the Void." In *The Place That Remains: Reclaiming the Void*, edited by Howayda Al-Harithy, 96–103. Beirut: Lebanese American University. [http://sardassets.lau.edu.lb/arc\\_catalogs/the-place-that-remains-proceedings-essay-5.pdf](http://sardassets.lau.edu.lb/arc_catalogs/the-place-that-remains-proceedings-essay-5.pdf)
- Yassin. 2019. "Growth of Beirut City and the Location of Downtown Beirut (Solidere)." In Mary N. Felix, *Heritage Cities after Wars: Between Tradition and Innovation – A Case Study of Beirut in Lebanon*. [https://www.researchgate.net/figure/Growth-of-Beirut-city-and-the-location-of-downtown-Beirut-Solidere-Reference-Yassin\\_fig1\\_363135999](https://www.researchgate.net/figure/Growth-of-Beirut-city-and-the-location-of-downtown-Beirut-Solidere-Reference-Yassin_fig1_363135999)

## **Reconnecting The Urban Fabric**

**Revitalization Of Mar Mikhael**

Sarah Mahfouz