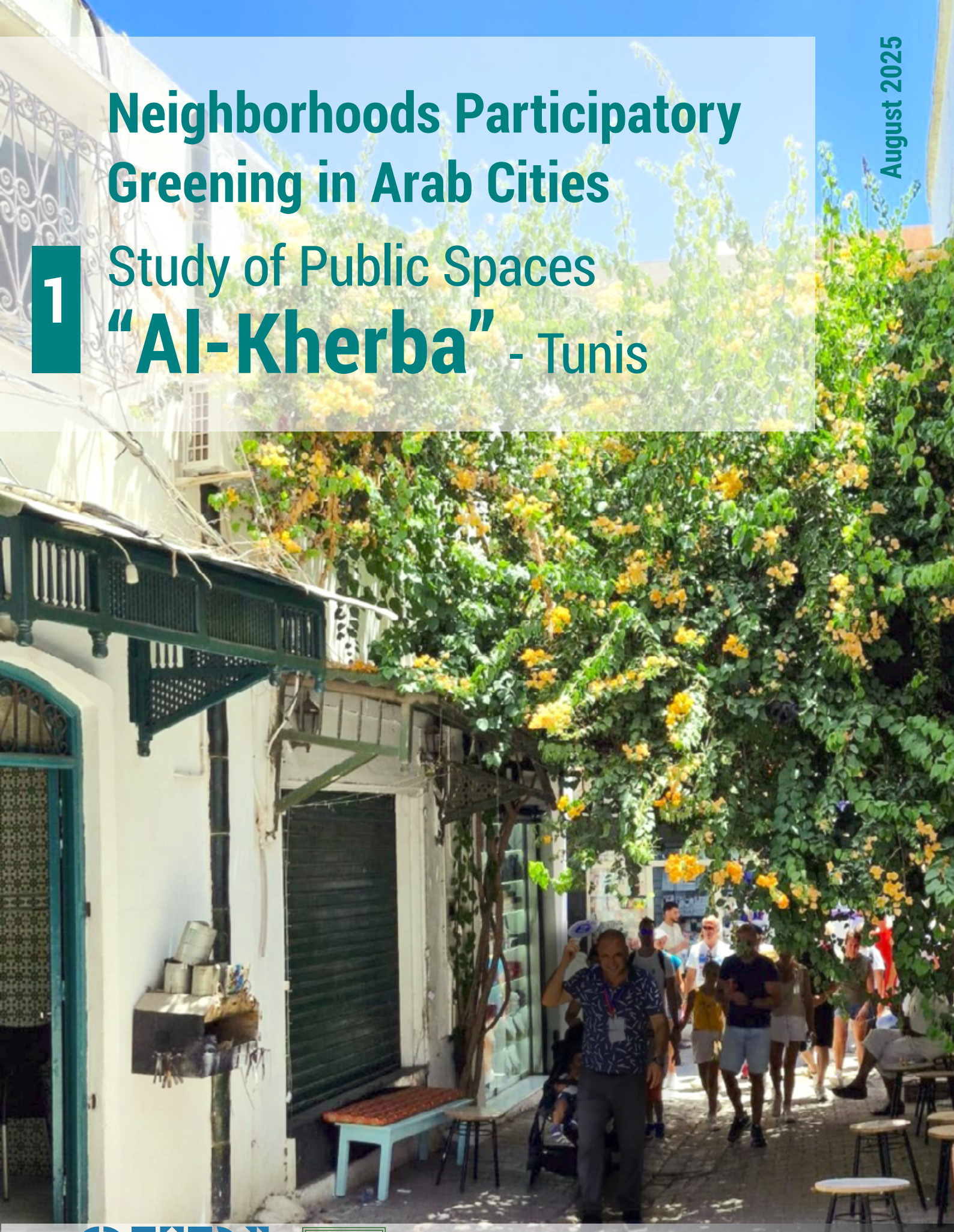
Neighborhoods Participatory Greening in Arab Cities

1

Study of Public Spaces
“Al-Kherba” - Tunis

August 2025



المعهد العربي لإنماء المدن
Arab Urban Development Inst.

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Neighborhoods Participatory Greening in Arab Cities, Study of Public Spaces, "Al-Kherba" - Tunis

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About the Arab Urban Development Institute (AUDI), a regional, non-governmental, and non-profit organization, established in 1980 by the Permanent Bureau of the Arab Towns Organization, with its headquarters in Riyadh, Saudi Arabia. AUDI is the first Arab institution specializing in urban development and municipal support. It has over 650 member cities across 22 countries and focuses on research and studies in urban policies, capacity development and training, and networking in the fields of urban development and municipal affairs.

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Project: "Supporting Greening Activities in Some Arab Cities - Participatory Greening of Neighborhoods." The project aims to support neighborhood greening efforts by piloting and developing knowledge on greening solutions, as well as participatory and contractual models. This report also aims to present and discuss the framework and methodology for participatory neighborhood greening, which was applied in the context of a pilot project to study the Kherba area in Tunis. This approach could help address urban greening challenges not only at the neighborhood level in Tunis but also more broadly in cities across the Arab region.
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Executive Summary

As part of its Urban Policy Research Program, The Arab Urban Development Institute (AUDI) launched an Urban Living Lab, with its first project on Participatory Greening of Neighborhoods in Arab Cities. The initiative aims to support greening efforts in neighborhoods by piloting and developing knowledge on greening solutions and participatory and contractual models.

This publication presents and discusses a framework and methodology for participatory neighborhood greening, as applied in a pilot project conducted in Tunis, Tunisia. The approach offers a potential contribution to addressing urban greening challenges at the neighborhood scale, both in Tunisia and across cities in the Arab region. The intervention area chosen in Tunis is Al-Kherba, an urban open space located at the interface between the traditional medina and the European quarter, in the city center.

The report is structured in three main parts, each corresponding to a distinct analytical scale. Section 1 addresses the broader concepts of public and green space in Tunisia, with a focus on Greater Tunis. The analysis highlights how historical and political factors have shaped the creation and use of these spaces. It notes that while municipalities are the primary agents responsible for green space development and maintenance, they often face significant challenges due to limited financial and human resources. The section also shows that, despite possessing a strong urban identity and notable assets such as parks and landmarks, Tunis suffers from an unequal distribution of green spaces.

Section 2 focuses on the municipality of Tunis and the neighborhoods surrounding Al-Kherba. It analyzes public and green spaces in the area and identifies key stakeholders. The assessment of Al-Kherba reveals its potential as a rare open space within a highly dense urban fabric. Although some development efforts have been made, the site still requires a more comprehensive urban planning intervention. Any future strategy must recognize Al-Kherba's layered identity, support spatial equity in green space distribution, consider the diversity of uses and users, and promote inclusive citizen participation amid constraints in public maintenance capacity.

Section 3 offers a detailed spatial analysis of Al-Kherba site. The space holds a multifaceted identity, with varied patterns of appropriation depending on the user group. The governance assessment points to the need for coordination among multiple actors across stages; diagnosis, design, maintenance, and programming. Collaboration must be aligned with the final development strategy to ensure that Al-Kherba becomes a vibrant, inclusive, and resilient urban space. The section also outlines preliminary design proposals and defines key next steps for implementation.



EXECUTIVE SUMMARY 5

LIST OF FIGURES 8

LIST OF TABLES 11

INTRODUCTION 12

Introduction 14

Research Objective 14

A Framework for Participatory Neighborhood Greening 14

Al-Kherba as a Pilot Case Study in Tunis 15

Defining and Promoting Green Spaces: Key Considerations 16

Stakeholder engagement 17

Methodological Approach 18

1 PUBLIC SPACES AND GREEN AREAS IN TUNISIA: HISTORICAL AND URBAN TRANSFORMATIONS 20

1.1. Introduction 22

1.2. Green Spaces as Public Spaces: A Tunisian Perspective 22

1.3. Public and Green Spaces in Tunisia: Conceptual Evolution and Practical applications 22

Historical Evolution of Public and Green Spaces 22

Post-Independence Transformations 26

A New Institutional Dimension of Public Spaces 26

1.4. Cultural Practices and Their Influence on Public and Green Spaces 28

a. Availability, Accessibility, and Connectivity Deficits 31

b. Safety, Gender Inclusivity, and Diversity of Uses 32

c. Infrastructure Degradation and Environmental Pressures 32

1.5. Current Challenges Facing Green Spaces in Tunisia 30

1.6. Stakeholders in the Production of Public Space 32

1.7. Synthesis and Key Recommendations 33

Key Findings 33

Strategic Recommendations for Al-Kherba Project 33

2 TUNIS: URBAN HISTORY, EXPANSION, AND GREEN INFRASTRUCTURE 34

2.1. Introduction to Urban Development in Tunis 36

2.2. Greater Tunis: Patterns of Urban Expansion 36

2.3. Spatial Inequalities in Green Space Distribution 37

2.4. Urban Green Spaces in The City of Tunis 38

Geographic and Environmental Context 38

Urban Development Patterns Across Diverse Districts 39

The Role and Status of Public and Green Spaces 40

2.5. Conclusion: Unequal Distribution of Green Spaces in Tunis 43

3 UNDERSTANDING AL-KHERBA IN ITS URBAN CONTEXT 44

3.1. Methodology and Analytical Framework 46

3.2. Characteristics of The Site of Al-Kherba 46

Al-Kherba Open Space: A Vacant Gap in the Historic Medina 47

Historical, Social and Symbolic Significance 48

Functional Transformation into a Parking Area 49

3.3. Urban Morphology of The Study Area 50

Contrasting Morphologies and Urban Textures 50

Land Use Patterns and Functions 54

3.4. Al-Kherba: A Socio-Economic and Spatial Hub 56

Social infrastructure and Community Facilities 56

Socioeconomic activities 60

Mobility, Transportation and Access Patterns 60

a. Mobility Patterns on the Medina 60

b. European City Influence on Mobility 61

c. Proximity to Public and Shared Transport 61

d. Accessibility Challenges 61

e. Synthesis of Findings and Implications for Public Space Design 61

Contents

Ownership and Land Management Structures ... 62
Place de Castille ... 63
The Triangular Green Zone: Perception and Potential ... 64
The Paved Square: Usage and Character ... 65
3.6. Local Governance, Institutional Influence, and Prospects for Participation ... 66
Governance Structures and Local Institutions ... 66
Local Participation and Potential Public Engagement ... 68
Development Plans and Strategic Projects ... 68
3.7 Conclusion: Al-Kherba for Inclusive and Sustainable Urban Renewal ... 69

4 Assessment and Potential Development of Public Green Spaces in Al-Kherba ... 70
4.1. Introduction and Assessment Methodology ... 72
4.2. Visual and Environmental Diagnosis of the Area ... 73
An area blighted by waste, recurrent flooding and urban heat ... 73
Lighting Deficiencies and Nighttime Use ... 73
Perceptions of Safety and Social Cohesion ... 73
Urban Wildlife and Seasonal Visitors ... 73
Waste Management Challenges ... 73
4.3. Spatial Mapping of Existing Vegetation and Green Infrastructure Notes ... 79
4.4. Potential for Green Infrastructure Development ... 79
Strengthening Green Corridors through Al-Kherba ... 79
Al-Kherba as a Potential Urban Lung ... 80
Towards a Broader Green Network ... 81
Opportunities for Micro-greening Interventions ... 82
4.5. Site-Specific Analysis: Needs and Opportunities for Development ... 82
Main School Entrance and Coffee Shop Area ... 83
Rear Entrance and Dumping Site Area ... 84
Triangular Green Node and Connecting Spaces ... 85
Redeveloping Underutilized Spaces ... 86
4.6. Additional Micro-Interventions Sites ... 88
4.7. Governance, Institutional Frameworks and Stakeholders Mapping in Al-Kherba ... 92
Institutional Actors and Roles ... 92
Governance Framework for Al-Kherba Greening Project ... 94
Governance and Management of Additional Interventions ... 96
Conclusion: Strengthening Governance in Public Space Future Management ... 96
4.8. General Guidelines and Considerations for Greening Strategies ... 97
4.9. Conclusion and Lessons Learned ... 97

5 Conclusion and Recommendations ... 98
5.1. Summary of Key Findings ... 100
5.2. Next Steps for Future Actions ... 100
5.3. Spatial Allocation of Future Actions ... 100
Spatial Allocations ... 100
Recommendations for Al-Kherba Public Space Design ... 101
5.4. Closing Statement ... 101

REFERENCES ... 102

APPENDICES ... 103





LIST OF FIGURES

Figure 1: Framework for a successful urban greening project 15
Figure 2: Factors influencing public and green spaces 15
Figure 3: Al-Kherba open space 16
Figure 4: Urban greening strategies 17
Figure 5: Picture from Al-Kherba site 18
Figure 6: Spatial analysis framework 19
Figure 1.1: Place de la Kasbah 23
Figure 1.2: Souk El Blat 24
Figure 1.3: Historical evolution of the European city of Tunis 24
Figure 1.4: Models of plantation presence in the medinas 25
Figure 1.5: Green area in the seaside promenade in Bizerte 25
Figure 1.6: Facilities implanted in the periurban forest in Borj Cédria 26
Figure 1.7: Habib Thameur Park in the 60s 26
Figure 1.8: Mediterranean park (new design) and Ennahli Parks (peri-urban forest) 26
Figure 1.9: Main public spaces and gathering neighborhoods in Tunis untill 2011 27
Figure 1.10: Citizen involvement in plantation campaign in Soukra 27
Figure 1.11: Cafes occupying an alley's public space with a tree shading 28
Figure 1.12: Issues of informal occupation 29
Figure 1.13: Vendors occupying plantation areas 29
Figure 1.14: Rows of palm trees lining the coastal promenade in Mahdia 31
Figure 1.15: A standing tree in Chebba, Mahdia 31
Figure 1.16: Main stakeholders in public space production and management 32
Figure 1.17: Stakeholder interest and influence on public space management 33
Figure 2.1: Ancient gate to the medina 36
Figure 2.2: French colonial-era building situated within the European quarter of the Medina 36
Figure 2.3: Geographic location of Greater Tunis 37
Figure 2.4: Map showing the percentage of urbanization by district in 2014 37
Figure 2.5: The spatial distribution and planning of green spaces programmed by urban planning documents in Greater Tunis 38
Figure 2.6: The administrative boundaries of Tunis governorate and municipality 38
Figure 2.7: Adapted Google Earth Satellite image with municipal boundaries 39
Figure 2.8: The center of Tunis and its interface with the lake 39
Figure 2.9: Land use distribution in Tunis city 40
Figure 2.10: Map showing features of Tunis city 41
Figure 2.11: Avenue Habib Bourguiba in Tunis 41
Figure 2.12: El Menzah neighborhood 42
Figure 2.13: Distribution of urban green spaces by type in the municipality 42
Figure 3.1: Location map of the study area relative to Medina and the European City 46
Figure 3.2: Location map of Al-Kherba public space relative to the Medina and the European city 47
Figure 3.3: Map showing the Situation of Al-Kherba Public Space and the Study area relative to Medina and the European City 47

Figure 3.4: Map of Al-Kherba public space boundaries 48
Figure 3.5: Map showing the situation of Al-Kherba public space relative to landmarks 48
Figure 3.6: The sit in Al-Kherba that was once transformed into the Medina's largest parking lot following the bombing of the area 49
Figure 3.7: Map of solid and void of the study area 49
Figure 3.8: Urban morphology of the study area with contrasting features in the Medina part (left) and European part (right) 50
Figure 3.9: Site section 50
Figure 3.10: Urban form convergence 50
Figure 3.11: A collection of scenes highlighting key urban features of the Medina, including its architectural character 51
Figure 3.12: Photo of a neglected building taken from Al Jazira Street 51
Figure 3.13: Photo of a well-maintained building taken from Spain Street 51
Figure 3.14: Photo of a neglected building taken from the medina near Al-Kherba 52
Figure 3.15: Photo of a better condition from the medina near Al-Kherba 52
Figure 3.16: Visible decay on an ancient residential building's facade in the Medina 52
Figure 3.17: Informal commercial activities within a cloth-covered street 53
Figure 3.18: Contrasting community spaces at Al-Kherba 53
Figure 3.19: Shops and vendors under the covered Rue de la Commission 54
Figure 3.20: Spread of cultural and social services 55
Figure 3.21: Bab Bhar: a vibrant urban hub 56
Figure 3.22: Public space and transport services at Al-Kherba 57
Figure 3.23: Spatial context and street interfaces of Al-Kherba public space 57
Figure 3.24: Vendors occupying the public space in Spain Street near Al-Kherba open space 58
Figure 3.25: Al-Kherba main urban infrastructure and public amenities 58
Figure 3.26: Historical buildings around Al-Kherba 59
Figure 3.27: Socioeconomic interactions around Al-Kherba 60
Figure 3.28: An elderly man (bottom) and another younger man (top) transporting goods on wheelbarrows, an adaptation to Medina's narrow, vehicle inaccessible streets 61
Figure 3.29: Map showing the main public transportation nodes near Al-kherba 62
Figure 3.30: Informal street vendors carry limited merchandise quantities 62
Figure 3.31: Shop at Souk Blat market 62
Figure 3.32: Place de Castille 63
Figure 3.33: Environmental and aesthetic degradation in Al-Kherba open space 64
Figure 3.34: Commercial activities affecting public space 65
Figure 3.35: Stakeholders' diagram 66
Figure 3.36: Matrix of stakeholders' influence vs. interest 67
Figure 4.1: Approach for green spaces analysis 72
Figure 4.2: A holistic approach for a structured spatial analysis 72
Figure 4.3: Rainwater accumulated on impermeable ground 73
Figure 4.4: Public amenities Around Al-Kherba 73

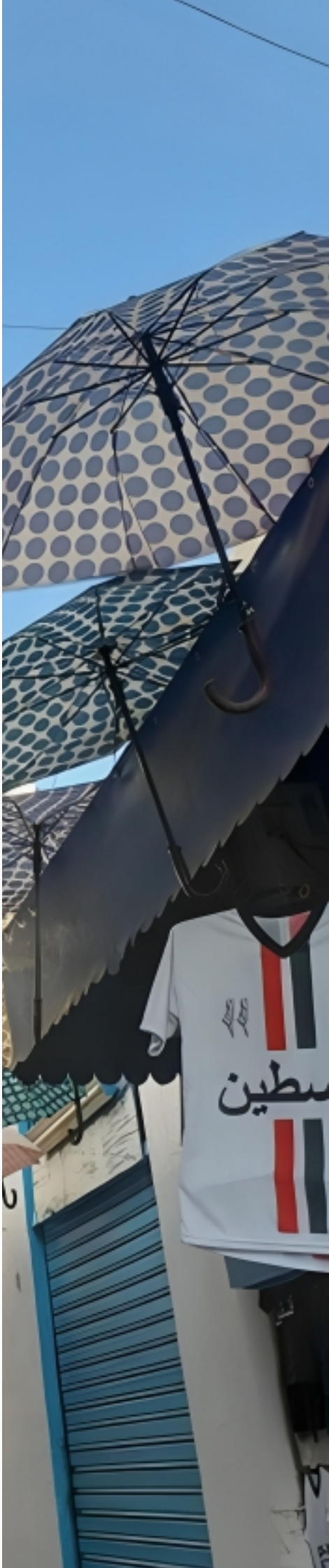




Figure 4.5: Cats at Place de Castille neighborhood 73
Figure 4.6: Waste system in the area 74
Figure 4.7: Accumulation of trash in the study area 75
Figure 4.8: Waste collection and vehicle accessibility 76
Figure 4.9: Plastic and cardboard used by the vendors and left in the site 78
Figure 4.10: Barbacha collecting plastic left by vendors 78
Figure 4.11: The municipal waste depot 78
Figure 4.12: Tree providing shade in the European city 78
Figure 4.13: Mapping of trees in the study area 79
Figure 4.14: Trees planted in the schoolyard and visible from the open space of Al-Kherba 79
Figure 4.15: Urban green infrastructure along the study area 80
Figure 4.16: Plantations in the Medina near Al-Kherba open space 81
Figure 4.17: Festivals banner in Place de Castille 81
Figure 4.18: Nahj El Bousta 82
Figure 4.19: Potential zones of interventions 83
Figure 4.20: Strategic interventions enhancing spatial and social functionality 83
Figure 4.21: Main school entrance 84
Figure 4.22: Underutilized vacant land at the back school entrance 84
Figure 4.23: Space overlooking the dump-site 85
Figure 4.24: Green triangular connecting node 85
Figure 4.25: Example of identified uses of public space 86
Figure 4.26: Fragmented urban streetscape in Al-Kherba, marked by informal structures, irregular signage, and overlapping pedestrian and vehicular flows 87
Figure 4.27: A vision for a pedestrian-friendly Al-Kherba 87
Figure 4.28: Proposal prepared by ISTEUB students 88
Figure 4.29: Air circulation and exposure to sun in the proposed design 89
Figure 4.30: Additional sites for limited interventions 89
Figure 4.31: Sidi Ameur Square 90
Figure 4.32: Open space (Sidi Ameur mosque square) near Al-Kherba, potential and needs 91
Figure 4.33: Potential for Sidi Ameur Street combining plantations and urban seats 91
Figure 4.34: Potential for Nahj Al Bousta place, more plantation in a cleaner place 92
Figure 4.35: Various stakeholders involved in the area's development and upkeep 93
Figure 4.36: Discussions with local actors about the future of the site 94
Figure 4.37: Identified problems 95
Figure 4.38: Matrix of potential contributions of key actors to the governance process 96
Figure 5.1: The 4 sub-zone locations within Al-Kherba area 101
Figure 5.2: Locations of the proposed 15 smaller-scale tactical interventions 101

LIST OF TABLES

Table 1.1: Quantitative objectives for green spaces in Tunisia 23
Table 1.2: Typological classification of green spaces in Tunisia 30
Table 2.1: Green space area, reforestation area, nursery, cemetery area, and green space ratio per inhabitant in the Municipality of Tunis (2022) 43



INTRODUCTION



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Introduction

Cities across Tunisia and the broader Arab region face ongoing challenges in creating and maintaining accessible and sustainable green spaces. This report focuses on addressing these challenges through participatory urban greening, using the neighborhood of Al-Kherba in the Medina of Tunis as a practical case study. It forms part of a broader Urban Living Lab initiative aimed at promoting greener urban environments through local participation and context-sensitive planning.

Greening neighborhoods has become one of the most critical urban development strategies for enhancing the quality of life and promoting environmental sustainability (Mwanzu et al., 2023). In addition, it fosters social cohesion and encourages community involvement in the governance of its living environment. Green spaces offer numerous benefits, including improving air quality, providing recreational and interaction areas, and mitigating the urban heat island effect (Lee et al., 2014). However, the challenges associated with greening urban areas, such as limited space in historical or informal neighborhoods, financial constraints, and maintenance difficulties by local authorities, can be significant.

To counter these challenges, the importance of participatory processes in both the design and long-term maintenance of green spaces cannot be overstated. Engaging local communities in the planning and upkeep of these areas ensures that the spaces meet the needs and preferences of residents, fostering a sense of ownership and responsibility. Moreover, participatory processes can lead to more innovative and sustainable solutions, leveraging local knowledge and resources. By prioritizing community involvement and bringing together local authorities, local associations, businesses and the population around concrete projects that improve the living environment, greening initiatives can create more resilient, vibrant, and sustainable urban environments (Nikolaidou et al., 2023).

In the context of Arab cities, there remains a significant need for increased attention and action in this regard (Makhzoumi, 2020). Urban greening faces critical challenges in Arab cities, where several distinctive factors exacerbate the issue. The dominance of arid and semi-arid zones limits the availability of water and suitable vegetation, posing significant ecological constraints. Furthermore, weak decentralization often undermines the capacity of local governments to implement and sustain greening initiatives effectively. Cultural systems that prioritize private over public spaces complicate efforts to establish and maintain accessible green areas. Additionally, the prevalence of informal urbanization in many countries restricts opportunities for outdoor space planning and development, leaving little room for the creation of well-designed, functional green spaces. While these challenges reflect common structural and cultural factors across Arab cities, the realities on the ground vary significantly from one city to another, requiring nuanced and context-sensitive strategies that acknowledge the diverse socio-economic and environmental conditions within the region.

Research Objective

This publication aims to present and discuss a framework and methodology of participatory neighborhood greening that was applied in the context of a pilot project in Tunis, Tunisia. This methodology could contribute to dealing with urban greening challenges at the level of neighborhoods in Tunisia and, more broadly, in cities in the Arab region. This framework is flexible to allow adaptations to consider the particular context of each city. The pilot is part of a larger Urban Living Lab project on participatory greening of Arab cities and is currently under implementation in 3 cities in the region (see Annex 1).

A Framework for Participatory Neighborhood Greening

Leading a Participatory Neighborhood Greening project requires first establishing an analytical framework that guides the reflection and action (figure below). This framework helps define the intervention by focusing on the following dimensions:

- The Object of Intervention: What constitutes a green space in an urban environment? What typologies of green spaces exist in urban neighborhoods? How are these spaces interconnected? What services do they provide to the neighborhood? Are green spaces public? Are public spaces green? How can potential sites for greening processes be identified and delineated?
- The Levers of Intervention: What can be changed in the current spatial configuration to ensure more green spaces that would have a positive impact on neighborhoods? What opportunities and challenges are there, considering the present spatial and social context and constraints?
- Action Implementation: With which actors can these actions be carried out? What is the distribution of responsibilities between institutional and other actors? What role can associative, business and community structures play in this regard? How do these responsibilities evolve from the diagnosis phase to the design, maintenance, and animation of the spaces? What participatory and contractual processes and techniques will be necessary to ensure the engagement of actors and beneficiaries and their commitment to the long-term effort to sustain these green spaces and their social and environmental services?

Also, when considering green spaces in an urban context, it is important to keep in mind a variety of influences that lead to their emergence and shape their form, uses, and sustainability. The diagram below highlights the interconnected factors influencing public spaces. Community Participation emphasizes the role of residents in shaping these spaces, while Cultural Heritage underscores the impact of historical and cultural traditions. In the city of Tunis, European Influence reflects the legacy of colonialism on public space design, and Modern Urbanization addresses contemporary planning challenges.

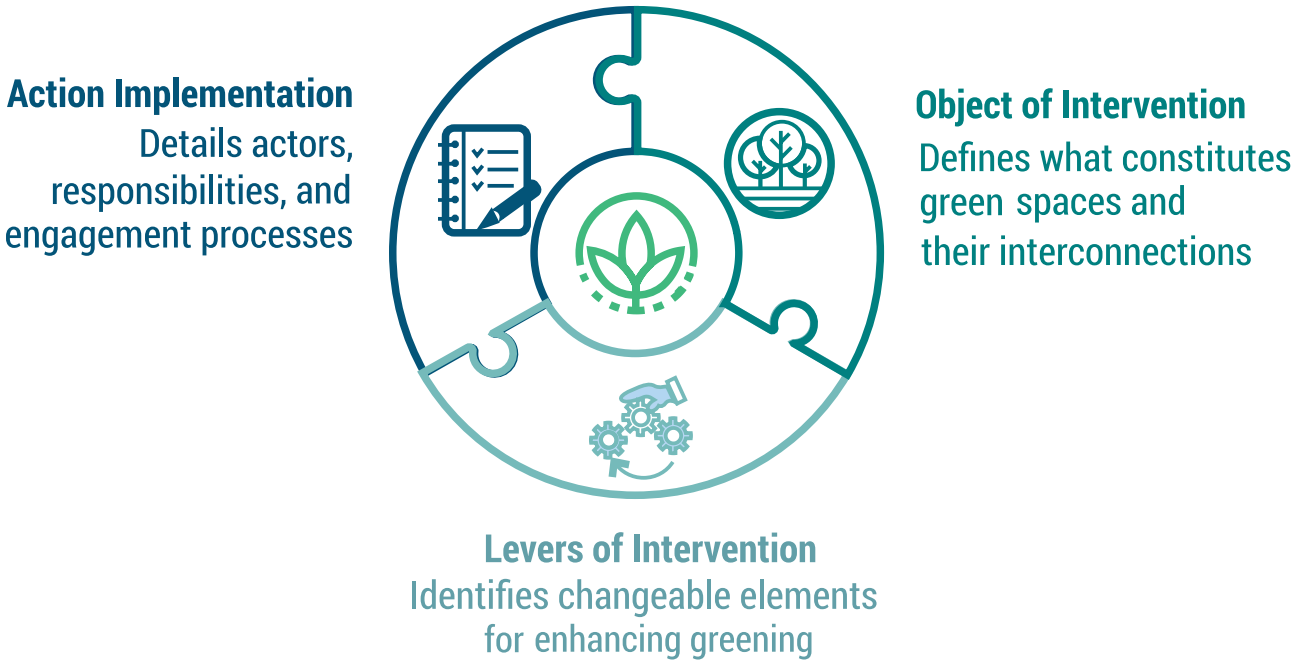

Figure 1: Framework for a successful urban greening project
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Governance focuses on the policies and regulations managing these areas, while Stakeholder Engagement highlights the collaborative efforts of diverse interest groups. Together, these elements demonstrate the complex interplay of historical, social, and institutional factors in shaping public spaces.

Al-Kherba as a Pilot Case Study in Tunis

The chosen area for the interventions in Tunisia is Al-Kherba, an urban open space situated at the interface between the traditional medina[1] and the European city in the City Center of Tunis. The choice of Awl-Kherba as the focus of the Tunis initiative of the project is not incidental.

1 The term "Medina" means "city" in Arabic, but it is used to refer to the old part of the city that corresponds to the Arab-Muslim heritage. This term is common in other Arab countries as well, for example, Morocco and Algeria.

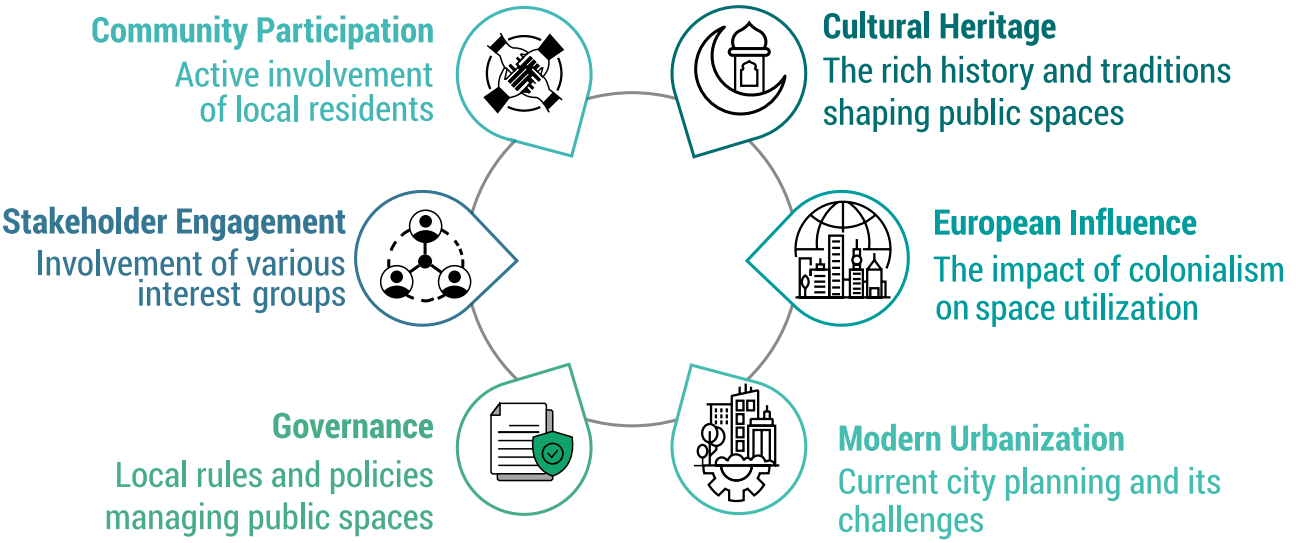

Figure 2: Factors influencing public and green spaces
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Tunisian public spaces have long been shaped by a rich cultural heritage, yet European influence during and after colonization has left many of these spaces neglected or repurposed while producing new ones. The traditional understanding of public versus private space in Tunisia is more intricate than it initially seems. What might appear as a scarcity of public spaces is often the result of these spaces being repurposed or privatized for specific uses, such as mosques, hammams, souks (markets) or cafés, which can limit their accessibility. Amid modern urbanization, many planning efforts have struggled to incorporate innovative models that align with local social practices, contributing to the degradation or privatization of public spaces. Historically, Al-Kherba has served as a vital crossroads between the Medina and the modern European city of Tunis. Its distinct urban fabric combines both old and new elements. Additionally, Al-Kherba has a unique mix of formal and informal economic activities, further highlighting the tension between governance, privatization, and public accessibility.

By focusing on Al-Kherba, the aim is to explore how local governance structures, stakeholder engagement, and community participation can come together to create vibrant, accessible public spaces in neighborhoods at the intersection of tradition and modernization. In addition to the question of the role of public spaces in urban development, there arises the issue of the place of green spaces within contrasting models of urban production, namely, the medina, characterized by a limited presence of vegetation within its walls, and the European city, marked by tree-lined streets and planted open spaces. The study was conducted to test and implement the Participatory Neighborhood Greening framework in Al-Kherba area, requiring several critical decisions throughout the project.

Defining and Promoting Green Spaces: Key Considerations

When considering an urban neighborhood like AlKherba, one might think primarily of three types of green spaces among the ones defined in literature[2].

The first, "Linear Public Greening," relates to street-level greening that is observed in many cities, where municipalities tend to plant a continuity of trees and other green spaces along main streets and avenues, roundabouts, etc. These might represent a substantial green footprint in a city. However, developing and maintaining green spaces is a costly and complex task that weighs heavily on municipal budgets and operations. Consequently, in most cities, such landscaped street greening is usually focused on the main avenues, the business districts and the most well-off neighborhoods.

The second type of green spaces, "Green Lungs", might comprise small parks and public gardens. These green public spaces are essential for neighborhoods as they provide green oases in the heart of the city. However, their most distinctive added value is that they represent spaces of sociability in the neighborhood. They could be used by people of different ages and genders for different purposes and could be designed in a way that reflects the main functionalities that the neighborhood inhabitants would like to see in their neighborhood. They are usually taken in charge in terms of development, management and maintenance by the municipality. However, in many cases, local associations might

2 Several classifications are produced in literature (Swanwick et al., 2003; De Vilmorin, 1976)



Figure 3: Al-Kherba open space
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be involved in its management and maintenance, while local businesses could sponsor some of its activities or aspects of its maintenance.

The third type involves "Micro-greening" interventions, which take various forms such as planting in leftover spaces, schoolyards, sidewalks with potted plants, facades of residential buildings, or rooftops. Typically initiated by residents, local businesses, or associations, these private efforts aim to improve the quality of the immediate living environment. When micro-greening interventions occur frequently throughout a neighborhood, the overall visual character and atmosphere of the area may be positively influenced. Some municipalities actively encourage these initiatives by organizing events such as competitions for the "most beautiful or green facade."

Nonetheless, regulatory codes often impose limitations on such activities. Moreover, sustaining interest and commitment to greening efforts by private entities proves challenging in neighborhoods with limited resources or high population turnover. Mapping neighborhood spaces and understanding their origins, influencing factors, potential for greening, and responsible actors is therefore a critical step.

Levers of intervention: Different types of greening activities require different skills, knowledge, resources and infrastructures to be carried out. Different types of plants require different amounts of irrigation, sunlight, supervision and protection against climatic stress, insects and diseases. Edible plants should be treated differently from aesthetic ones, as they could be recuperated for local consumption or for sale on the market. Water management techniques could rely on public networks but also could include rainwater capture. Photovoltaic solar systems could be installed to ensure that a water pump works efficiently or to light a public garden. Recycling through the segregation of organic waste and composting could also be useful. Moreover, since planting actions alone cannot ensure the expected functionalities of green and public spaces; actions should also extend to the landscaping of façades, the mineral paving of grounds, urban furniture, and public lighting. All these issues and possible outcomes require technical and design decisions to be made. Yet, who holds the authority to make decisions concerning the development of a green space that is used by diverse social groups and whose management and activation require the involvement of multiple stakeholders? Such questions underscore the significance of adopting a participatory approach in the implementation of these processes and emphasize governance as a crucial framework for collective decision-making. Governance solutions are essential to implement, manage and ensure the sustainability of these interventions.

Stakeholder engagement

For each action to be undertaken, it is necessary to identify the stakeholders to be involved in the different phases (diagnosis, design, implementation, maintenance, and animation). This requires a fine understanding of the overall local governance system in the country as well as a detailed analysis of the local stakeholder mapping in the targeted neighborhood.

The general intervention approach proposed by the Urban Living Lab favors two major action modalities:

1. The development of a public garden or green space (urban lung), which, due to its size, can serve as a focal point for the entire targeted neighborhood, with a level of landscaping and planting capable of ensuring a significant transformation in terms of greenery and space usage.

2. Limited tactical interventions, of a light nature (micro-greening), focusing mainly on poorly integrated residual nodes and spaces within the urban fabric, aiming to enhance their greenery on one hand and ensure better integration and appropriation by residents and users.



Figure 4: Urban greening strategies
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The primary objective of such a dual mode of action for greening neighborhoods is to leverage the full potential offered by the study area, targeting diverse and complementary categories and intervention sites, which is likely to ensure a significant increase in the desired outcomes. From a knowledge and expertise standpoint, this dual scale of intervention coupled with the multiplicity of sites will provide the opportunity to implement the identified approach in a variety of spatial contexts and a plurality of actor configurations. This will allow for feedback on the approach, its contributions, its limitations, and the conditions for its adaptation to various configurations, thereby enhancing the learning process for the capitalization and generalization of the approach.

This case study of Al-Kherba area in Tunis serves to test initial hypotheses regarding the variability of intervention scales and the significance of broad stakeholder participation in greening processes. It also offers an evaluation of the applied methodological process, following a learning-oriented logic intended to support adaptation in other contexts.

Methodological Approach

The preparation of this report is the result of the combination of different methodological tools and activities, organized chronologically into four steps, which are as follows:

(i) A desk review analysis that examined academic and operational publications related to the concepts of public spaces and their national and local policies in Tunisia.

(ii) The organization of a workshop in Tunis in September 2024, involving students and their professors from the Higher Institute of Environmental Technologies, Urban Planning, and Building (ISTEUB, University of Carthage) in collaboration with the Municipality of Tunis and other universities (TU Berlin, Lebanese University). The "Redefining Public Space in Al-Kherba" workshop was held in Tunis from September 21-28, 2024, and funded by the German Academic Exchange Service-DAAD. It first tried to better understand Al-Kherba through participatory observation on the site, surveys conducted, and interviews with



Figure 5: Picture from Al-Kherba site
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institutional stakeholders (Municipality, the Association for the Preservation of the Medina, and the staff of the Primary school), experts, and associations, in addition to different groups of space users (vendors, inhabitants, and visitors). The workshop also provided an opportunity to reimagine its public spaces in a way that aligns with both community needs and modern urban governance practices. The collective expertise ranges from urban governance and design to socioeconomic analysis, drawing on diverse perspectives from Tunisia, Germany, Lebanon, and other partner countries.

(iii) The extension of the workshop's activities from September to December 2024, with the participation of ISTEUB students. The students made precise identifications of specific issues for each intervention site and created a localized mapping of stakeholders. They also sought to obtain their commitment for the design and maintenance. A detailed description of the methodology of the fieldwork is presented in Section 3 of this report.

(iv) Further investigation and analysis by a team of professional researchers that used the students' work to capture trends, lessons learned and recommendations, and allowed the drafting of the report.

This report presents the key findings derived from the analysis conducted within the previously outlined framework and across three spatial scales. Section 1 explores the concepts of public and green spaces in Tunisia, with a particular focus on the capital's metropolitan area, Greater Tunis. Section 2 offers an in-depth analysis of the Municipality of Tunis, examining the distribution and management of public and green spaces as well as identifying the main stakeholders involved. Section 3 turns to the neighborhoods surrounding Al-Kherba area, providing a contextual reading of their spatial and social structures. Finally, it delivers a focused analysis of the specific spaces targeted for development, detailing their physical characteristics and current uses.

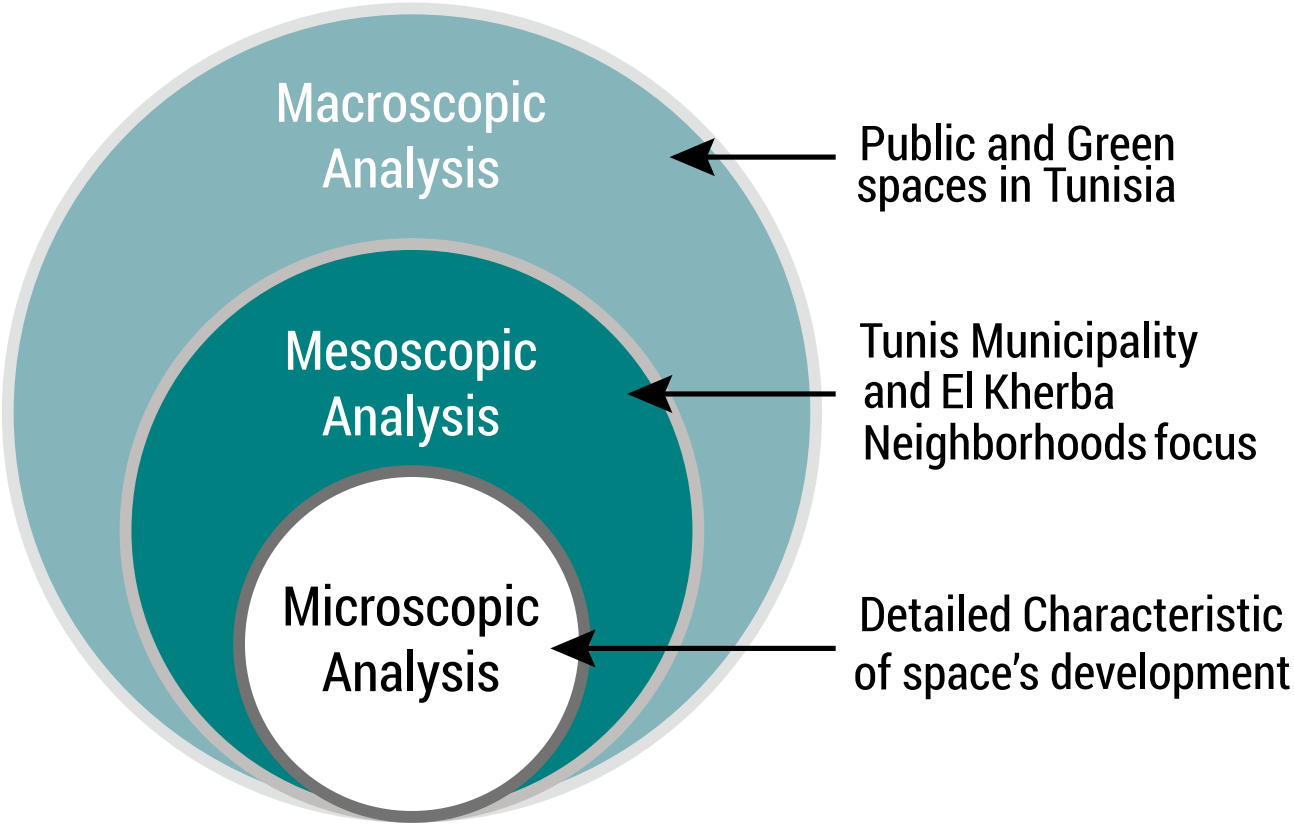

Figure 6: Spatial analysis framework
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1 PUBLIC SPACES AND GREEN AREAS IN TUNISIA: HISTORICAL AND URBAN TRANSFORMATIONS



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1.1. Introduction

This section aims to trace the history of Tunisia's public and green spaces, examine their evolving nature and challenges, and analyze regulatory tools used by municipalities, with a particular focus on Tunis. It emphasizes the layered development of public spaces influenced by diverse cultural and historical factors, including social practices that sometimes clash with recent urbanization efforts, resulting in accessibility and usage challenges. The research combines historical analysis, spatial typology, and stakeholder mapping to explore the creation and evolution of public spaces. It includes a historical overview of different eras, an analysis of urban planning policies, and an examination of stakeholder roles in public and green space governance. Specific public spaces are categorized by typology, with attention to their social and cultural roles.

1.2. Green Spaces as Public Spaces: A Tunisian Perspective

The concept of public space is multifaceted (Paquot, 2009), encompassing both the realm of political debate and all types of urban spaces open to the public. In Tunisia, urban public spaces, particularly those unbuilt and accessible to the public, lack an official definition or dedicated policies and instruments. However, in both discourse and practice, public spaces are understood to include various urban roads (from streets to large boulevards, promenades, and waterfronts), public squares, public gardens, urban parks, and accessible natural areas such as beaches and lakeshores. To this must also be added the informal public spaces, shaped by social practices of encounter in places that have not been officially planned or recognized as public spaces.

In contrast, publicly accessible green spaces are well-defined and supported by specific policies and instruments. These green spaces in Tunisia take multiple forms depending on the scale considered: from planted trees of various sizes in public places to small planted spaces and squares, tree alignments along public roads, public gardens of different sizes, and parks (often forests made accessible through fencing and interior landscaping). It is important to note that rooftops are minimally planted, and agricultural areas, considered private, are not included in the typology of green space use, nor are natural areas such as mountains and forests.

Thus, the definition of green space use in Tunisia necessitates distinguishing between:

(1) "Official" green spaces designated in urban planning and governance processes as public spaces containing plantings, either pre-existing green spaces like urban forests transformed into parks or planted during development projects, and

(2) Overall green cover, which also includes all areas of the city covered by planting, whether agricultural, natural, or even private (such as those in palaces and hotels). Public spaces and green spaces are closely interconnected, reflecting a local approach where greenery often serves as a publicly planted gathering area.

Urban planning policies in Tunisia often refer to green spaces in ways that overlap with public spaces, blurring the lines between areas meant solely for recreation or ecological purposes and those intended for civic and social engagement. Urban planning policies prioritize green spaces rather than specifically defining public spaces, underscoring the unique approach to public greenery in different regions of the country. Urban development plans (PAU)[3], which are urban planning and land use regulation documents prepared by local authorities, serve as the primary regulatory framework for delineating areas designated for green space. Any area marked for green space in the plan cannot be used for another type of occupation. Changing the regulatory designation of a green space can only be done through a presidential decree (Turki and Zaafrane, 2006).

The "Facilities Framework"[4], a normative document introduced by the Urban Planning Law (CATU, 1994), represents the main tool for programming green spaces in the city. It stipulates that any urban planning project must ensure green spaces according to the following provisions: small public garden (1.5 m²/dwelling), public garden (2.5 to 3 m²/inhabitant), and urban public park (for any municipality with more than 50,000 inhabitants or a governorate capital).

In addition to this normative instrument, national public policies have been implemented, such as setting a goal of 15m² of green space per inhabitant that municipalities should achieve or the project to create 100 urban parks across the country, primarily by converting urban and peri-urban forests into accessible spaces while ensuring their protection.

1.3. Public and Green Spaces in Tunisia: Conceptual Evolution and Practical applications

Historical Evolution of Public and Green Spaces

Public spaces, understood as unbuilt urban areas open to public use, have evolved in Tunisian cities through distinct historical phases, shaped by social practices and periods of transformation. In Tunis, four key phases have defined public

3 The main tools of production of public spaces in Tunisia are basically the urban planning documents known as the PAUs, which serve as the principal regulatory framework for the designation and management of green spaces in cities. They are prepared by local authorities and ensure that designated green zones cannot be repurposed for other uses without a presidential decree. Green spaces are either planned and implemented according to PAUs or incorporated into these documents during revisions, particularly for projects initiated after PAU approval or in land development schemes. However, not all green spaces outlined in PAUs are realized, as some areas may remain undeveloped. Consequently, PAUs are essential for determining and shaping the green space system within the urban environment in the absence of specific planning mechanisms.

4 The Facilities framework was never officially approved but has been used since its production by both the administration and urban planners.

Table 1.1: Quantitative objectives for green spaces in Tunisia

Green space category	Objective	Source
Small public garden	1.5 m²/dwelling	Facilities Framework
Public garden	2.5-3 m²/inhabitant	Facilities Framework
Urban green spaces	15 m²/inhabitant	National Policy (stopped in 2011)
Parks	1 park per municipality with more than 50,000 inhabitants 100 parks across the country	Facilities Framework National Policy (Stopped in 2011)

© Facilities framework proposal, 1997

spaces: the Arabo-Muslim period (under Beylik rule), the colonial period, the post-independence period and the period post 2011, each contributing unique forms and interpretations of public and green spaces.

The Medina, central to Arabo-Muslim urban heritage, reflects a clear division between activity zones and residential areas, with public spaces shaped by sedimentary historical processes rather than predefined Western concepts. Research has debated the perceived scarcity of public spaces in Arab-Muslim cities, arguing that such notions stem from incomplete, overly universal analyses (Sebastiani and Turki, 2016; Cattedra, 2002; David, 2002; Navez-Bouchanine, 1993).

In the Medina, public spaces like souks, networks of streets dedicated to crafts and commerce, and cafes extending into open areas demonstrate their multifunctional nature. These spaces, often male-dominated, primarily served as transit routes, while narrow streets and public squares functioned as zones of economic exchange, with exceptions like Kasbah[5] and Halfaouine[6]. For instance, although Place de la Kasbah is a central location for gatherings and events, it is not fully accessible for people with reduced mobility due to the steep slope and lack of appropriate ramps. The public-private division was defined by control rather than legal status, highlighting the complexity of this relationship. Non-traditional spaces such as mosques, hammams, barbershops, and cafes emerged as social and political public spaces, challenging classical Western definitions.

At the time of the establishment of the French Protectorate in 1881, Tunisia was primarily an agricultural country, with few relatively significant urban centers, except for the capital, Tunis. The medinas are known for the absence of large green spaces within the walls of traditional cities. Indeed, known for being the quintessential mineral city, the medinas developed into a tight-knit network of clustered constructions, traversed by a dense network of streets, alleys, and dead ends (Bennour-Azooz et al., 2012). Trees were more commonly planted in the courtyards of houses. The



Figure 1.1: Place de la Kasbah
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connection between housing and nature emerged from the 13th century under the Hafsid dynasty through the practice of holiday residences (Zair, Rejeb, and Donnadieu, 2012), and the implementation of plantations is more commonly noted in the private projects of the Beys[7] on the outskirts of the medina of Tunis (Zair, 2009).

5 The Place de la Kasbah is a significant square in the old town of Tunis, the capital of Tunisia. The Kasbah, situated near the square, is a historic citadel and a UNESCO World Heritage site.

6 In this suburb, located in the northern part of the Medina of Tunis, lies the Halfaouine Square, built following an Italian design.

7 The Beys of Tunisia were hereditary rulers who governed the country from the 17th century to the mid-20th century under the Husainid Dynasty. They served as Ottoman governors initially but later gained significant autonomy, blending local and Ottoman influences in their administration.



Figure 1.2: Souk El Blat
© Authors, 2024

From the 19th century onward, transformations in Tunis resulted from the convergence of political reforms, urban governance changes, and increased international influence. Key events, such as Ahmed Bey's visit to Europe, the establishment of the Municipality of Tunis in 1858, and transport projects, were further accelerated by the French protectorate. These developments expanded city boundaries, improved living conditions, and introduced new public space practices, particularly in European neighborhoods.

At the end of the 19th century, Tunis, as well as the main Tunisian cities (Sousse, Sfax), evolved into a dual city, comprising the traditional Medina and a modern European quarter, where key urban functions shifted and concentrated. The colonial legacy profoundly influenced the form and social role of public spaces, which were designed according to Western models. Boulevard projects (such as the current Avenue Bourguiba in Tunis and the 100-meter boulevard in Sfax) and squares (like the network of squares in Sousse)[8] and parks (notably Belvédère Park in Tunis) have emerged. Initially, boulevards and gardens were leisure spaces for European settlers, but over time, Tunisians adopted these practices as promenades and leisure activities became widespread (Zair, 2009).

With Tunisia's transition to a French protectorate, power shifted to the French government, introducing new legal, institutional, and regulatory frameworks. These changes accelerated urban expansion and positioned public and green spaces as key elements in the city's development. However, the systems governing gardens and parks, while reminiscent of French models, remained modest and incomplete (Zaafrane Zhioua, 2022).

8 In line with the Bab Bhar gate in the Medina of Sousse, Pichon Square opens onto the Cours de la Marine, which leads to Dr. Gallini Square. Together, they form the city's first green nucleus, developed with gardens and squares and featuring sidewalks lined with trees (Ghannouchi 2012).

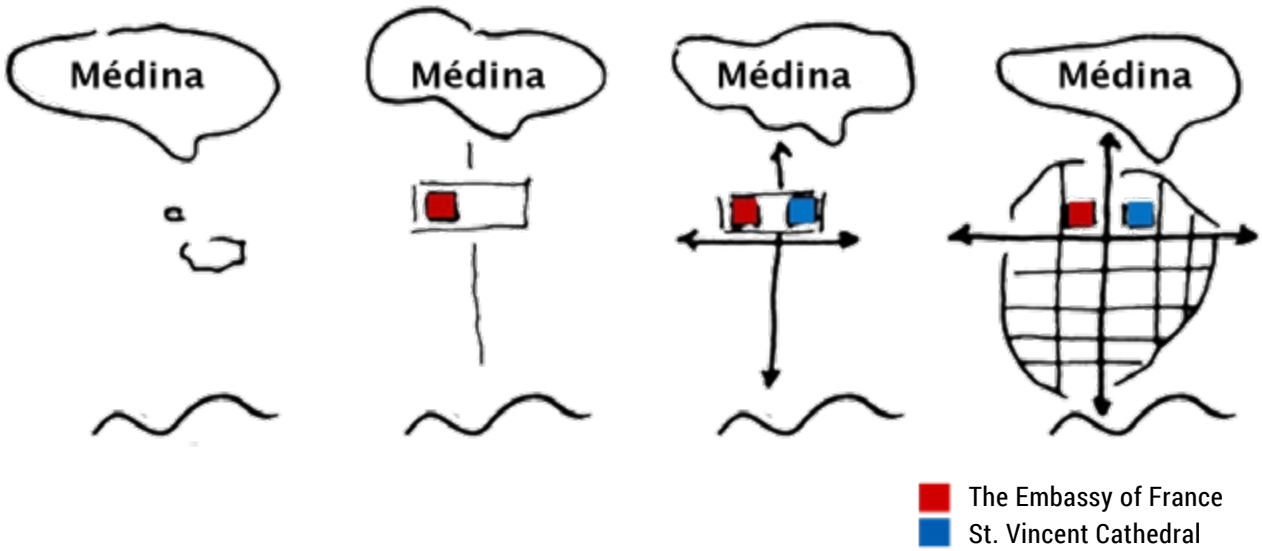

Figure 1.3: Historical evolution of the European city of Tunis
© Asma Halfaoui, 2020







Figure 1.4: Models of plantation presence in the medinas;
Sidi Bou Said (top) and Bizerte (bottom)
© Pexels (top); Authors (bottom), 2024



Figure 1.5: Green area in the seaside promenade in Bizerte
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Figure 1.6: Facilities implanted in the periurban forest in Borj Cédria
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Post-Independence Transformations

Following independence, Tunis experienced significant urban transformation driven by rural migration and urban sprawl. After an initial phase where urban planning was deprioritized, efforts were made to modernize infrastructure. However, this modernist drive often disrupted Medina's historical fabric, diminishing its unique character.

By the 1970s, Tunisia continued expanding with the renovation of major squares and the creation of new public spaces essentially in Tunis, such as Human Rights Square and Barcelona Square. The transformation of a Jewish cemetery into a park (Habib Thameur Park) and projects like Menzah Sports City (1967) underscored a growing focus on green spaces. Yet, the 1980s revealed dualities in urban planning: while public urban projects incorporated green spaces, they were often excluded in informal urbanization, reflecting broader socio-spatial inequalities. Despite attempts to promote women's emancipation and public space inclusivity, authorities maintained considerable control, shaping a complex pattern of accessibility and social interaction.

Up until 2011, public spaces were heavily politicized. Propaganda billboards, newly created squares, and beautified streets and avenues in elite neighborhoods showcased state power, while poorer neighborhoods were neglected. The 1990s saw initiatives like the creation of 100 public parks and "Boulevards de l'Environnement"[9], ostensibly for environmental preservation. However, privatization strategies emerged, commodifying public spaces and further consolidating regime control. This excessive oversight limited genuine public participation and civic engagement, exposing the contradictions of urban governance.

9 All municipalities across the country were instructed by the regime to create "Boulevards of the Environment" through the planting and development of a major roadway.

A New Institutional Dimension of Public Spaces

The events of December 2010 and January 2011 in Tunisia transformed streets and neighborhoods into spontaneous spaces for collective expression and public dialogue, marking the emergence of a new form of public space. While these spaces became platforms for civic engagement and communal interaction , they also reflected contrasting patterns of use, from organized gatherings and neighborhood committee activities to informal, individual practices such as unauthorized construction in green areas. Public and green spaces were both arenas for social engagement and as resources for redistribution, particularly in poorer, peripheral areas often overlooked except during moments of violence.



Figure 1.7: Habib Thameur Park in the 60s
© Tunisia Documentary, 2020





Figure 1.8: Mediterranean park (new design) and Ennahli Parks (peri-urban forest)
© Zaafrane Zhioua, 2022

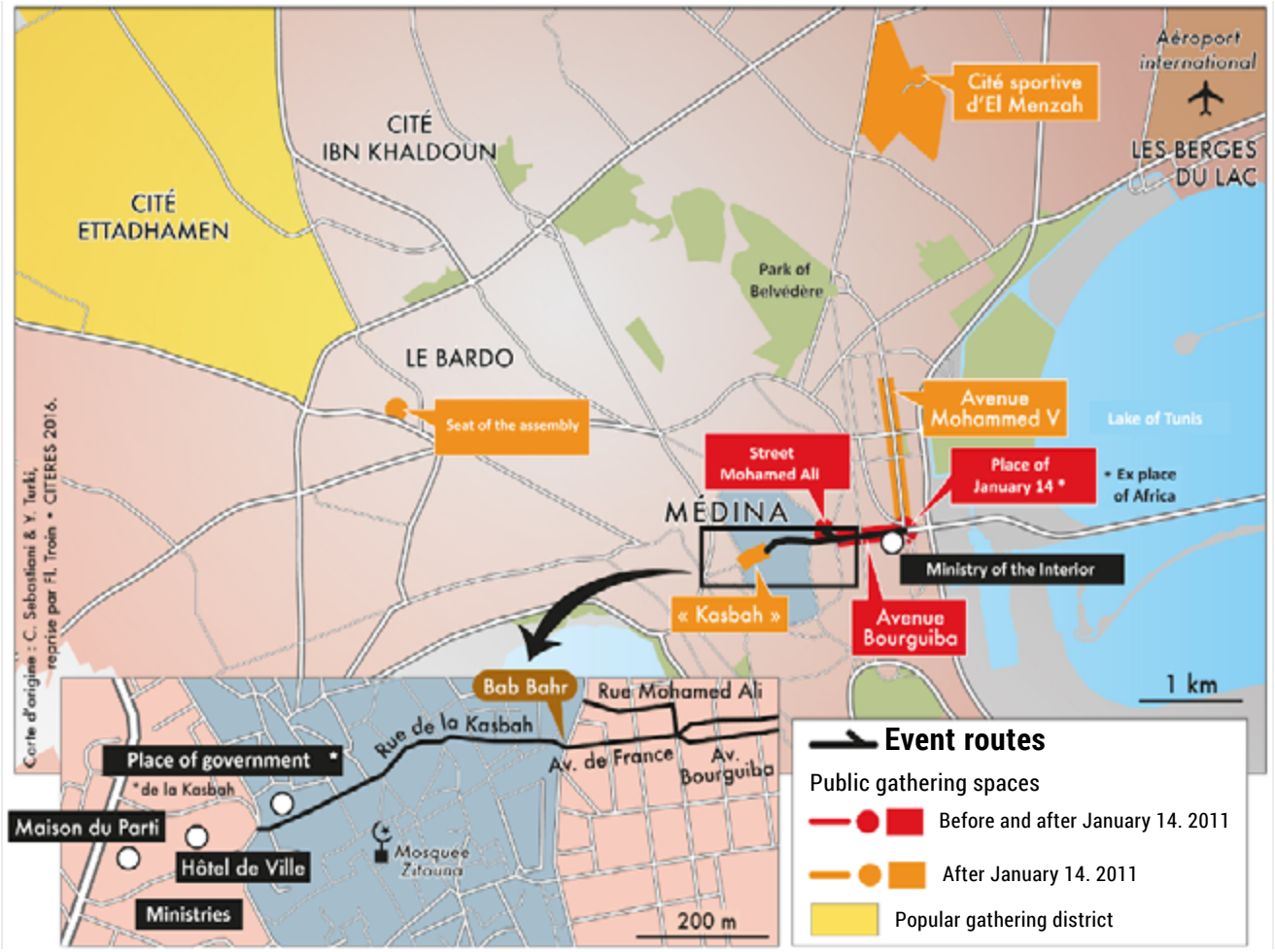

Figure 1.9: Main public spaces and gathering neighborhoods in Tunis untill 2011
© Sebastiani & Turki, 2016



Figure 1.10: Citizen involvement in plantation campaign in Soukra
© Authors, 2024

This period redefined public spaces as key settings for political activism, social engagement, and community building, underscoring their dual role as spaces for expression and as reflections of broader socio-economic disparities.

In this context, the post-2011 era introduced a renewed perspective on public and green spaces, emphasizing the role of active citizen engagement in shaping their urban environments and political futures. Community clean-up campaigns were organized in green and open spaces across various cities in the country.

Municipalities collaborated with local communities to design green spaces, as seen in examples from Jemna, Bargou, and Dehiba. Local associations and resident groups took part in initiatives to animate and maintain these spaces, either independently or through programs led by international organizations.

1.4. Cultural Practices and Their Influence on Public and Green Spaces

Public spaces in Tunisian cities, especially souks (markets), serve as vibrant hubs for social interaction and community life. Tunisians often gather in these spaces not only for commerce but also for socializing, reflecting a cultural emphasis on community bonding and social cohesion. The French colonial period introduced new spatial configurations to Tunisian cities, especially in downtown areas like Avenue Habib Bourguiba in Tunis. Modern buildings, squares, and parks influenced by European urbanism have impacted traditional public space usage, introducing elements like outdoor cafes, pedestrian streets, and recreational parks. The culture of gathering in cafes is deeply embedded in Tunisian society. They are central to public life, serving as informal spaces for socialization and discussion. They often extend into sidewalks, merging public and private space to create relaxed environments for both local residents and visitors. However, these cafes are often male-dominated, and their occupation of the sidewalks is negatively perceived by women.

Public spaces frequently host cultural and social events, which shape their design and utilization. For instance, public squares and streets are often venues for traditional celebrations (circumcisions, weddings…). These spaces are adapted temporarily to accommodate large gatherings. It is common for Tunisian homes and shops to occupy some sections of the streets in front of their premises for private use and greening. Cafés, shops and informal vendors also usually occupy portions of public space. Informal commerce, particularly street vending, plays a significant role in public spaces. While vendors contribute to the local economy and accessibility of goods, their presence can lead to congestion and impact pedestrian mobility and safety[10]. Municipal authorities often struggle to regulate these areas effectively due to social pressures, the absence of a municipal police force, and the lack of control resources.

10 In Tunisia, informal vending is a significant aspect of the economy (contributing between 14 and 29 % to the national GDP before 2009 (Abid and Ben Slha 2013)). While it provides economic opportunities for many citizens, particularly in urban areas, it also poses challenges to the organization and management of public spaces.



Figure 1.11: Cafes occupying an alley's public space with a tree shading
© Authors, 2024





Figure 1.12: Issues of informal occupation (top) and waste in public spaces (bottom)
© Authors, 2024



Figure 1.13: Vendors occupying plantation areas
© Authors, 2024

Furthermore, the expansion of informal trading affects the aesthetic and functional aspects of urban design, leading to a mismatch between the intended use of public spaces and their actual use. Balancing support for local economies with maintaining accessible public spaces is a challenge due to inconsistent regulation.

The male dominance of public spaces remains prevalent, and traditional gender norms continue to influence how spaces are used, but their extent varies across different times and places. Cultural practices influence how men and women interact in public spaces. In popular neighborhoods, cultural norms define how spaces are used. For instance, cafes are traditionally male-dominated, while markets are frequented by women.

Cultural practices play a significant role in shaping public and private spaces in Tunisia, especially after the revolution. Public spaces often serve as places for collective action, like protests and community gatherings, reflecting shared traditions and civic engagement. However, access to these spaces varies; wealthier areas have more visible and formalized public spaces, while under-resourced neighborhoods rely on informal or improvised spaces like markets, cafes, or mosques.

Overall, these practices highlight the deep connection between culture and space in Tunisia, where public spaces reflect both collective identity and ongoing social change (Sebastiani and Turki, 2018).

1.5. Current Challenges Facing Green Spaces in Tunisia

Referring to the typology introduced earlier, green spaces in Tunisia are classified as shown in table 1.2 below;

Table 1.2: Typological classification of green spaces in Tunisia

	Linear Public Greening	Urban Lungs	Micro - Greening
Key Features	Tree-lined streets in European centers and major public projects. Planted transit routes crossing urban areas. Corniches and promenades.	Urban parks are often created by integrating peri-urban forests. Large public gardens, most of which are either colonial-era legacies or recently developed in central areas of major cities. Squares and gardens in European fabrics. Green spaces developed as part of planned urban operations.	Small planted areas in European fabrics. Small planted areas in urban operations, historical or informal neighborhoods street planters
Distribution	These green spaces are primarily found in cities with European or historical centers or in areas with public housing projects. They are scarce in informal settlements. They are limited in urban development projects, with notable exceptions such as the Perles du Lac project, which represents significant innovation in this regard.	The parks are predominantly located in areas where forests originally existed, which are unevenly distributed, mainly in the north of the country. Large public gardens and neighborhood gardens are concentrated in organized urban areas and are nearly absent in informal settlements, which accounted for up to 46% of urban spaces developed between 2011 and 2013 (Kahloun, 2014).	
Characteristics	The main element is street trees, often planted along sidewalks or central medians. Common species include ficus and palm trees, which require less maintenance compared to other green space types.	Parks retain the original plantations of the integrated peri-urban forests. Maintenance and protection are ensured by dedicated administrative bodies. Large central gardens receive more attention from municipalities, maintaining a minimum quality standard. Proximity public gardens vary in quality but are often poorly maintained. Vegetation does not thrive, and hardscape elements dominate.	Very small operations in terms of scale, typically ground-based with minimal use of walls or roofs. Direct planting in the soil or through the use of pots. These operations are generally associated with urban initiatives or the development of outdoor spaces for commercial activities (restaurants, cafés, etc.).
Actors of Development and Management	Planted avenues are managed by municipalities, while planted transit routes fall under the Ministry of Equipment.	Parks are managed by the state, while large gardens are under municipal responsibility. Spaces that become neighborhood gardens are usually initially created by developers, who transfer them to municipalities at the end of their projects. Due to their large number and limited resources, municipalities often struggle to maintain and protect them adequately.	Generally realized by vendors, cafes, and inhabitants. Proximity public gardens vary in quality but are often poorly maintained.

© Authors, 2024



Figure 1.14: Rows of palm trees lining the coastal promenade in Mahdia
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Figure 1.15: A standing tree in Chebba, Mahdia
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Key Urban and Environmental Challenges

Public and green spaces face several critical challenges that limit their accessibility, safety, and inclusivity.

a. Availability, Accessibility, and Connectivity Deficits

Green spaces are scarce in informal neighborhoods, and transport options to existing parks are insufficient, particularly for underserved populations.

Public and green spaces are often occupied by informal constructions or vendors or cafes, reducing their use. There is a challenge to balance the economic necessity of informal trading with the need to maintain organized, accessible, and safe public and green spaces. Municipalities must adopt integrated urban policies that address both the economic role of informal trading and its spatial implications. This includes creating adapted spaces and enhancing regulatory frameworks to better accommodate both formal and informal economic activities.

Public spaces and green areas are often not designed for universal access. Obstacles like high sidewalks, stairs without handrails, and uneven surfaces make them inaccessible to people with reduced mobility, the elderly, or parents with strollers.

b. Safety, Gender Inclusivity, and Diversity of Uses

Green spaces should promote social inclusion, welcoming individuals of all ages, genders, and various social classes. They should offer diverse activities and services to cater to the varied needs of local communities. These spaces must address the exclusion of underserved groups by providing social services and safe environments. Citizen participation in planning and managing these spaces ensures they meet community needs and are managed properly and inclusively. In Tunisia, gender significantly influences the use of public and green spaces, with men often dominating these areas, while women's use is shaped by safety concerns and social norms. Initiatives focusing on inclusivity are essential to make these spaces welcoming for everyone, ensuring safe and equal access for both men and women.

Despite a law that punishes violence against women (Law 58-2017), women's presence in public spaces is subject to various forms of aggression. Women face significant safety concerns due to harassment, with 53% reporting such incidents in public spaces (CREDIF 2016). Indeed, Green spaces may also lack adequate lighting and security measures, making them appear unsafe for women and children, thereby limiting their usage. Both public and green spaces often lack tailored amenities, such as play areas and accessible paths, as well as activities that cater to different age groups and social categories, reducing their inclusivity.

c. Infrastructure Degradation and Environmental Pressures

Green spaces often face neglect and inadequate maintenance, leading to degradation through waste accumulation, overuse, or neglected vegetation. Ineffective waste management results in environmental degradation, decreasing public usability. Urban infrastructure, including benches and fountains, suffers from wear and tear due to inadequate maintenance primarily tied to the lack of human and material resources in municipalities (Turki and Verdeil, 2015). Beyond this insufficiency, this degradation raises questions about the sustainability of green space design models (Is it possible to design green spaces that require less intervention in terms of maintenance and upkeep?) and their governance models (What alternative models for green space management could avoid the omnipresence of the municipality?).

1.6. Stakeholders in the Production of Public Space

In Tunisia, the production and management of green spaces involve a diverse range of stakeholders and processes. Municipalities play a central role by designating land for green spaces in their Urban Development Plans (PAU).

PAUs are vital for regulating and protecting these spaces, ensuring their preservation and preventing unauthorized repurposing. Though not all planned spaces come to fruition. State developers, such as the Housing Agency (AFH) and the Agency for Redevelopment and Renovation (ARRU), along with private developers, are mandated to include green spaces in their projects, which are then transferred to municipalities for maintenance.

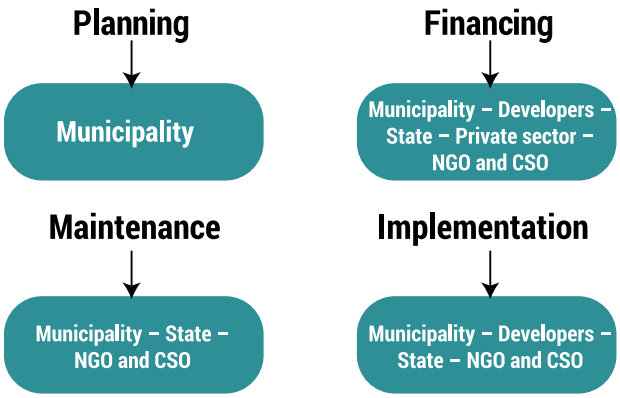

Figure 1.16: Main stakeholders in public space production and management
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However, challenges such as uneven resource distribution and inconsistent maintenance often hinder the quality and accessibility of these spaces. Public and green spaces are primarily managed by municipalities, which oversee land occupation and urban regulation, though certain major streets fall under the Ministry of Equipment and Housing. The national police collaborate with municipalities to address security and informal occupation issues, while the Ministry of Interior ensures adherence to regulations. Governorates also play a role by guiding municipalities and police to manage informal occupations. Large urban parks are developed by the state through the Ministry of the Environment.

Alongside these public actors, Civil Society Organizations (CSOs) assist in some cases in maintaining and activating public spaces. Some projects receive funding from international organizations, private entities, or NGOs, with ownership remaining public.

Community organizations and NGOs are increasingly active in project proposals, community initiatives, and public space management. International NGOs have made some contributions to the design and financing of public spaces, such as the Femmedina project by Cities Alliances that created a green space specifically designed for female use in the Medina of Tunis and the green areas created in Dehiba, Ben Guerdan, Krib, and Boughrara by CILG-VNG International.

This highlights the growing role of international collaboration in enhancing local governance of urban public and green spaces. The year 2011 marked a turning point in Tunisia, introducing participatory approaches to local governance. Since 2021, despite revisions to legal frameworks and a reduced emphasis on systematic participation, the principle of citizen involvement continues to shape local governance, influencing actions and decisions that directly impact communities.

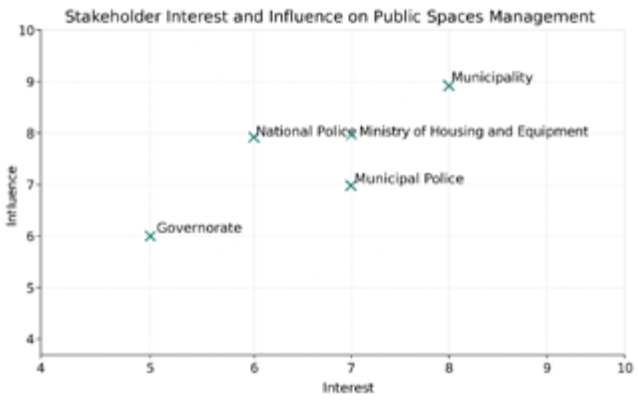

Figure 1.17: Stakeholder interest and influence on public space management
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1.7. Synthesis and Key Recommendations

This section synthesizes the key findings from the preliminary analysis of public and green spaces in Tunisia. Tracing their historical evolution and current contemporary context, it highlights how the layered and successive periods, cultural practices, gendered-use patterns, and governance challenges have shaped the state of public and green spaces nowadays. Building on these insights, strategic recommendations are proposed to guide Al-Kherba Project, focusing on inclusivity, historical continuity, sustainability, and strengthened municipal leadership. In turn, these considerations will serve as a base for the detailed analyses presented in the sections to follow.

Key Findings

1. Legacy of heritage: Tunisian public spaces have been shaped by four key periods: Arabo-Muslim, French colonial, post-independence, and post 2011, each contributing unique forms and definitions of public and green spaces. The current situation corresponds to an accumulation of the effects of each of these phases. The reclaiming of public and green spaces faces limited infrastructure and spatially unequal distribution and is dominated by inherited social and cultural practices.

2. Cultural Influences and gendered use: Tunisian public and green spaces are influenced by historical, social, and cultural principles, serving as hubs for social interaction, cultural ceremonies, and blending public and private uses. Cultural practices also influence how men and women use public and green spaces, with traditional norms being challenged by modernization, leading to the issue of inclusivity and safety.

3. Informal vs. Formal occupation: Green spaces in Tunisia range from formal, municipally planned areas (the main trend) to informal spaces created by inhabitants, reflecting diverse urban and rural contexts and serving multiple social functions. The regulatory framework supports the generalization of green spaces, but this framework is applied only in formal neighborhoods. Informal urbanization limits the development of such spaces in popular neighborhoods. In both cases, green spaces are often rapidly deteriorating and, in some cases, informally occupied.

4. Municipalities, a major role vs. limited resources: Green spaces are developed and maintained by municipalities, with an additional role for developers and the state, and sometimes funded by international or private entities, with varying degrees of success and challenges. Municipalities have limited financial and human resources and restricted control over public space use. This situation leads to insufficient green spaces and rapid degradation and occupation of existing ones.

Strategic Recommendations for Al-Kherba Project

In light of the situation of public and green spaces in Tunisia and their historical evolution, as well as in anticipation of Al-Kherba project, the following strategic recommendations are proposed:

- Inclusivity and Universal Accessibility: Consider the diversity of uses and gender relations in the proposed designs, making universal accessibility a central aspect. Public spaces should cater to diverse community needs, including areas for children, the elderly, and cultural activities, ensuring spaces are welcoming for all genders and social groups.
- Historical Continuity: Integrate the diversity and evolution of historical green space models into the project, particularly in relation to the site's intermediate position, which embodies two contrasting modes of public spaces and access to greenery.
- Sustainability and Maintenance: Ensure the sustainability of designs and plantings from the design phase, planning for efficient maintenance strategies that account for municipalities' limited resources while capitalizing on the growing public interest in public spaces to support stewardship and resilience.
- Community-Centered Governance: Place the municipality at the heart of the design and management process for green spaces, while involving other potential stakeholders such as residents, local associations, and vendors. Supporting community-led initiatives will foster ownership, ensure green spaces meet local needs, and contribute to their ongoing maintenance.

The examination of Tunisia's public and green spaces highlights the importance of historical, cultural, and political dimensions in their creation and use. These insights provide a critical framework for Al-Kherba Project, emphasizing the need for context-sensitive interventions that are historically informed, socially inclusive, environmentally sustainable, and guided by effective governance. The following sections build on this foundation by examining the specific urban, environmental, and social contexts of Al-Kherba site in greater depth, and by proposing targeted strategies for shaping a resilient, vibrant, and equitable urban environment.

2 TUNIS: URBAN HISTORY, EXPANSION, AND GREEN INFRASTRUCTURE



2.1. Introduction to Urban Development in Tunis

The capital, "Tunis", commonly referred to as "Greater Tunis", is divided into 38 municipalities. Among them, the Municipality of Tunis is the oldest, most central, and most prominent, though it comprises only a portion of the overall urban area. The following section presents a macroscopic analysis, beginning with an overview of Greater Tunis before narrowing the focus to the Municipality of Tunis, the primary subject of this study.

This analysis draws on general sources detailing the city's history (Sebagh 1998; Abdelkafi 1987) and urban characteristics (primarily from www.augt.gov.tn), along with targeted research on the distribution of public and green spaces in the urban fabric.

Tunis, the capital of Tunisia, was a modest site in both the Punic and Roman eras. After the Arabs ousted the Byzantines in AD 695, they chose Tunis as a strategic site, building the medina on high ground between the Sebkhet Sejoumi salt lake and Lake Tunis. The Zaytouna Mosque, founded in AD 698, and the Zaytouna University, founded in AD 732, became the city's focal point. In the 9th century, Aghlabid dynasty ruler Ibrahim ibn Ahmed II established his court in Tunis, making it the seat of power.

Tunis flourished under the Hafsid dynasty (1229–1574), with its population growing and cultural institutions such as souks and mosques developing. The Zaytouna Mosque and its associated university (a key center of Islamic learning) played a prominent role in religious and cultural life.

In the 19th century, during French colonial rule, the city expanded with the development of the Ville Nouvelle (also called the colonial city or European city), a modern district characterized by wide boulevards and geometric urban fabric, European-style buildings and public squares, which shifted the city's commercial and administrative activities.

Today, Tunis remains a city of contrasts, where ancient and modern urban fabrics coexist. It is the main gateway to Tunisia, housing key government institutions, embassies, and businesses (45.9 % of the Gross National Product of the country is produced in Greater Tunis (INS 2021)), while also being a center for arts and culture, with museums, theaters, and cultural festivals.

2.2. Greater Tunis: Patterns of Urban Expansion

Today, The city of Tunis has evolved and absorbed surrounding villages and localities, forming a continuous urban area now known as Greater Tunis. Greater Tunis is the political and economic capital; it functions as a central hub for public and private sector activities.



Figure 2.1: Ancient gate to the medina

© Open access image (www.pexel.com)



Figure 2.2: French colonial-era building situated within the European quarter of the Medina

© Open access image (www.pexel.com)



Figure 2.3: Geographic location of Greater Tunis
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Spanning 35,000 urbanized hectares (AUGT 2018). Key elements act as driving forces to urban expansion in Greater Tunis, with a focus on the time factor in this process:

- Population Growth and Urbanization: With over 2.5 million residents, Greater Tunis has seen steady population growth since the 1980s, driven by natural increases and migration.
- Economic Development and Industrial Growth: The economic activities of Greater Tunis have expanded significantly, particularly in the fields of commerce, industry (40% of the national jobs in industry, AUGT 2018), and services in the city center and the periphery. The proximity of Greater Tunis to key infrastructure, such as the port of La Goulette and the Tunis-Carthage Airport, has fostered growth in trade, transport, and logistics.
- Urban Sprawl and Suburbanization: One of the most prominent features of urban expansion in Greater Tunis has been suburbanization. Since the 1990s, the central urban core of Tunis has seen an outflow of people and businesses to suburban areas, where land is more affordable and less densely populated.
- Infrastructure Development: The construction of new roads, highways, bridges, and public transport systems (4 train lines and 5 tramway lines) has facilitated the growth of suburban areas and improved connectivity between the different governorates, even if the quality of public transport and traffic conditions are unsatisfactory.
- Urban Planning and Development Policies: The government has implemented urban planning and regulation laws designed to control land use and ensure that development is balanced with the preservation of the environment. However, the rapid pace of growth since the 1990s has often outpaced the ability of urban planners to manage it effectively, and part of the land use remains informal.
- Real Estate and Housing Development: The demand for housing in Greater Tunis has been met with extensive real estate development, especially in suburban areas, over the past two decades. The government has focused on promoting affordable housing, though there are still significant shortages in this area, particularly for low-income families.

2.3. Spatial Inequalities in Green Space Distribution

With the expanding population in Greater Tunis, many social and urban phenomena have transformed the city's urban fabric. Informal housing began to develop in the 1970s, primarily on agricultural land at the outskirts of the city, and has been characterized by horizontal expansion and high density. Urban planning in Greater Tunis has historically favored housing projects, leaving minimal room for the creation and maintenance of green spaces.

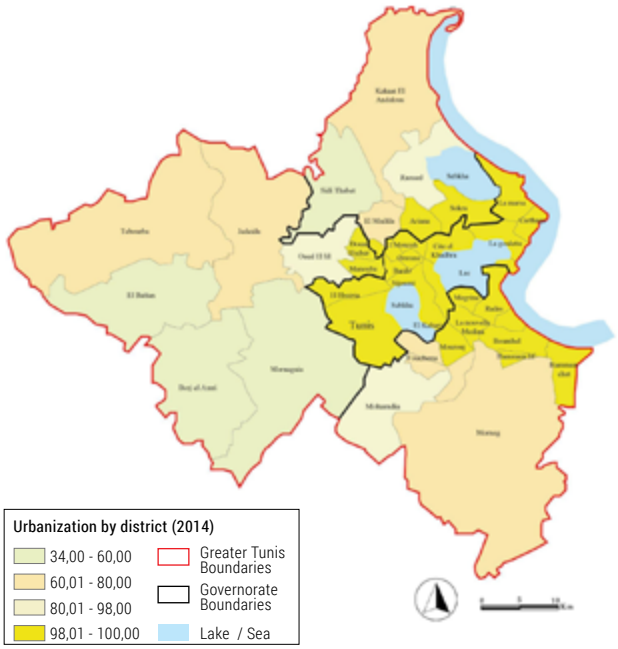

Figure 2.4: Map showing the percentage of urbanization by district in 2014
© INS, 2014

The situation is characterized by a notable lack of formally planned areas, resulting in a complex landscape where private development, formal or informal, often takes precedence over communal needs. In many neighborhoods, especially those undergoing rapid and unregulated development, residents have limited access to green spaces and parks, exacerbating social inequalities

The distribution and characteristics of green spaces in Greater Tunis reveal significant variability across municipalities. According to a study conducted in 2006 (Turki & Zaafrane Zhioua, 2006), the average green space ratio is reported to be 16 m² per capita, exceeding the target of 15 m² fixed by the authorities.

However, this figure masks considerable disparities, with ratios ranging from as low as 0.11 m² to as high as 59.08 m² per capita. Coastal municipalities typically exhibit higher ratios attributed to their natural landscapes and elevated living standards. Nonetheless, these municipalities often encompass natural features such as forests and mountains, which may not be fully accessible to the public, thereby skewing perceptions of green space availability. In contrast, municipalities experiencing recent or unregulated development, such as Ettadhamen and Douar Hicher, suffer from a notable scarcity of urban parks and local green spaces.

The disparities between municipalities in Greater Tunis are evident. Although Tunisian authorities have attempted to address this issue by developing public transportation systems, such as bus lines that connect to urban parks or summer buses that connect popular neighborhoods to the sea, many of these areas remain accessible primarily by car. This situation highlights the ongoing inequalities in access to public amenities for residents across different parts of Greater Tunis.

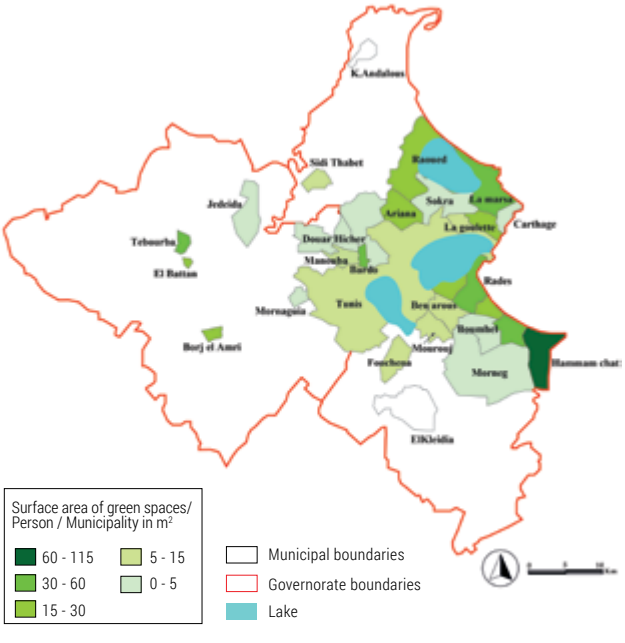

Figure 2.5: The spatial distribution and planning of green spaces programmed by urban planning documents in Greater Tunis

© Turki and Zaâfrane Zhioua, 2006

2.4. Urban Green Spaces in The City of Tunis

Geographic and Environmental Context

The Municipality of Tunis is in charge of a territory hereafter called the City of Tunis. As the nation's capital, it's situated at the heart of Greater Tunis and corresponds to one of the 38 municipalities comprising Greater Tunis.

The City of Tunis is defined by a range of geographic features that create a unique blend of natural landscapes and urban development. Situated along the Mediterranean Sea, Tunis enjoys a mild climate. To the east of the city lies the large saltwater Lake of Tunis, a natural landmark connected to the sea, enhancing the area's ecological diversity and providing scenic views throughout the city. Although much of the land is low-lying, several hills, including those around Belvedere Park, add variety to the cityscape, offering elevated viewpoints of the lake and city.

Tunis's urban structure reflects a balance between its historic and modern identities, with the traditional Medina of Tunis at its core, contrasted by newer districts and business areas. The city also includes green spaces like Belvedere Park, which serves as an essential area for recreation and urban biodiversity. Together, these features contribute to the vibrancy of Tunis and play a key role in shaping the City's physical layout and infrastructure.



Figure 2.6: The administrative boundaries of Tunis governorate and municipality

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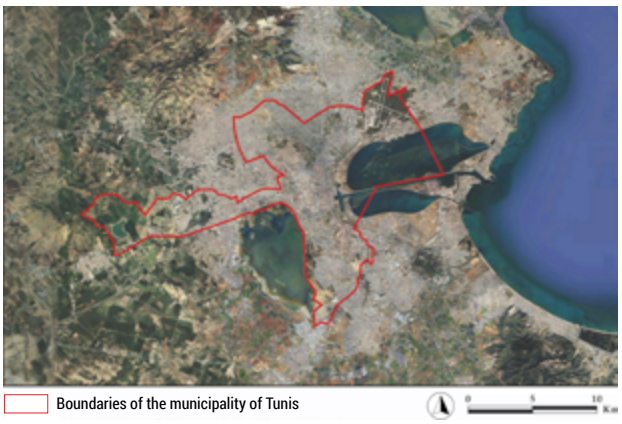

Figure 2.7: Adapted Google Earth Satellite image with municipal boundaries

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Urban Development Patterns Across Diverse Districts

The municipality of Tunis, established in 1858, is in charge of several districts, each with its own unique identity. These districts range from historic areas like Bab El Bhar and La Medina, which date back to the colonial era, to modern, evolving neighborhoods such as El Menzah, Hay Khadra, and El Omrane. These latter districts are characterized by green spaces, schools, cultural centers, and business zones. As the political and administrative center of Tunisia, Tunis also hosts major government and diplomatic institutions, reinforcing its status as the heart of the nation's political and economic activities.

Tunis Municipality has long played a central role in managing the capital's urban development, including overseeing urban planning, green space design, and the provision of municipal services. As the city grows, the municipality faces the challenge of balancing heritage preservation with the need for contemporary urban expansion. This involves meeting residents' needs while integrating innovative projects to address the city's evolving urban challenges (Municipality of Tunis, 2023).

The City of Tunis had a total population of 614,703 in 2018 (CGDR, 2019), and its urban structure is shaped by diverse demographic trends and socio-economic factors. The population growth rate varies across its 15 districts, reflecting the broader patterns of urbanization in the region.

Bab El Bhar, the historical heart of the city, has experienced a decline in population in recent years (INS, 2014). As residents move out, the district has increasingly shifted toward commercial and service-oriented functions, strengthening its role as Tunis's central business district. This transformation reflects the changing urban fabric, where commercial activities are gradually replacing residential areas.

In contrast, the peri-urban areas have experienced differing development trajectories. Districts like El Menzah and El Omrane have seen organized urbanization, stable populations, and middle-class growth, supported by well-developed infrastructure and green spaces.



Figure 2.8: The center of Tunis and its interface with the lake

© ARTUS production, 2020

Meanwhile, high-density neighborhoods such as El Hrairia face significant challenges, including overcrowding, economic pressures, and limited resources. These disparities highlight the ongoing struggle to balance development across the municipality.

The demographic and socioeconomic variations across the districts of the City of Tunis underscore the need for tailored urban strategies. Addressing the pressures of high-density districts, managing the transformation of central business areas, and preserving valuable green spaces and agricultural land are all critical to ensuring balanced development. Effective urban planning must account for these distinct patterns to foster sustainability and equity in the city's growth.

The Role and Status of Public and Green Spaces

Land use in the City of Tunis shows that housing areas, multifunctional areas, facilities, activities and infrastructure occupy more than half of the total surface area (54.5%). On the other hand, green spaces, agricultural zones and wetlands occupy 30% of the total surface area. Unused land accounts for 14.3% of the total surface area (Municipality of Tunis, 2023). Agricultural zones are mainly found in the Western sector, particularly in El Hrairia (800 ha), while wetlands cover 1,158 hectares. These wetlands are primarily along the shores of Lake Tunis and Sebkha Sijoumi.

Tunis demonstrates a diversity of green and public spaces, reflecting the city's historical layers and its vibrant urban character. These spaces are mainly in formal neighborhoods and include the grand boulevards and squares of the European city, such as Avenue Habib Bourguiba and Place Pasteur, which serve as vital arteries of cultural, political, and social activity. Urban parks like Belvédère Park and Habib Thameur Park provide essential green spaces, offering opportunities for leisure and recreation while showcasing early urban planning initiatives. At the neighborhood level, smaller gardens create intimate spaces for local communities, fostering social interaction and accessibility. The Medina, a UNESCO World Heritage site, includes traditional public spaces like souks that blend commerce with social interaction.

Additionally, the city's urban development is marked by newer features, such as the Lac Corniche, which integrates leisure spaces with waterfront views, and large-scale projects like the Cité Sportive in El Menzah, which combine recreational and cultural functions within expansive modern designs. Together, these green spaces highlight the intersection of historical legacy, contemporary urban planning, and the ongoing transformation of Tunis into a vibrant and evolving urban landscape.

In the informal neighborhoods, designed green spaces (gardens, parks, and green infrastructure) are less present in the residential areas. However, some of these informal neighborhoods (Kabbaria, Hrairia, etc.) are located near natural zones or forests. This explains why the Western and Southern sectors of Tunis encompass the most extensive green spaces within the city, covering a combined total of 426 hectares. Key areas within these sectors include El Hrairia (92 hectares), El Kabbaria (186 hectares), and El Ouardia (100 hectares).

In contrast, the Central sector, near Al-Kherba, contains the smallest amount of green space, totaling only 124 hectares, with districts like Bab Souika (8 hectares) and Bab Bhar (13 hectares) exhibiting particularly limited green coverage, even if Bab Bhar is known for its famous green spaces (Bourguiba street and Habib Thameur Park).

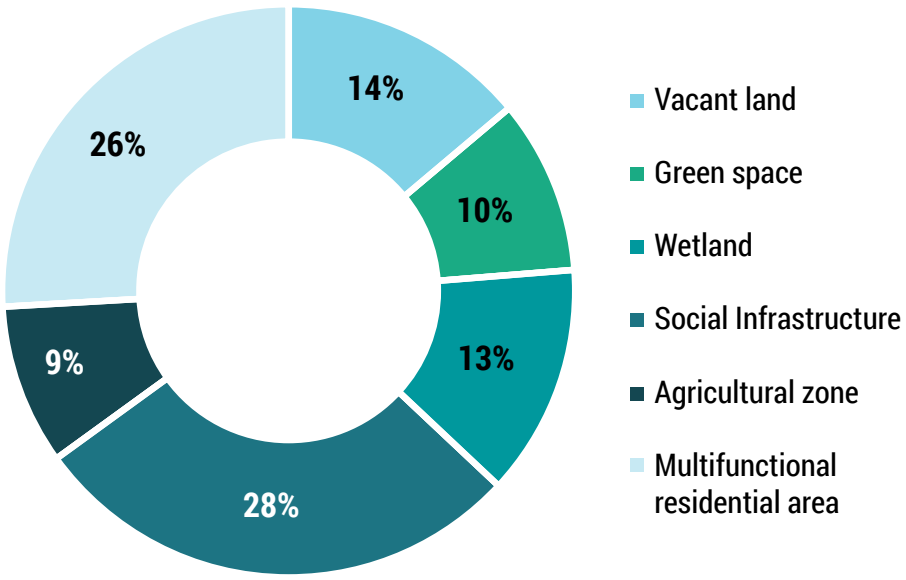

Figure 2.9: Land use distribution in Tunis city
© Municipality of Tunis, 2023

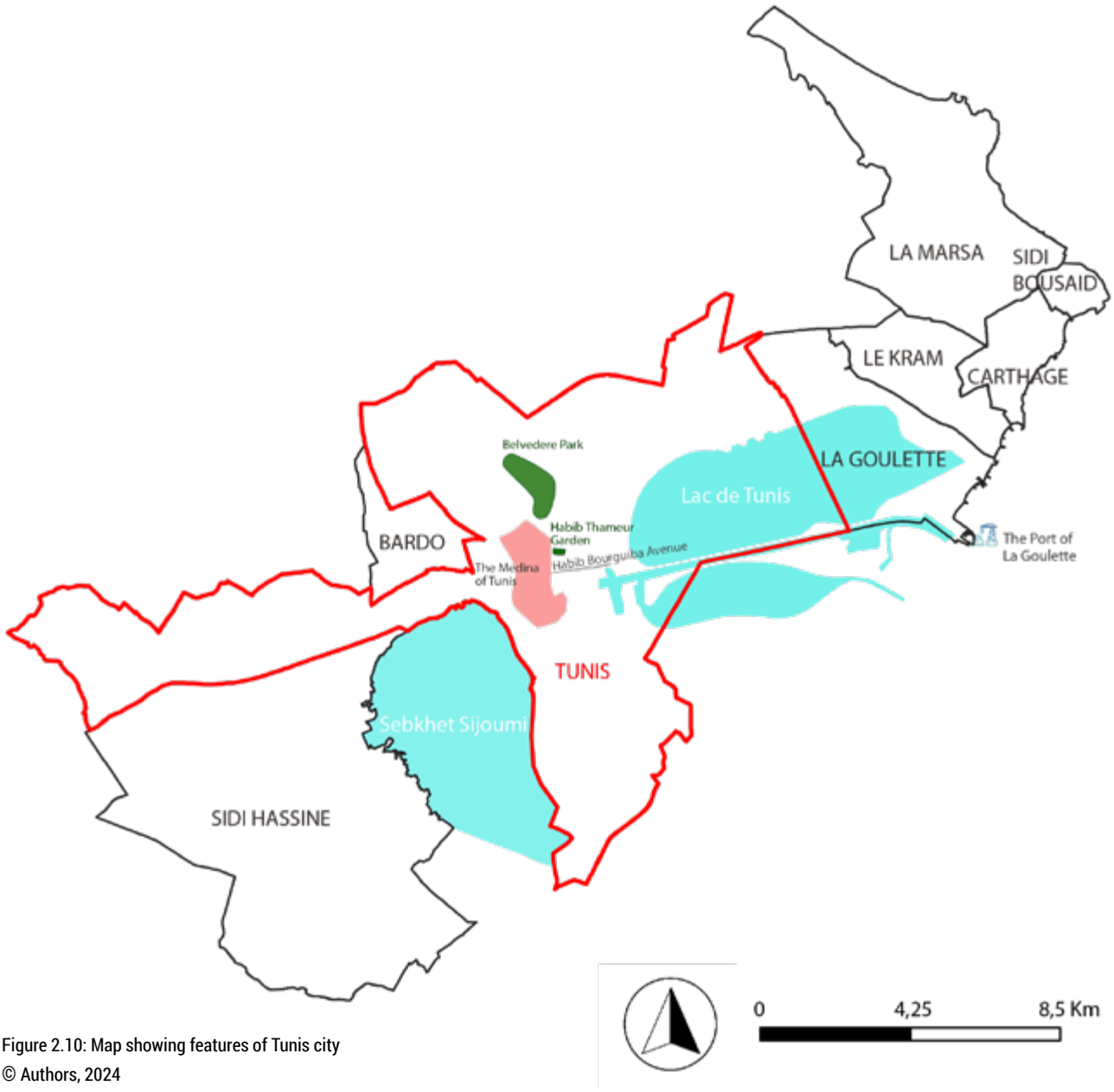

Figure 2.10: Map showing features of Tunis city
© Authors, 2024



Figure 2.11: Avenue Habib Bourguiba in Tunis
© Walid Haj Ali, 2022



Figure 2.12: El Menzah neighborhood
© ARTUS production, 2020

Tunis's PAU indicates a total of 884 hectares of green spaces. Of these, over 25% are urban green spaces that are partially or fully developed and accessible to the public, while 59% are landscaped areas, encompassing all planted and landscaped spaces, whether or not they contain facilities or furniture.

Since the early 2000s, Tunisian authorities set a target for green space coverage of 15 m² per inhabitant by 2009, a goal that has now become the norm. Currently, the Municipality of Tunis surpasses this standard, with a green space ratio of over 17 m² per inhabitant when reforestation areas, cemeteries, and nurseries (RCP)[11] are included, and 12.02 m² per inhabitant without RCP. A 2021 survey by Urban Dev confirmed the same ratios. However, there is a marked variation across sectors: the North sector boasts the highest green space per capita ratio (25.48 m²), while the central sector has the lowest (9.38 m²). This disparity underscores the uneven distribution of green spaces across Tunis's districts, with the North sector significantly leading in green space allocation.

11 RCP or " reboisements des pépinières et des cimetières", reforested areas, cemeteries, and nurseries.

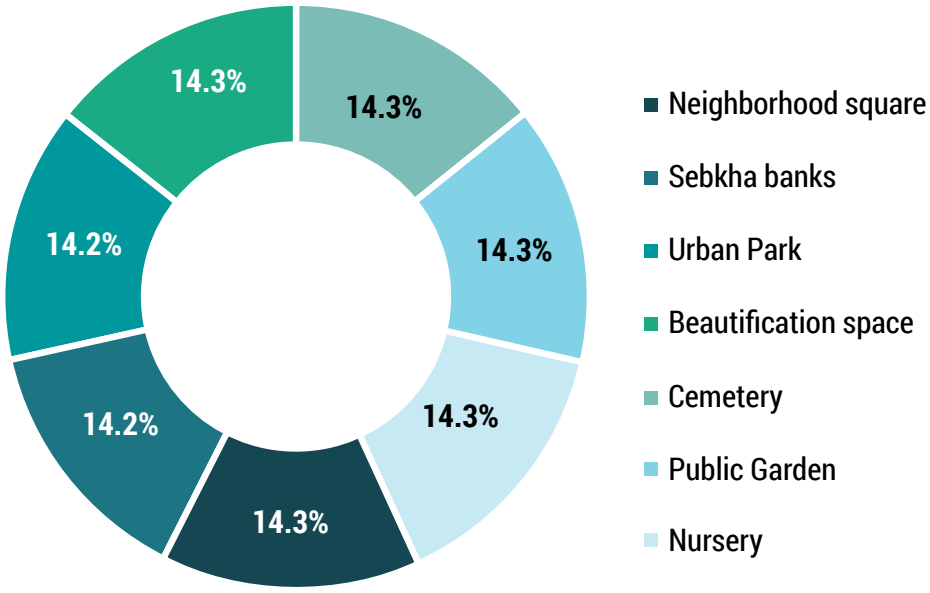

Figure 2.13: Distribution of urban green spaces by type in the municipality
© AUGT, 2017

Table 2.1: Green space area, reforestation area, nursery, cemetery area, and green space ratio per inhabitant in the Municipality of Tunis (2022)

Sector	Total Green Space (Ha)	Area Including RCP (Ha) (2022)	Green Space per Inhabitant (m^2) including RCP (2022)	Green Space per Inhabitant (m^2) without RCP (2022)	Population Estimate 2022 (x1000)
West/South	478	276.5	16.5	6.5	294.5
Center	121.5	87.5	9.5	6.5	129.5
North	467.5	266	25.5	14.5	183.5
Total	1067	630	17.5	12	607.5

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2.5. Conclusion: Unequal Distribution of Green Spaces in Tunis

This section demonstrated that while Tunis possesses a strong historical identity and significant urban assets, such as the presence of parks, wide venues, and prominent landmarks stemming notably from its colonial heritage, the city also faces persistent shortcomings in the distribution of green spaces.

Despite the advantages offered by major projects such as El Menzah and the Lac developments, the accessibility and quality of green spaces vary greatly between neighborhoods. The study area, Al-Kherba, located within a dense urban fabric near Avenue Bourguiba, exemplifies these disparities, as it remains particularly underserved in terms of green public spaces.

3 UNDERSTANDING AL-KHERBA IN ITS URBAN CONTEXT



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3.1. Methodology and Analytical Framework

The analysis aims to study Al-Kherba (both the intervention site and the surrounding neighborhood) within its broader urban context. Beginning with the historical emergence and spatial evolution of the neighborhood, it seeks to identify the area's defining characteristics and urban patterns

To this end, the methodology integrates the following components:

- Historical analysis, based on existing documents and interviews with local historians, retraces the neighborhood's development and identifies the origins of key architectural and spatial features.
- Cartographic analysis, involving the study of maps (e.g., 1:1000 scale city maps from the Urban Planning Agency of Greater Tunis, 1998) alongside current satellite imagery from platforms such as Google Earth, to access spatial transformation over time.
- Review of planning and classification documents, including the 2017 Urban Development Plan of the city of Tunis and heritage classification status verification through the Association for the Safeguard of the Medina, to understand regulatory frameworks and planning intentions.
- Field visits and surveys, incorporating photographic documentation, recordings, and participant observation, as well as semi-structured interviews with local residents and users of the space, to capture lived experiences and local narratives.
- Qualitative spatial analysis, focusing on the area's connectivity, accessibility, land-use interfaces and urban permeability. This multi-layered approach helps to contextualize Al-Kherba within wider mobility patterns, socio-economic networks, and potential pathways for integrated urban development.

3.2. Characteristics of The Site of Al-Kherba

The term Al-Kherba, meaning "the ruins," refers to an area of the city that was bombed, resulting in the demolition of several houses. It is used to describe both the open space created by this destruction, referred to in this report as Al-Kherba Open Space or Public Space, and the broader area encompassing the surrounding buildings, here referred to as Al-Kherba Neighborhood. This neighborhood lacks an official boundary, as it is based on an informal, locally understood representation. Strategically located, Al-Kherba Neighborhood sits at a key junction where the historic Medina meets the European City.



Figure 3.1: Location map of the study area relative to Medina and the European City

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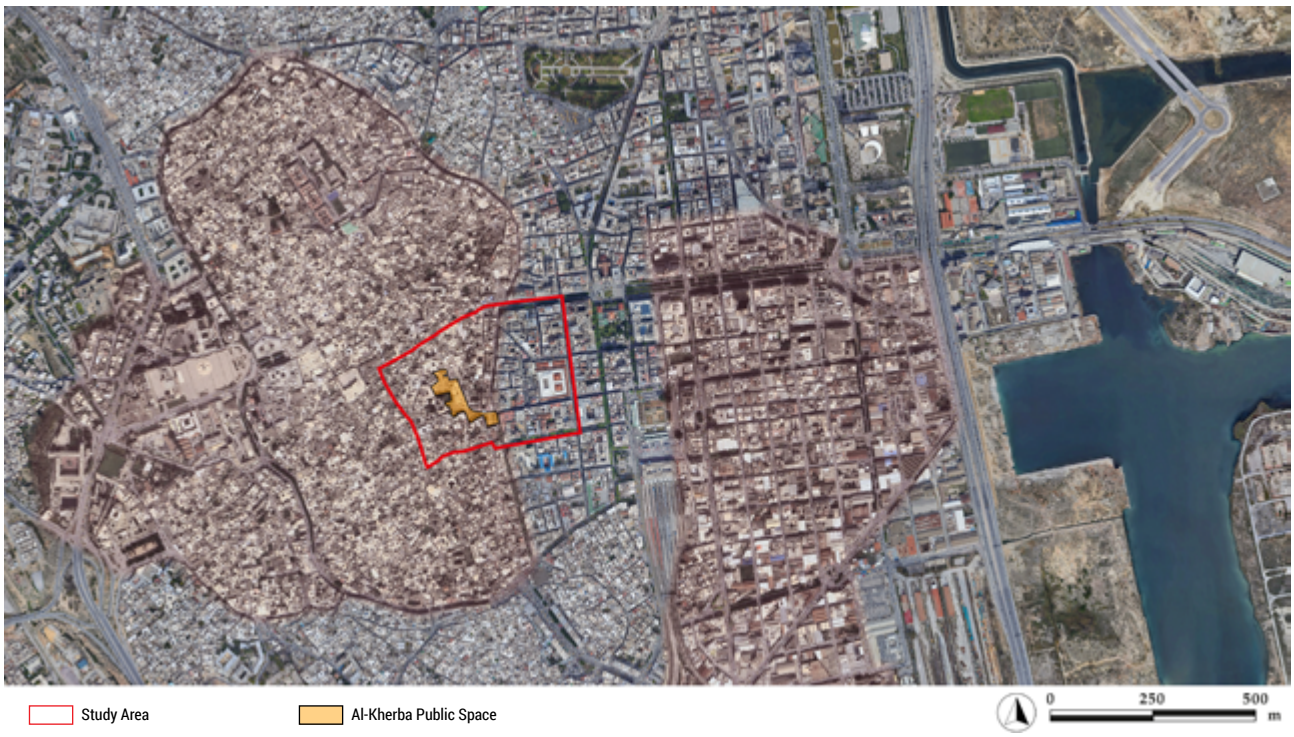

Figure 3.2: Location map of Al-Kherba public space relative to the Medina and the European city
© Authors, 2024

The study area defined for this research was delineated to support a comprehensive understanding of the broader urban fabric and includes both Al-Kherba Neighborhood and adjacent sectors of the city. It encompasses parts of the historic Medina as well as areas of the European city. To the north, it includes the vibrant commercial zone of Bab Bhar (Place de la Victoire), known for its bustling markets and souks. To the east, the boundary extends along Al Jaziria Street into the European city. The southern edge bridges the older fabric of the Medina with the more modern influences of the European quarter. The remaining boundaries bring the study area closer to the heart of the Medina, marking a gradual transition into its dense, narrow alleyways.

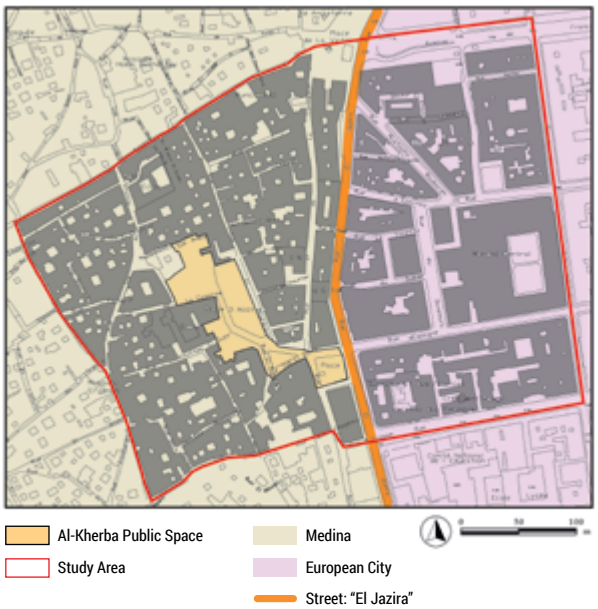

Figure 3.3: Map showing the Situation of Al-Kherba Public Space and the Study area relative to Medina and the European City
© Authors, 2024

Al-Kherba Open Space: A Vacant Gap in the Historic Medina

Al-Kherba neighborhood, originally known as Mdaq El Halfa (Esparto[12] pounding place), is located in the southeastern part of the central Medina of Tunis. Its history is marked by a major trauma: the Allied bombings during World War II, which destroyed a large portion of the neighborhood, particularly where a former telegraph station once stood. This area, previously part of the El Maktar district, saw its initial destruction caused by the bombings, further exacerbated by additional, smaller demolitions. In total, about 8000 m² of land was cleared, creating a vast open space in an area that was once densely populated.

Situated in the lower part of the Medina, along the old city walls, Al-Kherba neighborhood was once near the port, extending the "French Quarter," an area that concentrated many commercial activities. This neighborhood played a key role in the city's economic development. At the end of the 19th century, under the French Protectorate, it retained its commercial character while becoming a vital link between the historic Medina and the new city.

12 Esparto is a plant (Stipa tenacissima) present in Tunisia, mainly in the center, and used after fibers are softened through manual beating before being woven into baskets, mats, carpets and other traditional crafts.

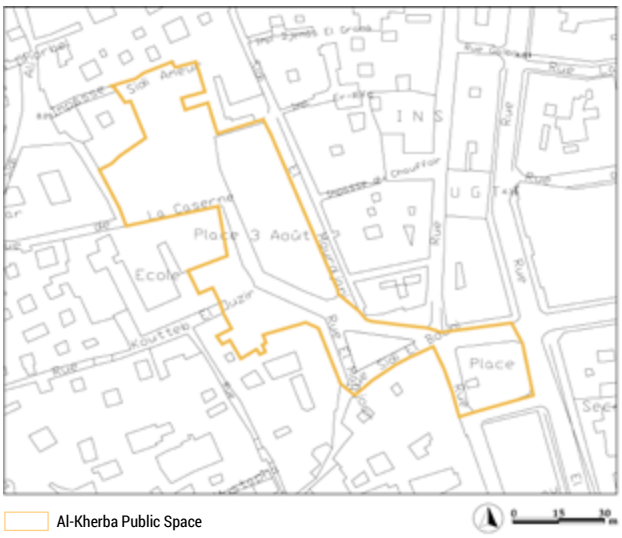

Figure 3.4: Map of Al-Kherba public space boundaries
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Historical, Social and Symbolic Significance

This part of the city housed several important infrastructures, which contributed to its social diversity. It hosted consulates (Austria, Hungary, Spain, Monaco, and Denmark) and a telegraph service and was close to the central market, commercial warehouses, and maritime agencies. These facilities helped the neighborhood grow into a vibrant and diverse district.

Among the notable institutions in the area was Tunisia's first multi-faith school, the Saint-Louis College, founded by Abbé Bourgade. This school, located in the Impasse du Missionnaire, played a pioneering role in education in Tunisia. The neighborhood was also home to the French Saint-Louis Hospital, housed at the end of the XIX in the Sidi Ali Azouz janissary barracks, a building constructed under the reign of Hammouda Pacha El Husseïni (1781-1813). This hospital, covering 1500 m², was part of a healthcare network that included a smaller hospital nearby on Rue du Bon Secours.


Central Market

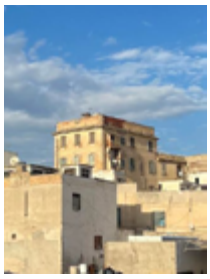

Dar Othman


Dar Bach Hamba - L' Art Rue


Bab AL BAHR


Sainte Croix Church


El Ichbil Mosque


Embassy of Spain

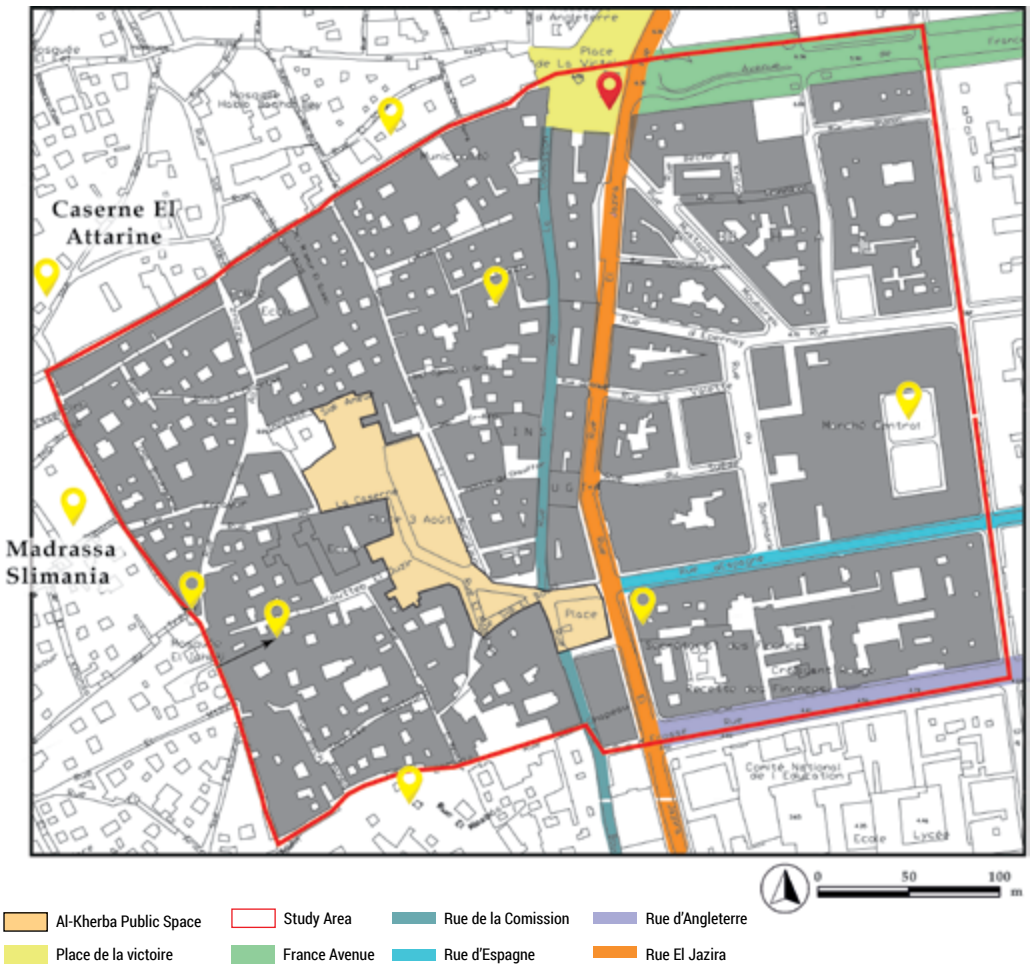


Figure 3.5: Map showing the situation of Al-Kherba public space relative to landmarks
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Figure 3.6: The sit in Al-Kherba that was once transformed into the Medina's largest parking lot following the bombing of the area
© Authors, 2024

Al-Kherba neighborhood also contained aristocratic residences, such as Dar Beyram Turki, built in the early 17th century in a Hafsid style that was still popular at the time. This palace, covering 885 m², serves as a reminder of the area's historical significance.

Functional Transformation into a Parking Area

Over time, Al-Kherba open space underwent significant transformations, eventually becoming the largest parking area in Medina. A taxi station was also implemented in this parking lot. Today, the physical design of the parking and the station is still visible at the site. However, the occupation of the land by formal and informal vendors and the delocalization of the taxi station limited car access to this place.

In summary, born from destruction, Al-Kherba area emerged as a neighborhood deeply influenced by history, commerce, and social diversity, while also being at the center of urban transformations within the Medina of Tunis.



Figure 3.7: Map of solid and void of the study area
© Authors, 2024

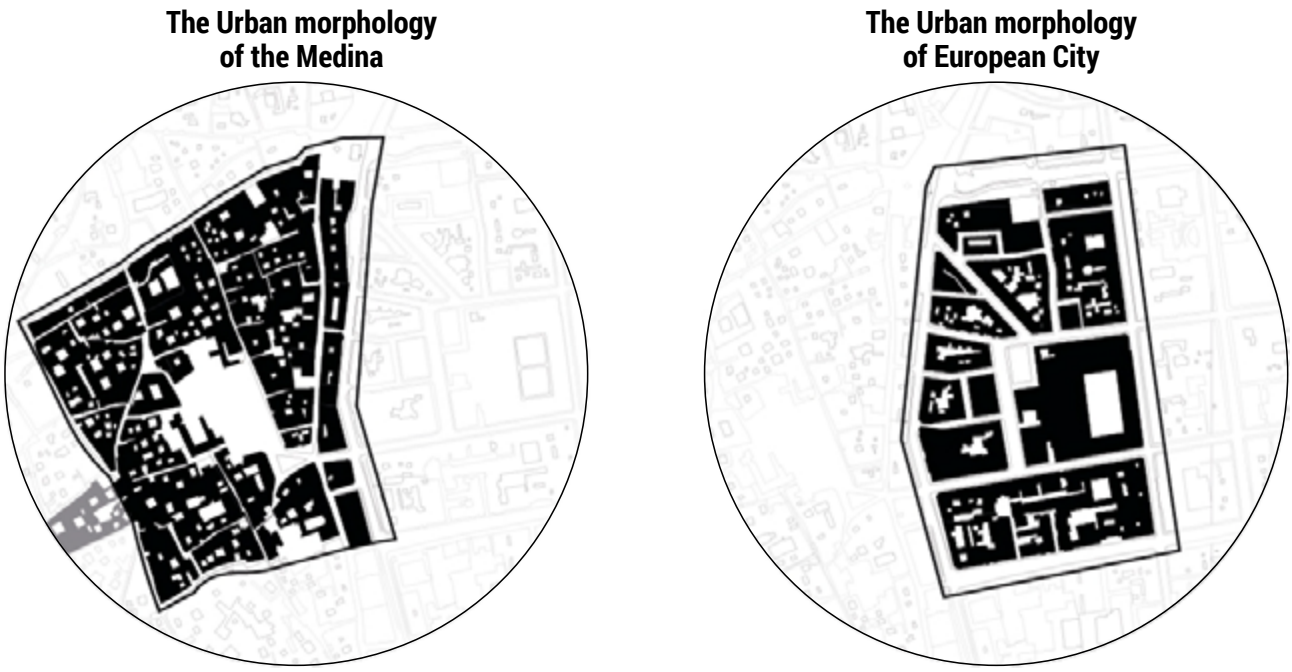

Figure 3.8: Urban morphology of the study area with contrasting features in the Medina part (left) and European part (right)
© Authors, 2024

3.3. Urban Morphology of The Study Area

The urban characteristics of the study area, which encompasses both the Medina of Tunis and the European city, reflect a striking contrast between two distinct urban morphologies, stemming from different historical periods and planning logics. The diversity observed in this area is the result of the interaction between traditional Arab-Muslim spatial organization and modern urban design influenced by modern European urbanism.

Contrasting Morphologies and Urban Textures

The ground plan reveals two contrasting examples of historical urban development. To the west, Medina represents a prime example of the traditional urban form of the Arab-Muslim city. Its layout is organic, characterized by narrow, winding streets that create a complex, maze-like urban structure. Narrow and winding alleys, primarily designed for pedestrian traffic, maximize protection from the climate by providing shaded pathways and enhancing privacy and security.

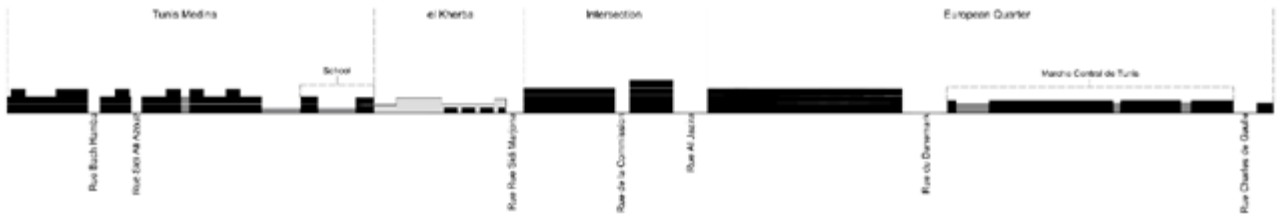

Figure 3.9: Site section
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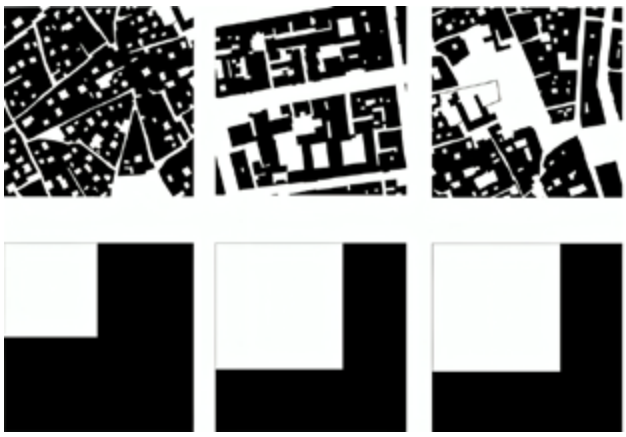

Figure 3.10: Urban form convergence
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Buildings are densely arranged, often incorporating courtyards or smaller internal passages to ensure privacy and provide shelter from the intense heat. The interlocking building structures leave limited open spaces, yet public areas like the Palace of Torbet El Bey, which incorporates vegetation, stand out as vital communal hubs. The larger communal or public structures within Medina include mosques and souks (markets), which serve as focal points of activity. This spatial arrangement reflects a deliberate effort to optimize available space within the confines of Medina's historic ramparts.

In stark contrast, the European city's morphology reflects a modern approach to urban planning, with wide, straight streets organized in a geometric grid pattern.



Figure 3.11: A collection of scenes highlighting key urban features of the Medina, including its architectural character (top) and users' practices (bottom)
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Figure 3.12: Photo of a neglected building taken from Al Jazira Street
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Figure 3.13: Photo of a well-maintained building taken from Spain Street
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Figure 3.14: Photo of a neglected building taken from the medina near Al-Kherba
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This design provides clearer orientation, improved visibility, and greater accessibility and facilitates efficient vehicle traffic, access to infrastructure, and connectivity. Major avenues, such as Avenue Habib Bourguiba, serve as central axes surrounded by public spaces and large administrative or residential buildings. Unlike the dense layout of the Medina, the openness of the European city allows for the inclusion of tree-lined streets and green spaces, which often mark intersections and provide areas for social interaction, gatherings, and even informal commercial activities by street vendors. The larger building footprints allowed by this grid structure also enable taller constructions. This clear distinction in urban form highlights not only differences in architectural philosophy but also reflects contrasting cultural influences.

The Medina's roughly 24.5% open space to built environment ratio reflects a compact, enclosed urban environment focused on privacy and community, whereas the European quarter's 45.5% open space highlights a more structured, European-style urban layout. Interestingly, Al-Kherba exhibits the same built-to-unbuilt ratio as the French quarters, emphasizing the distinctive character of this unique Medina area and its intrinsic potential to serve as a positive link connecting the Medina with the European quarter at a crucial urban juncture. As part of the larger open spaces within central Tunis's urban fabric, Al-Kherba's open area already plays an important role, fostering a special sense of spatial separation.



Figure 3.15: Photo of a better condition from the medina near Al-Kherba
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Figure 3.16: Visible decay on an ancient residential building's facade in the Medina
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Figure 3.17: Informal commercial activities within a cloth-covered street
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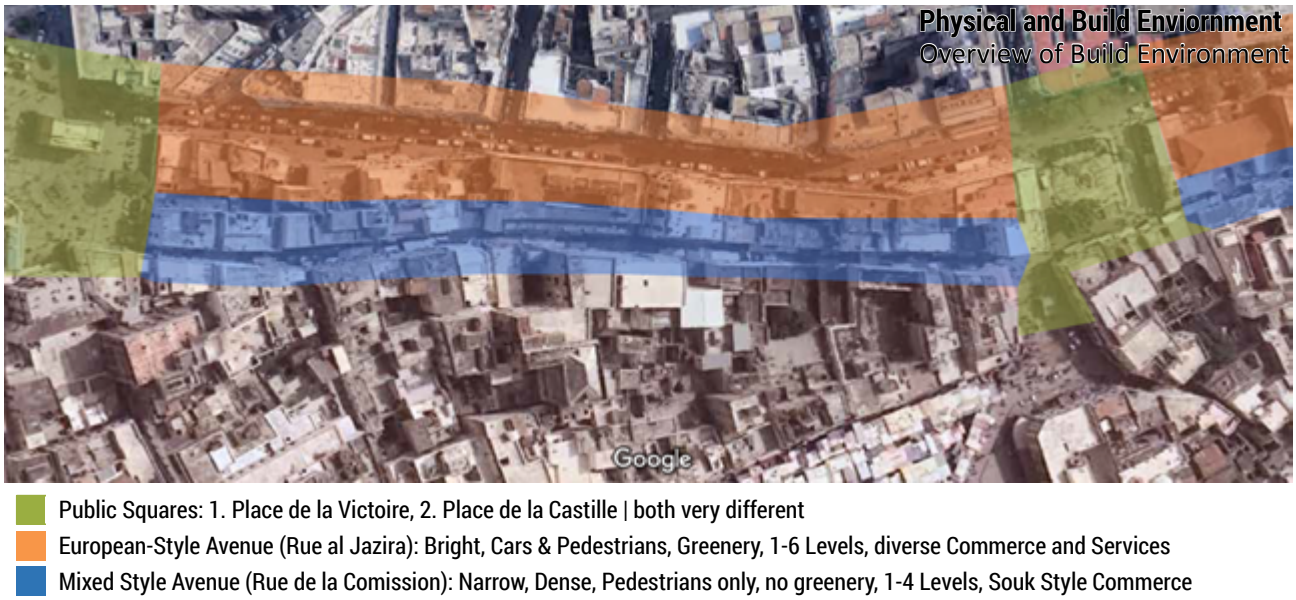
The contrasting proportions of street height and width characteristic of the Medina and the European city often create a unique experience for pedestrians. Al-Kherba serves as a key transitional zone uniting these two distinct urban areas and offers potential to facilitate movement across an otherwise bustling cityscape. Covering approximately 8,000 m², Al-Kherba's open space represents a rare opportunity within a highly dense urban environment.

On another level, in the Médina, traditional dwellings are characterized by their privacy-focused architecture, often organized around central courtyards that provide light and ventilation. While some historic buildings have been restored through preservation efforts or private wealth, many structures suffer from neglect, with visible deterioration such as cracked walls and weakened roofs due to economic challenges and aging materials.

In contrast, the European quarter features taller buildings inspired by the Haussmannian style, alongside public and administrative structures with wide street-facing openings such as balconies and large windows, reflecting an open spatial concept and modernity.



Public Squares: 1. Place de la Victoire, 2. Place de la Castille | both very different
European-Style Avenue (Rue al Jazira): Bright, Cars & Pedestrians, Greenery, 1-6 Levels, diverse Commerce and Services
Mixed Style Avenue (Rue de la Comission): Narrow, Dense, Pedestrians only, no greenery, 1-4 Levels, Souk Style Commerce

Comparison:



Figure 3.18: Contrasting community spaces at Al-Kherba
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Figure 3.19: Shops and vendors under the covered Rue de la Commission
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While generally structurally sound, these buildings show moderate signs of wear, including peeling paint and aging facades, while public spaces like sidewalks receive uneven maintenance.

The streets of the medina, as well as those of the European city, are extensively appropriated by residents. Rooftops in the Médina are primarily used for private purposes, whereas in the European quarter, some rooftops on Habib Bourguiba Street serve as public gathering spaces, offering opportunities for social interaction and scenic views.

Al-Kherba has the potential to bridge the two urban landscape models. However, this role is unfulfilled due to the space's origin as a condition and the lack of deliberate urban planning.

Al-Kherba can also encourage walkability since the Medina's Street network is highly walkable, whereas walkability in the European city is hindered by vehicle encroachment and street vendors. It is important to note that in the medina, the dominant souk model involves vendors displaying goods outside their shops, partially occupying public pathways. This pattern also extends to the European city, leading to excessive sidewalk usage.

The map below highlights the contrasting characteristics of Rue al Jazira and Rue de la Commission as community spaces within the Kherba site, reflecting their distinct spatial characteristics and social interactions. Rue al Jazira, a wide street with greenery and mixed-use buildings, serves as an inclusive space that accommodates both vehicular traffic and pedestrians. Its openness, coupled with diverse commerce and services, promotes a vibrant, multi-functional community hub, fostering interaction and accessibility. On the other hand, Rue de la Commission, characterized by its narrow, pedestrian-only pathways and dense souk-style commerce, creates a more intimate and traditional community space.

Its compact design encourages close social interactions and supports localized economic activities, but the lack of greenery and limited spatial capacity may constrain its functionality as a public gathering space. Together, these streets demonstrate how varying urban layouts shape the nature and quality of community engagement within the area.

Land Use Patterns and Functions

In our study area, the European quarter is distinguished by its polyfunctional nature, with buildings accommodating a wide variety of uses. Most buildings feature ground-floor shops that contribute to vibrant economic activity, while the upper floors are designated for residential purposes and office spaces[13]. This mixed-use configuration reflects the typical spatial organization of urban centers, where the close proximity of workplaces, homes, and commercial establishments fosters seamless interaction among different urban functions.

The transitional zone, located at the boundary between Medina and the European city, also exhibits a multifunctional character, but it stands out as a major commercial hub. Streets like Rue de la Commission and Rue de la Jazira epitomize the vibrant traditional commerce at the heart of Medina. These bustling commercial arteries host a diverse range of activities, attracting Medina residents and visitors from outside the area, thereby strengthening the connection between the two parts of the study area.

Finally, the Medina segment of the study area is defined by its own polyfunctional model, combining economic and residential activities. While the Medina retains its strong residential character, with traditional homes playing a prominent role, it also serves as a vital center for crafts and commerce, where souks and workshops coexist with residential spaces.

13 Today, they are mainly used for offices.



Figure 3.20: Spread of cultural and social services
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Overall, the study area is characterized by a high degree of polyfunctionality, with a rich mix of commercial, residential, and professional activities. This diversity enhances the complementarity of urban functions, contributing to the area's functional intensity and vitality.

3.4. Al-Kherba: A Socio-Economic and Spatial Hub

Social infrastructure and Community Facilities

Al-Kherba neighborhood serves as a pivotal hub for diverse social and cultural infrastructure. Functioning as a key transit point between the traditional Medina and the European quarters, it also interconnects various souks, including the Souk Sidi Bou Mendil and Al-Jazira Street. Renowned for its strong commercial identity, Al-Kherba is marked by high traffic volumes, pedestrians as well as cars, and frequent congestion, reflecting its central role within the urban fabric of Tunis.

Not far from Al-Kherba neighborhood (300 meters from Al-Kherba open space) lies Bab Bhar, also known as Victory Square (Place de la Victoire), a bustling public square and prominent urban crossroads that links the historic Medina with modern Tunis. This vibrant space attracts both locals and tourists, offering a lively atmosphere surrounded by cafes, shops, and notable landmarks. Bab Bhar serves as an essential social and commercial hub, illustrating the active governance between the city's traditional and contemporary landscapes.

Bab Bhar is not only known as a vibrant hub but also as a key point of connection between Tunis and Algeria, thanks to taxi stations that provide direct routes across the border. This connectivity significantly boosts the local economy by facilitating cross-border trade, supporting local businesses and jobs, and enhancing the relationship between Tunisia and Algeria.

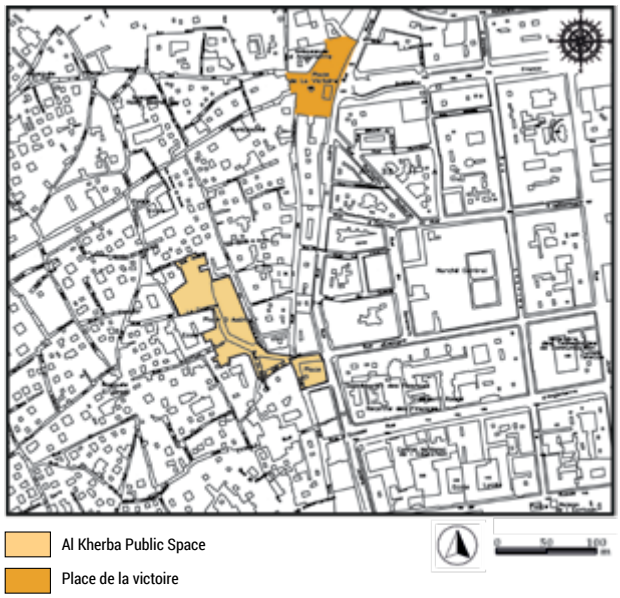







Figure 3.21: Bab Bhar: a vibrant urban hub
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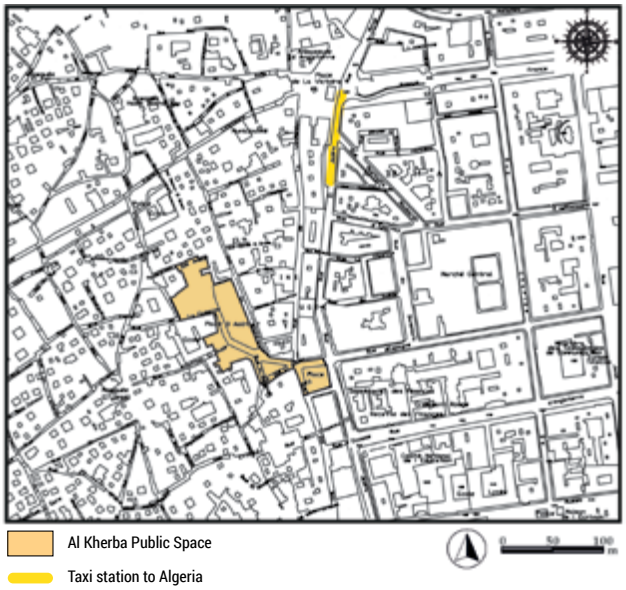



Figure 3.22: Public space and transport services at Al-Kherba
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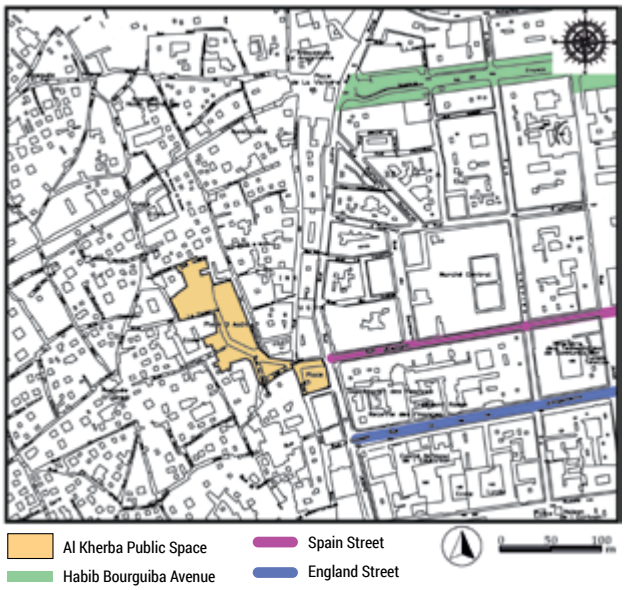



Habib Bourguiba Avenue



Spain Street



England Street

Figure 3.23: Spatial context and street interfaces of Al-Kherba public space
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The European section near Al-Kherba showcases a blend of colonial and modern architecture, characterized by wide avenues, cafes, and shops that contribute to a vibrant urban setting. This area, dense with government buildings and cultural institutions, is a high-density, multi-functional zone central to economic activity, housing, and services. Al-Kherba's connection to key streets, Spain Street and Russia Street, enhances its role in the city's economic landscape. Both streets are essential commercial arteries in Tunis, attracting significant foot traffic and supporting local commerce through a diverse mix of retail and casual dining options. Spain Street, in particular, hosts an estimated 300 to 330 vendors offering a wide range of seasonal goods, clothing, household items, and products tied to religious and holiday events. These items, often sold at lower prices or quality, bypass traditional



Figure 3.24: Vendors occupying the public space in Spain Street near Al-Kherba open space

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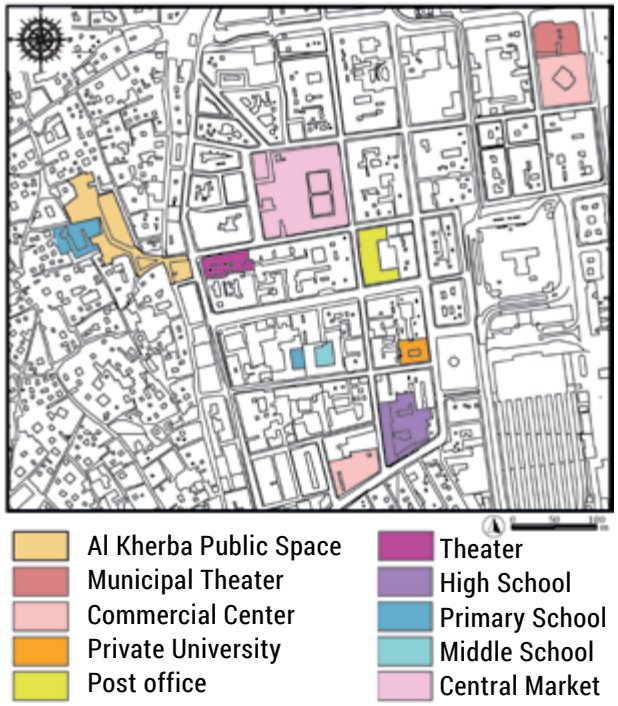



Central Market



Municipal Theater



Primary School

Figure 3.25: Al-Kherba main urban infrastructure and public amenities

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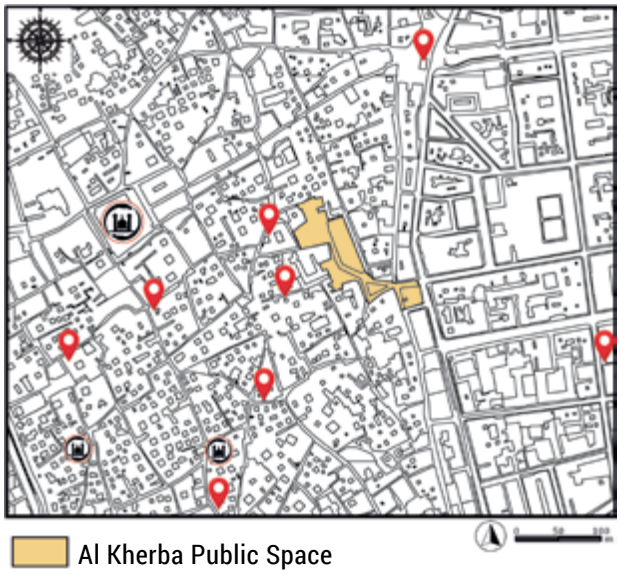
customs channels, with many goods smuggled in from Algeria, a practice that shifted from Libya post-2011. This informal economy plays a critical role in daily transactions, providing accessible goods to the local population and sustaining employment in the area.

Al-Kherba neighborhood boasts a diverse and essential infrastructure fabric, encompassing educational, commercial, financial, and civic facilities. This array of public amenities not only supports local residents but also contributes to the neighborhood's economic and social vitality.

Al-Kherba neighborhood also includes, and is surrounded by, important facilities, like the central market (the biggest fresh market in the capital) and the municipal theater. This makes the site a popular destination for visitors from across the capital.

The Medina section of Al-Kherba hosts a wealth of historical and cultural landmarks, with significant structures, including palaces, mosques, and fountains, that bear testament to an extraordinary historical legacy. In contrast, the nearby European Quarter, developed in the 19th century during the French colonial period, presents a blend of European architectural styles that juxtapose the ancient Arab Islamic character of Medina. This unique architectural layering highlights the diverse influences shaping the identity of the neighborhood.

Al-Kherba and its surroundings within the Medina of Tunis demonstrate the complex balance between historical preservation and changing land use. While still maintaining its commercial hub, the area also serves more utilitarian purposes, reflecting the ongoing evolution of urban space.





Mosque Zitouna



Dar Bach Hamba



Bab Bhar

Figure 3.26: Historical buildings around Al-Kherba
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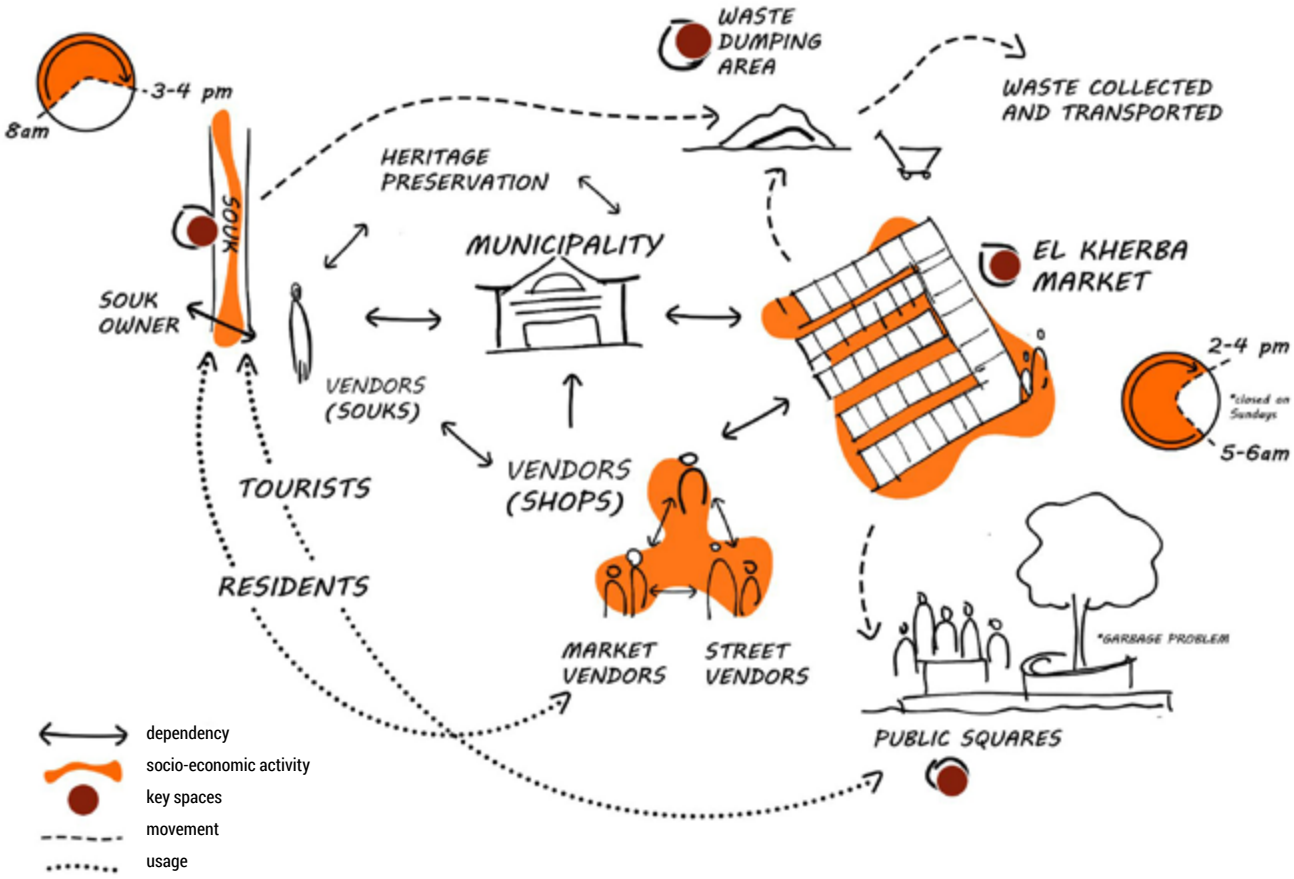

Figure 3.27: Socioeconomic interactions around Al-Kherba
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This underscores the broader challenge of integrating modern functionality with sustainable development and heritage conservation in historic city centers.

Socioeconomic activities

Identifying all activities and processes within the study area presents certain challenges. This section focuses specifically on Al-Kherba open space and its interactions with surrounding urban activities. The accompanying process diagram illustrates the principal socio-economic interactions occurring in and around Al-Kherba open space.

This diagram illustrates the interdependence between social and economic processes in Al-Kherba. It highlights key aspects of the meso-scale analysis, including the Municipality's central role in providing infrastructure and services, as well as the influence of commercial activities on the rhythm and temporality of social life in the area.

It also shows that vendors (markets, shops, souks, street vendors...) are not individual and isolated actors, but each entity has a specific role and is contributing to a bigger, complex system. More specifically, several vendors in the center of the open space (indicated in the map as Al-Kherba market) serve as storage or retail distribution units for other shops, operating as a complex and distributed system centered around very similar products (mainly clothing), reminiscent of the traditional souks of the Medina. Other stores provide amenities for visitors, such as cafés and old shops selling traditional lemonades and pastries.

It is worth noting that informal vendors, including those who were granted authorization in 2019 to establish themselves in the center of Al-Kherba open space, operate within networks. Their tribal affiliations form the backbone of their organizational structure and serve as a form of protection for their presence, often reinforced by tacit agreements with authorities regarding the locations and times of their occupation.

Mobility, Transportation and Access Patterns

The mobility structure within the study area is characterized by stark contrasts between the Medina and the adjacent European city. These layers of investigation; road network configuration, transportation modes, access to public transit, and pedestrian experience reveal how spatial mobility patterns influence public space use and user experiences.

a. Mobility Patterns on the Medina

Mobility in Medina is shaped by its historic urban fabric. The road network consists of narrow, winding and cobbled alleys designed for pedestrian movement. These streets are largely inaccessible to modern vehicles, with exceptions at the periphery or through informal vehicle use. Residents and visitors of Medina rely primarily on walking and on transportation links available in the European part of the city.





Figure 3.28: An elderly man (bottom) and another younger man (top) transporting goods on wheelbarrows, an adaptation to Medina's narrow, vehicle inaccessible streets

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b. European City Influence on Mobility

In contrast, the European city has a well-structured and hierarchical road network. Main arteries, such as Avenue Habib Bourguiba, facilitate vehicular access and are supported by secondary streets and a range of public and private parking options. However, this leads to challenges, such as traffic congestion and competition for parking among different user groups. Al-Kherba, due to its proximity to Al Jazira Street and Castile Square, experiences the negative externalities of this congestion: noise, air pollution and reduced pedestrian comfort, particularly intensified by high heat temperatures and a lack of shade.

c. Proximity to Public and Shared Transport

The area is well-integrated into the city's transit system, Gare de Barcelone and Gare Tunis Marine, providing extensive rail and metro connections, especially with the presence of TGM's (Tunis-Goulette-Marsa) departure point, linking downtown Tunis with the northern suburbs, including La Marsa, Sidi Bou Saïd, and Carthage. Al-Kherba, while not a principal node of connectivity, is strategically positioned near major transport hubs, which enhances its accessibility and transitional character between the Medina and the wider city.

d. Accessibility Challenges

Beyond public transport, the study area benefits from its proximity to a shared taxi rank, offering fast and affordable connections to areas not well served by buses, such as suburban or interior towns. Private taxis, widely used across Tunis, provide flexible travel options throughout the day.

However, despite this strong connectivity, public space accessibility remains limited. Formal infrastructure barriers and informal street occupations create obstacles for people with reduced mobility, undermining equitable access and comfort.

e. Synthesis of Findings and Implications for Public Space Design

Layered mobility patterns analysis in and around Al-Kherba reveals both assets and limitations. The findings and public space interventions could transform Al-Kherba into a more inclusive, comfortable, and integrated node in the urban mobility network; hence, they could inform future public space improvements:

- Connectivity as a Strength: Al-Kherba's role as a passageway between key transit hubs and the Medina functioning as a vital pedestrian corridor that links historic and modern urban fabrics to enhance its relevance and strategic city value.
- Comfort and Safety Deficits: Environmental stressors such as vehicular congestion, noise, and heat detract from the quality of the public realm and underscore the need for shaded, pedestrian-friendly interventions to enhance comfort and reduce exposure to pollutants.
- Inclusivity and Accessibility Gaps: Addressing barriers, such as current spatial arrangements and informal activities that pose significant challenges to people with disabilities or with limited mobility, through design and management to ensure equitable public space use.
- Opportunity for Integrated Mobility Hubs: The proximity to multimodal transport infrastructure offers potential for Al-Kherba to become a more structured mobility internode, integrating wayfinding, rest areas, and green corridors, connecting movement with experience.

Demographics, Social and Economic Profile

Since Al-Kherba Neighborhood has no widely accepted or shared boundaries, and the study area does not align with any administrative or statistical division, it is difficult to accurately estimate the population. Al-Kherba is situated between four urban sectors (Bab Bhar, Sabbaghin, Sidi Boumendil, and Sidi

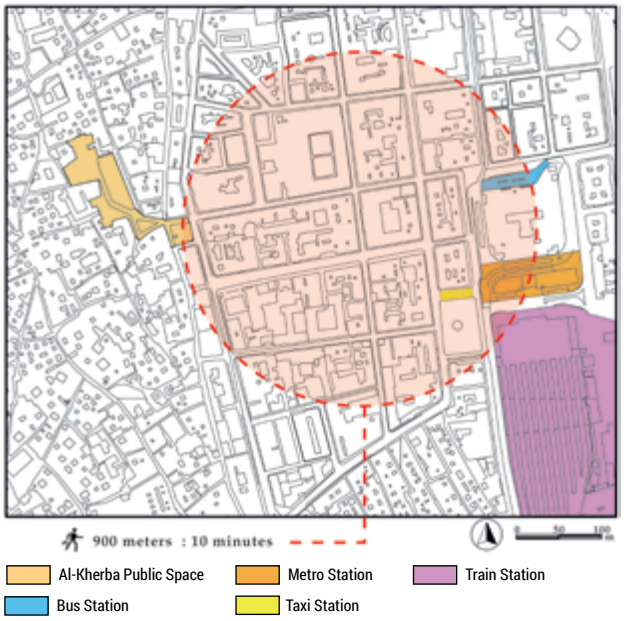

Figure 3.29: Map showing the main public transportation nodes near Al-kherba

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Ali Azouz), which have a total of 8,281 inhabitants and 3,131 housing units (INS 2014). The population includes original residents and newcomers who occupy (through low-rent leases or squatting) homes abandoned by their occupants in favor of modern neighborhoods. This situation is exacerbated by complex inheritance issues, properties left by foreigners who left Tunisia after independence, and the resulting degradation of buildings.

Consequently, properties in this part of the city are often used for storage (warehouses) and by very low-income households. Buildings in good condition are occupied by services such as lawyers and notaries. The commercial activities of the area can be roughly divided into informal and formal. Formal vendors cover a wide range of categories (wholesale, clothing and textiles, food services, jewelry and watches, food products, crafts, stationery, etc.). Some are established in shops, while others use kiosks (an example is Al-Kherba market described below). Informal vendors are of two types: those who use stalls or kiosks and street vendors. In this case informal commercial activities include vending that is happening by occupying public space for selling or by using spaces that are not rented for this activity. Formal vendors often informally occupy the public space next to their shops/kiosks as an extension for their activity.

As a result, Al-Kherba is more frequently used by its visitors than its residents. Visitors include vendors and workers in the neighborhood (both formal and informal), potential customers, and those who use Al-Kherba on their way to public transport stations. The customers and passersby are generally from less advantaged social classes, reliant on public transport, and heavily dependent on low-cost informal trade. Informal street vendors, in particular, tend to carry only small quantities of merchandise, a strategy that facilitates quick escapes in case of police raids and minimizes potential losses during enforcement sweeps.

Ownership and Land Management Structures

The question of ownership remains complex, both within Al-Kherba itself and in the neighboring sites. Regarding Al-Kherba open space, after the bombing of the houses, the open space was managed by the municipality as a public space, without identifiable rights holders.

According to the municipality, this site can continue to be treated as municipal space, even though investigations conducted for this study revealed that some areas of the public space are being claimed by individuals asserting land ownership rights. For the surrounding sites, different categories of ownership are observable. Many original owners of historic houses in Medina relocated to northern suburbs like Sidi Bou Said or Marsa. This shift, driven by rural migration and intensified by an influx of people from interior governorates seeking better employment and living conditions, led to housing shortages and strained urban resources.



Figure 3.30: Informal street vendors carry limited merchandise quantities

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Figure 3.31: Shop at Souk Blat market

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As a result, numerous vacant properties in Medina were transformed into "Oukala", collective spaces where individual rooms are rented to unrelated families. This adaptation has significantly influenced Medina's social and spatial structures, further complicating property ownership and management within the neighborhood.

In the European city, the departure of European residents left many properties, including shops and buildings, in legal limbo (in addition to those sold to Tunisians).

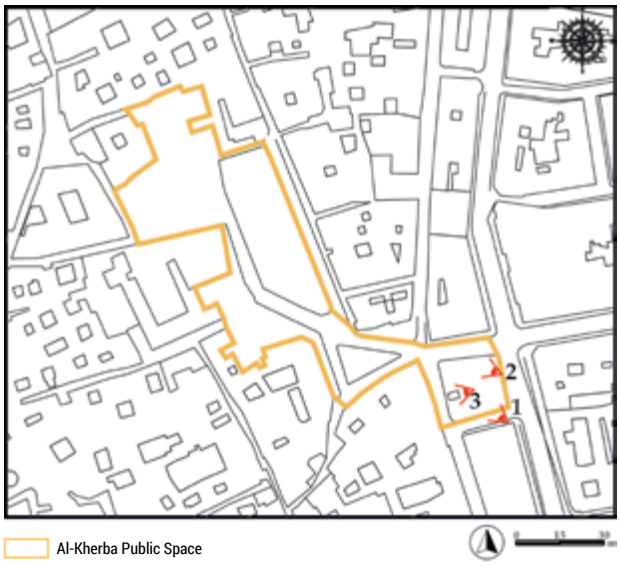
While some of these properties were managed by the Tunisian government and repurposed for public use, others have been informally occupied by local residents or remain vacant. Most shops have owners or very old leases. Many kiosks have been authorized by the governorate to aid informal vendors. This blend of unresolved ownership and communal living arrangements adds layers of complexity to property governance and heritage preservation in the neighborhood.

3.5. Components of Al-Kherba Open Space

Al-Kherba open space is an unplanned void within a dense urban fabric, created accidentally rather than intentionally designed as a public or green space. Nevertheless, portions of the area have been subject to various development actions, which are presented in the following section.

Place de Castille

Place de Castille is a 540-square-meter public space with historical significance, initially created by the Spanish consulate between 1860 and 1880. The consulate, located across from the square, desired a green space in front of its building, especially given its reputation for frequently organizing balls. The consulate successfully petitioned the municipality of Tunis to designate the area as non-buildable to prevent obstruction of the consulate's view.





1: Women sitting in shaded corner



2: Pergola structure



3: Mural wall with peace symbols

Figure 3.32: Place de Castille

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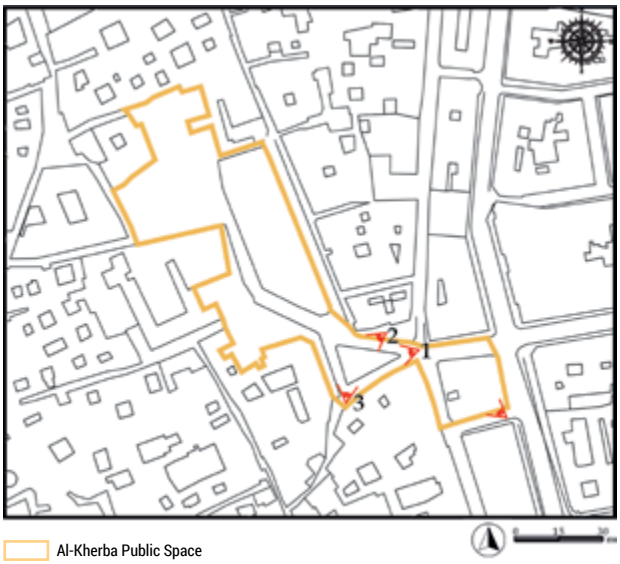
Positioned strategically between Rue d'Espagne and the former Spanish consulate, the square serves as a reminder of the intertwined histories of Spain and Tunisia. The square's name, honoring the Spanish region of Castille, reflects the historical and diplomatic ties that influenced the development of Tunis during this period.

For several years, this space was neglected and used by street vendors. It was only in recent years that it was redeveloped into a public garden to reduce the risk of it being reoccupied by street vendors. Notably, a police patrol is stationed continuously next to the square, helping to prevent informal occupation. The square now includes modern amenities, such as public benches, streetlights, and strategically placed trees, which provide both comfort and aesthetic appeal. Surrounded by historic architecture, Place de Castille stands as a reminder of the rich and layered past of Tunis, embodying the blend of European influences that have shaped parts of the city's identity. The location and symbolic importance of this square make it a unique feature within the urban landscape, bridging the historical legacy of the colonial period with the present-day life of the neighborhood. The square serves as a social and cultural landmark within the area, offering open space for gatherings, small events and informal interactions among residents and visitors. A vibrant mural fresco was added to Place de Castille, symbolizing peace, love, and tranquility. This artwork, created through collaboration with local artists and the local stakeholder 'Art Rue' initiative, not only enhances the aesthetic appeal of the square but also carries a powerful message of unity and harmony.

The Triangular Green Zone: Perception and Potential

Spanning 220 square meters, a modest yet important area within the neighborhood. It features a few trees that provide some shade.





1: Street vendors selling surrounded by garbage



2: Neglected space and vegetation



3: Garbage collection spots by community members

Figure 3.33: Environmental and aesthetic degradation in Al-Kherba open space
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The space also includes two commercial kiosks, which serve as small retail outlets; one is informal, and both are occupying part of the public space, in addition to the kiosks.

However, the space is marred by a significant issue: litter and trash pieces, such as cardboard boxes and plastic bags, are scattered throughout the area, detracting from its aesthetic and environmental value. It is also used for motorcycle parking by the vendors.

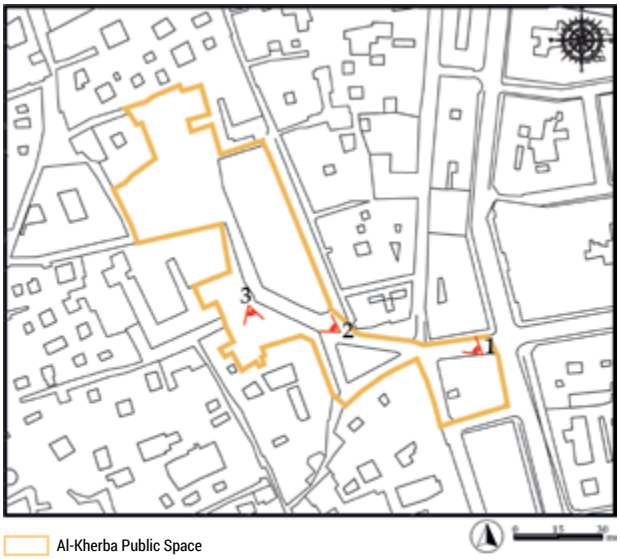
The Paved Square: Usage and Character

The paved square, covering an area of 260 square meters, serves as a vibrant public space, although its layout is heavily influenced by the presence of a nearby coffee shop.

While a few trees are scattered throughout the area, the majority of the square is occupied by tables and chairs belonging to the coffee shop.

The layout reflects the square's role as a popular gathering spot, where the coffee shop has integrated itself into the fabric of the space. Yet, the dominance of tables and chairs can make the square feel more like an extension of the café rather than a shared public space.

This arrangement could be both an asset and a challenge, as it encourages social interaction but also limits the flexibility of the space for other uses.





1: People shopping under shade



2: Vendors, pedestrians, and vehicles in a crowded street



3: Café using pavement as an extension

Figure 3.34: Commercial activities affecting public space
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3.6. Local Governance, Institutional Influence, and Prospects for Participation

This section explores the interactions and complexities of local governance in Al-Kherba neighborhood, emphasizing the intricate relationships between key stakeholders, institutional frameworks, and the evolving potential for community participation. It delves into the roles played by municipal authorities, heritage institutions, civil society organizations, and local actors in shaping the management, preservation, and development of public spaces. Furthermore, it highlights the challenges and opportunities for greater civic engagement, particularly in light of recent shifts towards more inclusive decision-making processes. By examining the stakeholder landscape and exploring avenues for increased local participation, this section lays the groundwork for effective, context-sensitive interventions in Al-Kherba area.

Governance Structures and Local Institutions

The analysis of stakeholders in Al-Kherba neighborhood reveals a complex web of actors with varying degrees of influence and interest, each playing a distinct role in the management, preservation, and development of public spaces. In addition to the traditional actors defined for green spaces in Tunisia in the first chapter (and mainly the municipality of Tunis), other actors are identifiable:

- At the institutional level, the Association de Sauvegarde de la Medina (ASM) remains the main technical body to be consulted and involved in any development actions within the constructions or public spaces of the Medina. Additionally, the Institut National du Patrimoine (INP) is an essential actor for any action concerning a classified area or building and its surroundings. Moreover, there is a primary school directly facing Al-Kherba. It is also worth noting the permanent presence of the police on the site, preventing the occupation of the square by street vendors. Another point to highlight regarding the municipality: not only is it the main actor due to its prerogatives as a manager of public space, but it also plays a significant role.
- At the level of CSOs and NGOs, the presence of Art Rue and Hamra Theatre (Espace Culturel Mdag el Halfa) as two very active entities on the site. Mdinti, an economic interest group composed of 22 restaurateurs, hoteliers, and artisans in the Medina, is also an important actor to involve, given their efforts to enhance the attractiveness of the Medina. International programs such as Femmedina by Cities Alliance

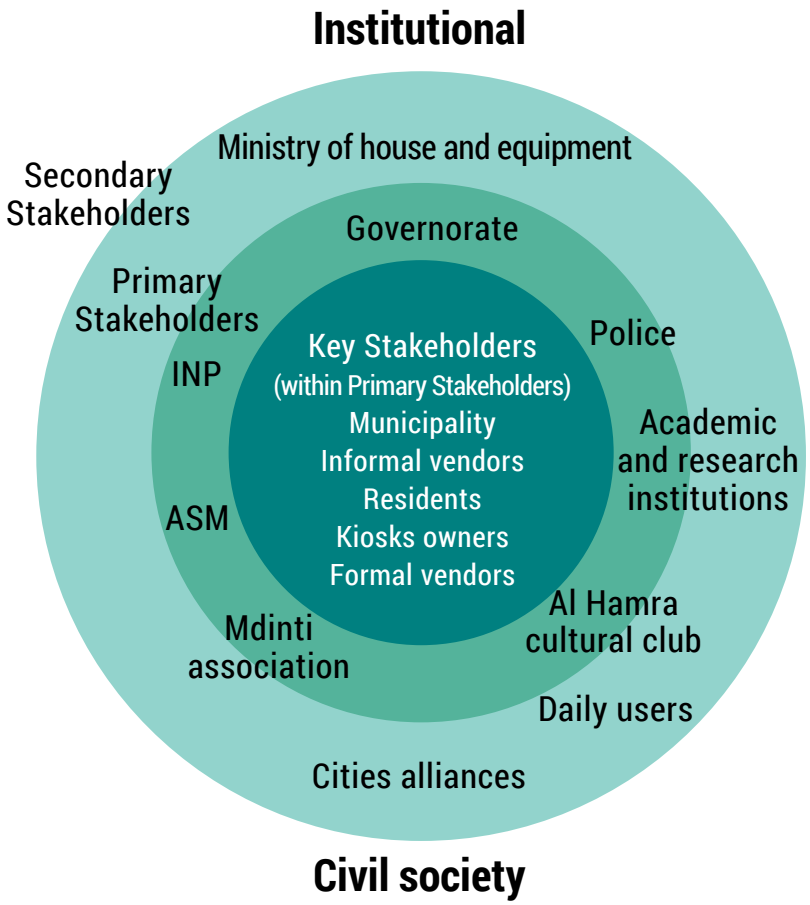

Figure 3.35: Stakeholders' diagram
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and Afrifoodlinks (Hivos) call on their involvement in any development actions. Some sites, such as Rue de l'Ancienne Poste, see the presence of a local association (Boubli[14]) active in transforming and animating the place.

- At the level of ordinary actors, Al-Kherba and its surroundings are characterized by a significant number of vendors (both formal and informal) and passersby.

The stakeholder map distinguishes between primary, secondary, and key stakeholders, highlighting the diversity in their objectives, resources, and impact on urban governance.

Figure 3.35 provides a view of institutional, non-governmental, and civil society stakeholders. Primary stakeholders, including the municipality, informal vendors, residents, kiosk owners and formal vendors, are essential in formal urban governance, overseeing regulations and enforcement in Al-Kherba. The diagram also highlights in the first circle the pivotal role of ordinary stakeholders like kiosk vendors and local residents, who interact with the space daily and are integral to its social and economic fabric, yet often lack a voice in decision-making. In contrast, secondary stakeholders, such as the police, INP, the governorate, NGOs, cultural organizations, and community groups, contribute indirectly by supporting preservation efforts, community engagement, and sustainability projects. In the third circle, other stakeholders are mapped based on their level of influence and interest in public space governance. Government entities like the Ministry of Housing still hold a certain power to shape policies and implement strategies in Medina, in addition to international organizations and also daily users. These actors, even if they are not directly in charge of this public space, are critical to decision-making processes, enabling changes in public space planning and preservation.

Figure 3.36 interest and influence, classifies key actors according to their willingness and capacity to affect the site. While institutions such as the Municipality, ASM, and INP exhibit both high interest and influence, kiosk vendors emerge as the most significant on-the-ground actors. Any intervention in the area must carefully account for their presence and role in the site's operations.

Al-Kherba zone exemplifies a complex web of relationships, as it is significantly influenced by a diverse range of stakeholders, including informal and formal kiosk vendors, residents, and local authorities. Informal vendors, for instance, offer affordable alternatives to residents and passersby, directly impacting the zone's appeal and foot traffic. However, their presence often requires police intervention to manage conflicts or monitor activities, highlighting the tension between informal commerce and regulatory oversight.

14 Boubli is a project managed by the Tunisian Association for the development of digital culture, based in Rue de l'ancienne poste (Nahj Al Bousta).

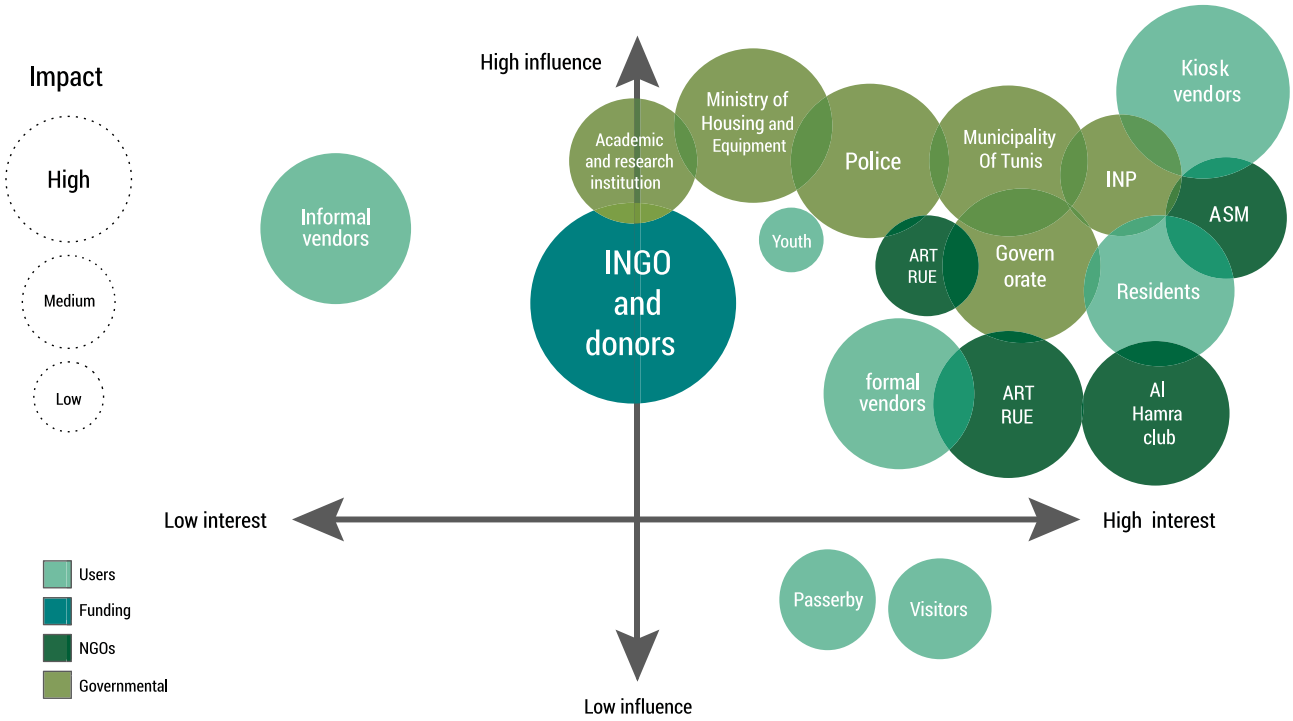

Figure 3.36: Matrix of stakeholders' influence vs. interest
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Formal vendors, on the other hand, contribute to the zone's structure and order, while residents, as primary users of the space, are deeply affected by the availability of goods and services, as well as the overall environment. Their satisfaction is a key factor in the zone's success. The influence of these stakeholders extends to decision-making, as demonstrated by informal vendors who successfully pressured local authorities (governorate) to grant them legal status and designated spaces for their kiosks. This shift not only transformed their role but also underscored the power of collective action in shaping urban policies.

Ultimately, the interplay between these stakeholders, whether through economic contributions, regulatory challenges, or community advocacy, has a profound impact on Al-Kherba zone and its surroundings. Balancing their diverse needs and interests is essential for fostering a vibrant, inclusive, and well-functioning urban space. In conclusion, the stakeholder landscape in Al-Kherba is a complex and often contentious mix of local authorities, heritage institutions, businesses, residents, and external developers, each driven by unique and sometimes conflicting interests in navigating the balance between preservation and modernization.

This diversity emphasizes the need for balanced representation and inclusive engagement in urban planning, green space design, and management to address these varied perspectives and foster sustainable and equitable development for the community.

Local Participation and Potential Public Engagement

While citizen involvement in public management has historically been minimal in Tunis, due in part to long-standing exclusion from decision-making processes, the post-2011 shift toward civic engagement has begun to reshape urban governance practices. In Al-Kherba, where daily activity is dominated by transient uses such as vendors, customers, and passersby, the potential for deeper community participation still exists. Interviews conducted with local artisans and residents[15] revealed a growing interest in contributing to the area's planning and management.

A notable example of this emerged during the September 2024 workshop, when a local pastry shop volunteered to water newly planted trees in the green triangle. This act, though modest, reflects a willingness to take ownership and could also serve as a foundation for nurturing broader co-management initiatives and a stronger local stewardship culture.

Development Plans and Strategic Projects

For Greater Tunis, and regarding the study area, the main orientations of the SDA (Schema Directeur d'Amenagement du Grand Tunis (SDA)) highlight the preservation and requalification of historical areas, like the Medina and European city center.

The main urban plan (PAU[16]) prepared by the municipality in 2017 also highlights the preservation of the characteristics of the city center. Medina and European cities have their own regulations.

In addition to the PAU, other heritage conservation and management tools exist and are in use for preserving heritage in Medina and the European city and are managed and implemented by the "Institut National du Patrimoine (INP)" and the "Association de Sauvegarde de la Médina (ASM)." The development of Tunis extends beyond formal plans like the PAU, encompassing several strategic initiatives. The "Stratégie de Développement de la Ville de Tunis" (SDVT) provides a comprehensive framework for sustainable urban growth. The SDVT plans to enhance the attractiveness and inclusion of the central part of the city and to strengthen its cultural attractiveness and identity. Additionally, the "Plan Vert de la Commune de Tunis" aims to enhance green infrastructure and biodiversity in all of the City of Tunis. The plan encourages community involvement through consultations and workshops, aiming to improve air quality, manage flooding, and support wildlife, all while collaborating with stakeholders to secure funding and implement projects effectively.

Few large-scale actions have taken place, such as The Association de Sauvegarde de la Médina (ASM), which aims to rehabilitate the image of the old city and redefine its role within the urban area of Tunis. Its mission is not only to preserve the uniqueness and unity of the historic city but also to ensure its integration into the rest of the city to prevent its isolation. This is exemplified by several important pilot projects, such as the Tourbet El Bey restoration and the redevelopment of Avenue Bourguiba. While private initiatives, including restaurants and artisan workshops, are now driving transformations, public involvement remains limited, with the exception of projects like the redevelopment of Sidi Ben Arous street.

The current regulatory framework, which prioritizes preservation, has not prevented interesting development projects from emerging in the city's central area. Thus, the development of Al-Kherba public space must reconcile heritage preservation with the enhancement of attractiveness in a format that strengthens identity and promotes green infrastructure and sustainability while ensuring collaboration among actors.

15 The interviews were conducted between September and December 2024 for two purposes: understanding the site and needs of the users and getting feedback about the first design proposals.

16 The PAU focuses on organizing land use efficiently to promote sustainable development, improve the quality of life, and ensure the balanced use of resources.

3.7 Conclusion: Al-Kherba for Inclusive and Sustainable Urban Renewal

Al-Kherba neighborhood, particularly its central open space, represents a unique opportunity within the dense urban fabric of Tunis. Despite prior development efforts, a more comprehensive and integrated urban intervention is needed to fully unlock its potential. Based on the comprehensive urban diagnosis, several critical themes must inform future actions. Future interventions must reconcile the area's rich heritage, socio-economic vibrancy, and environmental resilience while fostering a balanced and inclusive urban renewal process. Preserving Al-Kherba's plural identity is essential, ensuring that its unique historical and cultural fabric continues to serve as a foundation for community interaction and economic activity. Its function as a commercial and social hub must be strengthened through initiatives that promote equitable economic opportunities while addressing disparities in green space distribution. At the same time, efforts to enhance citizen participation and engage a complex network of stakeholders will be essential in mitigating social tensions and ensuring institutional cohesion.

Challenges such as inadequate infrastructure, limited resources for maintenance, and environmental pressures must be tackled through sustainable and adaptive urban design strategies. Climate resilience, in particular, demands immediate attention, ensuring that future transformations support both ecological integrity and public well-being.

A well-planned intervention in Al-Kherba can transform this historically significant yet underutilized space into a thriving, inclusive urban node, bridging tradition and modernity while reinforcing social and environmental sustainability. Al-Kherba stands as a powerful testament to the potential of urban spaces when thoughtfully integrated into the fabric of the community.

4 Assessment and Potential Development of Public Green Spaces in Al-Kherba



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4.1. Introduction and Assessment Methodology

After studying the issue of public and green spaces in Tunisia and in the city of Tunis, and after examining the characteristics of the neighborhood in which the project is located, this chapter first provides a detailed analysis of the project's site conditions and subsequently presents the main planning and design orientations.

The methodology for understanding and analyzing green and public spaces of the site in their urban environment involves three main components: (1) understanding the site through fieldwork, (2) conducting interviews with key actors and users, and (3) organizing the area into manageable sections for closer study.



Figure 4.1: Approach for green spaces analysis
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First, fieldwork is conducted to gain a direct understanding of the site. This includes activities such as direct observations, surveys, community mapping, and mapping existing situations, with a focus on the physical environment, available services, infrastructure, and mobility patterns. Additionally, resource mapping is used to identify key resources, and transect walks are carried out for systematic observation across various zones.

Networking with local community representatives is also essential to build connections and gain deeper insights into the area. Key activities in this phase include exploratory walks, transect walks, resource mapping, direct observations, building dialogue, interviews, focus groups, and data triangulation.

Second, interviews were conducted with key stakeholders and users to capture diverse perspectives and enrich the study with qualitative insights. The main institutional actors interviewed include the municipality and the Association de Sauvegarde de la Médina (ASM), as well as local NGOs and CSOs. A group of users, including residents, vendors, and visitors, was also interviewed to understand everyday experiences and needs. To ensure comprehensive coverage, the study area was divided into five zones, with community groups engaged in each. The number of individuals interviewed in each zone is as follows: Zone 1 (15), Zone 2 (20), Zone 3 (18), Zone 4 (27), and Zone 5 (28).

Finally, the area is organized into five manageable sections through a map division, allowing for a more structured and focused analysis. Sampling is used to select representative areas within these sections for closer examination. This approach ensures that the study captures both the broader context and specific details of the urban environment, providing a comprehensive foundation for understanding and improving green and public spaces. To ensure a comprehensive analysis, the study adopts a multi-scale approach. At the macro scale, the site is understood through desktop research, exploratory walks, map division, and sampling. At the meso and micro scales, detailed fieldwork is conducted, including networking with local community representatives, resource mapping, transect walks, direct observations, surveys, community mapping, and mapping existing situations.

By integrating these methods, the study ensures a thorough understanding of the urban environment, combining qualitative insights from interviews with detailed fieldwork observations and a structured spatial analysis. This holistic approach provides a solid foundation for proposing improvements to green and public spaces.



Figure 4.2: A holistic approach for a structured spatial analysis
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4.2. Visual and Environmental Diagnosis of the Area

An area blighted by waste, recurrent flooding and urban heat

Three major environmental issues have been identified. The first concerns the accumulation of waste, particularly from vendors, and the presence of a municipal waste collection center, which generates unpleasant odors and detracts from the view of the square. The second issue is related to climate. Rainwater does not drain efficiently, leaving persistent puddles after rainfall. This problem is worsened by the aging drainage network combined with the high level of surface mineralization. During periods of intense heat, crossing Al-Kherba remains challenging due to the lack of shade and the asphalt ground.

Lighting Deficiencies and Nighttime Use

The lighting infrastructure in the area is present; however, given the size of the space, providing adequate lighting for the entire area is challenging. Most lighting fixtures are concentrated along the main pathways.



Figure 4.3: Rainwater accumulated on impermeable ground
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Perceptions of Safety and Social Cohesion

Security in Al-Kherba area varies across different dimensions, including location and time of day. Beyond these spatial and temporal factors, social factors play a crucial role in shaping security conditions (A. Ghali, Y. Turki, 2018) and security perception is highly linked to gender. Approaches to security, whether from law enforcement such as police stations or presence, are fragmented and often inconsistently implemented in the area.

The commercial activities on the site close early, always before sunset. The area includes three religious sites: two mosques and one mesjid. Services available in the neighborhood include a school and a kindergarten. The only cultural facility identified is a theater. Public spaces consist of squares and open areas. The only association present in the area is L'Art Rue.

This density of activities has the potential to enhance perceptions of security, but it remains insufficient.

Urban Wildlife and Seasonal Visitors

The space is also frequented by cats, which find tranquility and interaction with residents and passersby in the microgreen spaces. The migratory birds also inhabit the trees on the site during the seasons.



Figure 4.4: Public amenities Around Al-Kherba
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Waste Management Challenges

The open space of Al-Kherba hosts a municipal waste depot used for storing waste collected from the Medina, where narrow streets hinder direct collection. Moreover, the site itself generates a considerable amount of waste, particularly plastic and cardboard, due to the unpacking of goods sold by vendors. Managing this waste involves a diverse range of waste collectors, categorized by size from the smallest (XXS) to the largest (XL). This system engages multiple stakeholders, including public entities, private actors, and neighborhood residents/vendors, each playing a specific role in waste collection, handling, and disposal. The process reflects a complex interaction between formal and informal governance mechanisms within the site.



Figure 4.5: Cats at Place de Castille neighborhood
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This diagram below represents the waste management process in Al-Kherba site, detailing the flow of waste collection from residential and commercial sources to the dumping stage. The process begins with multiple trash collection points, where waste is gathered through different scales of collection methods. The map illustrates waste collection routes and vehicle accessibility within Al-Kherba site. It highlights how different types of waste-collection vehicles navigate the area, categorized by their size and capacity. The color-coded pathways correspond to the vehicles' accessibility levels:

- XXS (Pink): Representing manual or pedestrian-based collection, often by workers carrying waste manually.
- XS (Red): Routes accessible to small motorized vehicles such as scooters with waste-collection attachments.
- S (Yellow): Suitable for small three-wheelers or similar

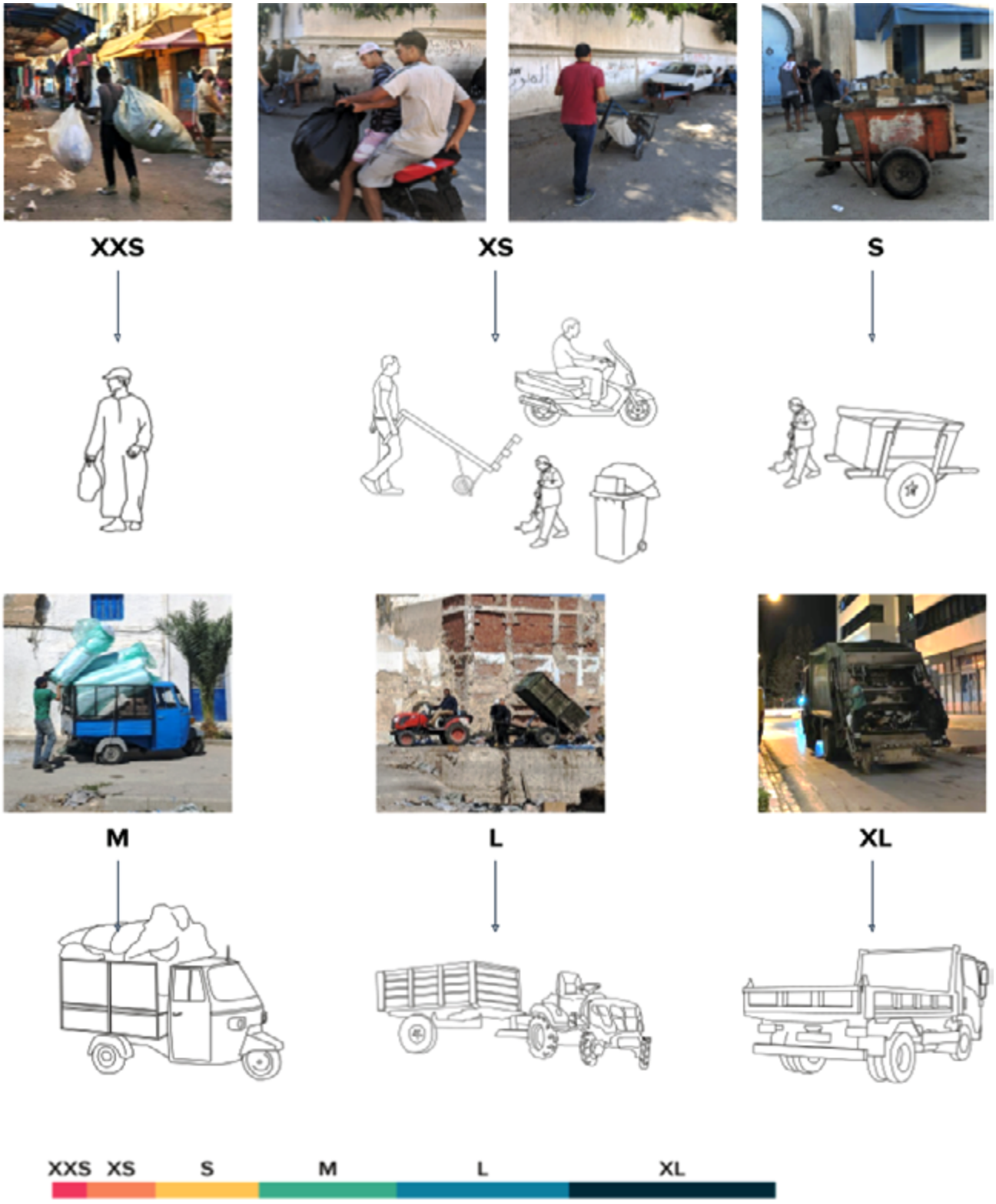

Figure 4.6: Waste system in the area
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Figure 4.7: Accumulation of trash in the study area
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vehicles used for waste collection.

- M (Light Blue): Pathways for medium-sized trucks or vehicles designed for moderate waste loads.
- L (Dark Blue): Routes that accommodate large trucks with higher capacity.
- XL (Dark Green): The largest vehicles for waste transportation, such as garbage compactor trucks.

The dumping ground serves as the central collection and disposal site. The arrows indicate the flow of vehicles toward the dumping ground, demonstrating accessibility and constraints imposed by the road network and urban layout.

Ultimately, all waste collected at Al-Kherba site and its surroundings is disposed of at a local dumping ground. Part of the separated items, such as plastic and cardboard, are also disposed of there. Those retrieved by barbacha (informal waste pickers) are collected and then transported by vehicles at the end of the day. For this purpose, vendors put their plastic and cardboard packages directly on the ground in front of their shops in order to facilitate the collection by barbacha. This situation leads to a deterioration of the aesthetics and the environment.

Observations indicate that the volume of waste generated and collected daily is substantial, underscoring the urgent need for more sustainable waste management practices. However, the amount transported by trucks at the end of the day remains lower than the daily waste production, resulting in a persistent accumulation of foul-smelling trash at the site.

Concluding notes: Greening, public space design and appropriate governance mechanisms could play a role in improving the place and neighborhood conditions

The site analysis reveals an overlap of multiple deficiencies. Despite its great potential as a central location in the heart of the capital, the current situation fails to take advantage of this asset. On the contrary, these various constraints turn Al-Kherba into a place of quick passage or transactional shopping, lacking any particular appeal or noticeable contribution. Moreover, these activities take place in poorly designed conditions, marked by inadequate infrastructure, climatic challenges, and persistent unpleasant odors.

This assessment also highlights the relevance of a greening approach and the development of a well-designed public space, both of which have the potential to transform the site's image significantly. Furthermore, the complexity of the site's operational system, including commercial activities, waste management, and mobility, with the multitude of stakeholders involved, makes governance a fundamental pillar in any proposed redevelopment strategy.

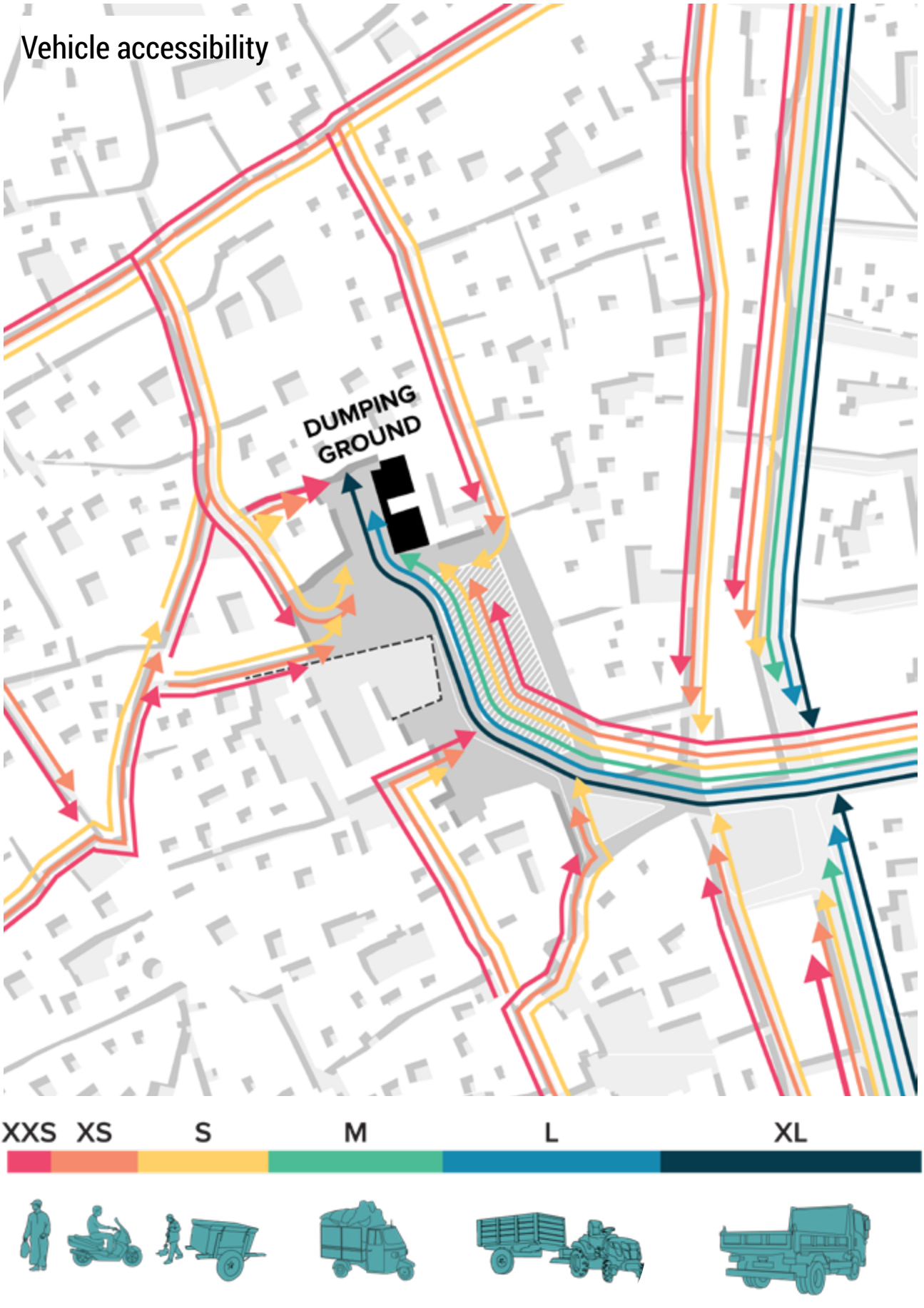

Figure 4.8: Waste management; collection, vehicle accessibility, and processing
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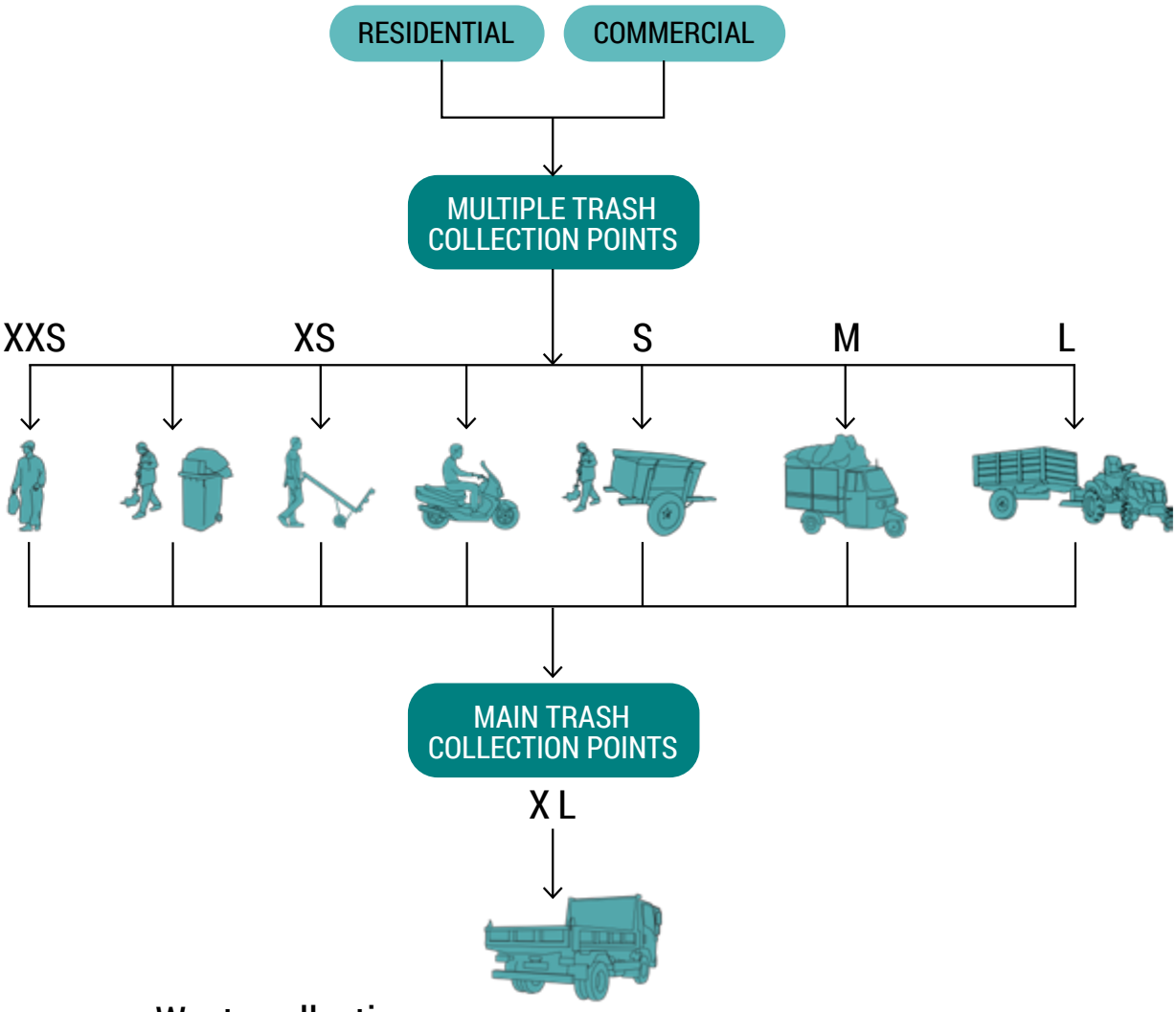
Mapping diagram of waste processing



Waste collection

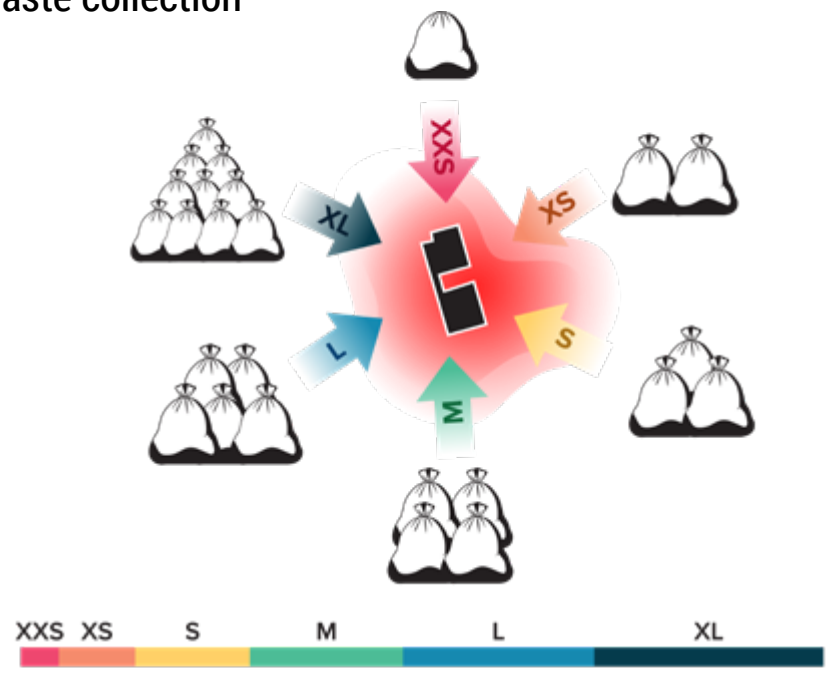






Figure 4.9: Plastic and cardboard used by the vendors and left in the site
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Figure 4.11: The municipal waste depot
© Authors, 2025





Figure 4.10: Barbacha collecting plastic left by vendors
© Authors, 2025



Figure 4.12: Tree providing shade in the European city
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4.3. Spatial Mapping of Existing Vegetation and Green Infrastructure Notes

The trees are more likely found in the former European part of the area than in Medina, due to the higher building density and different layout. The spaces between buildings are wider in the European city, allowing trees not only to serve aesthetic functions but also to provide shade. In Al-Kherba open space, occasional potted plants and decorative plant beds can be spotted, although they are relatively uncommon, in addition to trees implanted into the primary school but yet visible from the open space.

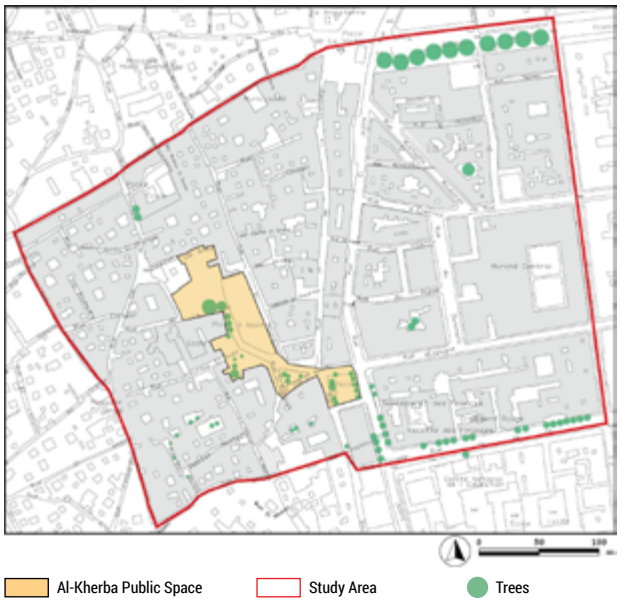

Figure 4.13: Mapping of trees in the study area
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The trees are most commonly found along Avenue de France and its extension, Avenue Bourguiba, the most tourist-oriented part of the district, as well as along Rue d'Angleterre (the southern limit of the study area) and the southern part of Rue Al Jazira, which borders directly with Al-Kherba and La Place de Castille. They form a clearly distinguished green infrastructure with the use of the same trees (ficus).

In this part of Tunis city, no green lungs are present, and green infrastructure is the main form for greening. Some micro green spaces can be considered both as micro green spaces and as components of green infrastructure.

4.4. Potential for Green Infrastructure Development

Strengthening Green Corridors through Al-Kherba

Al-Kherba is located at the intersection of two major urban pathways: one running through the medina and the other along the European city. These two urban fabrics present distinct green infrastructure models. The medina, with its narrow streets, has minimal green coverage, where small trees with limited ground footprints are used due to spatial constraints. In contrast, the European city is characterized by its tree-lined avenues, particularly dense ficus trees along major roads like Bourguiba Avenue, which provide shade and attract migratory birds, contributing to urban biodiversity.



Figure 4.14: Trees planted in the schoolyard and visible from the open space of Al-Kherba
© Authors, 2024



France Avenue



Rue Al Jazira



Medina street

Figure 4.15: Urban green infrastructure along the study area
© Authors, 2024

Despite its strategic location, Al-Kherba remains an empty, underutilized space, missing the opportunity to act as a green connector between these two models. While green infrastructure in both the medina and the European city helps reduce urban heat, Al-Kherba lacks vegetation, leaving it exposed to high temperatures. Additionally, both areas have limited permeable surfaces, restricting water infiltration and biodiversity. Transforming Al-Kherba into a vegetative link could enhance ecological continuity, mitigate heat, and improve urban comfort in this key junction of the city.

Al-Kherba as a Potential Urban Lung

As a vacant area (the central zone covering 2500 m²) within a dense urban fabric, Al-Kherba open space could function as an urban lung. However, it fails to fulfill this role effectively. The immediate vicinity of Al-Kherba lacks spaces capable of serving this function. The site remains a highly exposed, asphalt-dominated area with adverse heat conditions during summer. Al-Kherba is highly mineralized due to its initial design as a taxi station, which was later relocated.

Apart from Castille Square, which includes some vegetated soil elements, and the Green Triangle, most of the site is dominated by asphalt. Currently, the vegetation is fragmented, with scattered plantings in Castille Square, the Green Triangle, and pots, lacking coherence. The northern half of the site has no vegetation at all. The scarcity of plants, combined with household waste deposits and the heavily congested El Jazira Street, contributes to elevated air pollution levels. Increasing permeable soils and biodiversity enhancement are priorities for the area.

The visual quality of Al-Kherba's urban landscape is poor, with uncoordinated and poorly maintained facades, as well as vendor stalls disrupting the space. While Al-Kherba is walkable and benefits from minimal vehicle presence, it is not accessible for people with reduced mobility. Furthermore, its walkability is vulnerable, as street vendors can occupy pedestrian spaces at any moment. Al-Kherba serves mainly as a transit space, with few exceptions, such as the café and Place de Castille visitors.

Al-Kherba is also used as an event space, essentially during festivals (Dream City performed by Art Rue, and the Mdaq Al Halfa festival by Theatre el Hamra).



Figure 4.16: Plantations in the Medina near Al-Kherba open space
© Authors, 2024



Figure 4.17: Festivals banner in Place de Castille
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Towards a Broader Green Network

Al-Kherba has the potential to serve as a local green space as well as to act as a strategic node within a broader green and public spaces network in central Tunis. The nearby Castille Square, the Green Triangle, and the green corridors along Avenue de France and Avenue Bourguiba present key integration opportunities.

Establishing green pedestrian corridors that link Al-Kherba with these neighboring spaces could improve walkability, foster ecological connectivity, and offer cooling effects across the district. Besides, introducing pocket parks along the way, especially at critical intersections, could further enhance the network itself, thus creating stepping-stone habitats for biodiversity and inviting, shaded, comfortable urban pathways for residents and visitors.

In the long run, this integrated approach shall help in transforming currently fragmented green initiatives into a cohesive and resilient green infrastructure, which in turn strengthens both the social vibrancy and the environmental quality of the area.

Opportunities for Micro-greening Interventions

In addition to areas within Al-Kherba currently used as basic micro green spaces (e.g., Place de Castille, the "Green Triangle," and potted plants outside the café), several locations, both within and around Al-Kherba, could also be converted into micro green spaces, as there are opportunities to provide more shade and vegetation, which would help mitigate the heat, contribute to urban soil permeability, and enhance biodiversity. Addressing the predominance of mineralized spaces in the medina, Al-Kherba, and narrow streets of the European city makes increasing vegetation a critical issue. The complexity of the medina's street network offers opportunities for shaping specific places, whereas the orthogonal street layout of the European city makes such creations more challenging.

15 locations are identified in this work; some are significantly appropriated by the community, especially emblematic squares such as Nahj El Bousta.

4.5. Site-Specific Analysis: Needs and Opportunities for Development

As demonstrated in the analysis, lack of greenery is very noticeable, with residents barely maintaining the existing trees. Many pedestrian streets are not being used effectively and should be managed better. Adding more pedestrian streets on both sides of these would promote continuous pedestrian circulation. Al-Kherba is a heavily polluted area, with a significant amount of garbage found on the streets, leading to a massive garbage heap at the end of the site. Finding a solution for this issue is essential.

Shops are spread everywhere, most of them in poor condition. The largest shops are constructed from steel, which contributes to a very hot interior. In the triangular plaza, two shops occupy the edges of what should be a public green space instead of relocating elsewhere. People are using this area for motorcycle parking under trees for shade.

Figure 4.19 provides a general analysis of the situation in Al-Kherba, highlighting the three potential zones of intervention.

Following a comprehensive analysis of the entire Al-Kherba site, the students proceeded to examine its distinct components individually, with an overall objective to improve the attractiveness, greening and inclusivity of the site. The site was segmented into specific zones of analysis, enabling a more focused and detailed evaluation. This methodological approach aimed to generate tailored recommendations for future interventions, ensuring that proposed solutions address the unique characteristics and needs of each zone within the broader context of the site.



Figure 4.18: Nahj El Bousta
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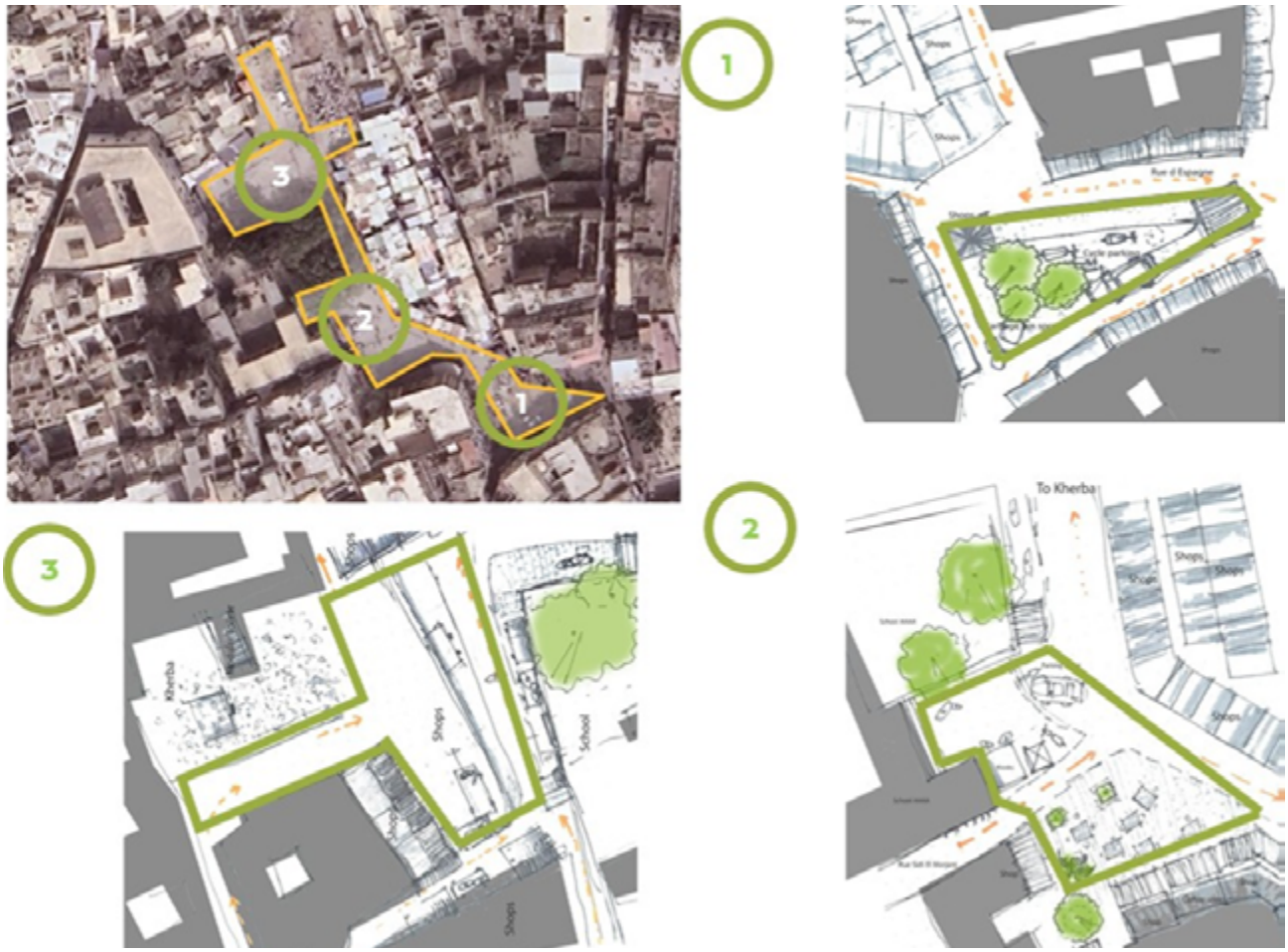

Figure 4.19: Potential zones of interventions
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As shown in the figure below, it is important to link and strategize interventions to optimize the spatial and social functionality of the site. The mobility axes are linking the three potential sites. Most of the visitors will move from one site to the other.



Figure 4.20: Strategic interventions enhancing spatial and social functionality
© Tunis workshop, 2024

In addition to the identified east-west and internal axialities linking the intervention sites and aligning with the market corridor, it is also important to explore broader spatial connectivity. One key opportunity lies in strengthening the northern connection towards key landmarks in the city, i.e., Avenue Habib Bourguiba and Place de la Victoire.

The northern axis, which is now underutilized, could serve as an important link between Al-Kherba and the symbolic and functional heart of Tunis. By narrating and enhancing this direction via urban design strategies, i.e., finding ways to create green, pedestrian-friendly corridors, Al-Kherba's role could be elevated within the spatial hierarchy of the city. Hence, transforming it from a marginal zone into a pivotal urban connection that links the medina, civic destinations, and the commercial routes.

Main School Entrance and Coffee Shop Area

The school entrance, with high footfall from kids and parents, could be transformed into a fun space, while the parking spot requires better organization, and the coffee area would benefit from more lighting and shade from larger-canopy trees.







Figure 4.21: Main school entrance
© Authors, 2024





Figure 4.22: Underutilized vacant land at the back school entrance
© Authors, 2024

Rear Entrance and Dumping Site Area

Despite the foul smell around the site, it holds strong potential as a social gathering space for workers, visitors and inhabitants, with wall murals and plants as a soft barrier to enhance its appeal.





Figure 4.23: Space overlooking the dump-site
© Authors, 2024

Triangular Green Node and Connecting Spaces

The space, with trees that have potential for improvement, is marred by random bike and car parking, garbage dumping, and poorly located shops, yet it shows promise as a resting point during hot summers.







Figure 4.24: Green triangular connecting node
© Authors, 2024

Redeveloping Underutilized Spaces

The corners and areas of Al-Kherba are often misidentified because people use them according to different needs, without providing a clear definition of the site itself or any of the surrounding areas.

Pedestrian streets are necessary to create a buffer between the plot next to the dumping ground and to better define the mobility streets. This buffer zone has the potential to serve as both a parking area and a park, adding much-needed greenery to the environment. Regarding the shops, the various canopies create an unappealing visual due to the cables used to hang items for sale.



Figure 4.25: Example of identified uses of public space
© Authors, 2024



Figure 4.26: Fragmented urban streetscape in Al-Kherba, marked by informal structures, irregular signage, and overlapping pedestrian and vehicular flows
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This area should be maintained as a public space that attracts visitors from both the north and the southeast of Al-Kherba. It requires more shading elements and trees. A pedestrian street should be established all around to create a "café-trottoir" area. Additionally, it is recommended to consider the building itself, as it could serve as a landmark by renovating it or adding features that distinguish it from its surroundings.

The core concept around which the proposal was developed is that of El Halfa (Esparto). On one hand, this concept evokes the former name of the site before its transformation into Al-Kherba, thereby reinforcing its historical and traditional significance. On the other hand, it symbolizes the social bonds represented by the knots formed when the plant's fibers are woven into traditional objects. These knots also evoke the image of the carpet, an object that is both deeply rooted in tradition and associated with social gatherings.

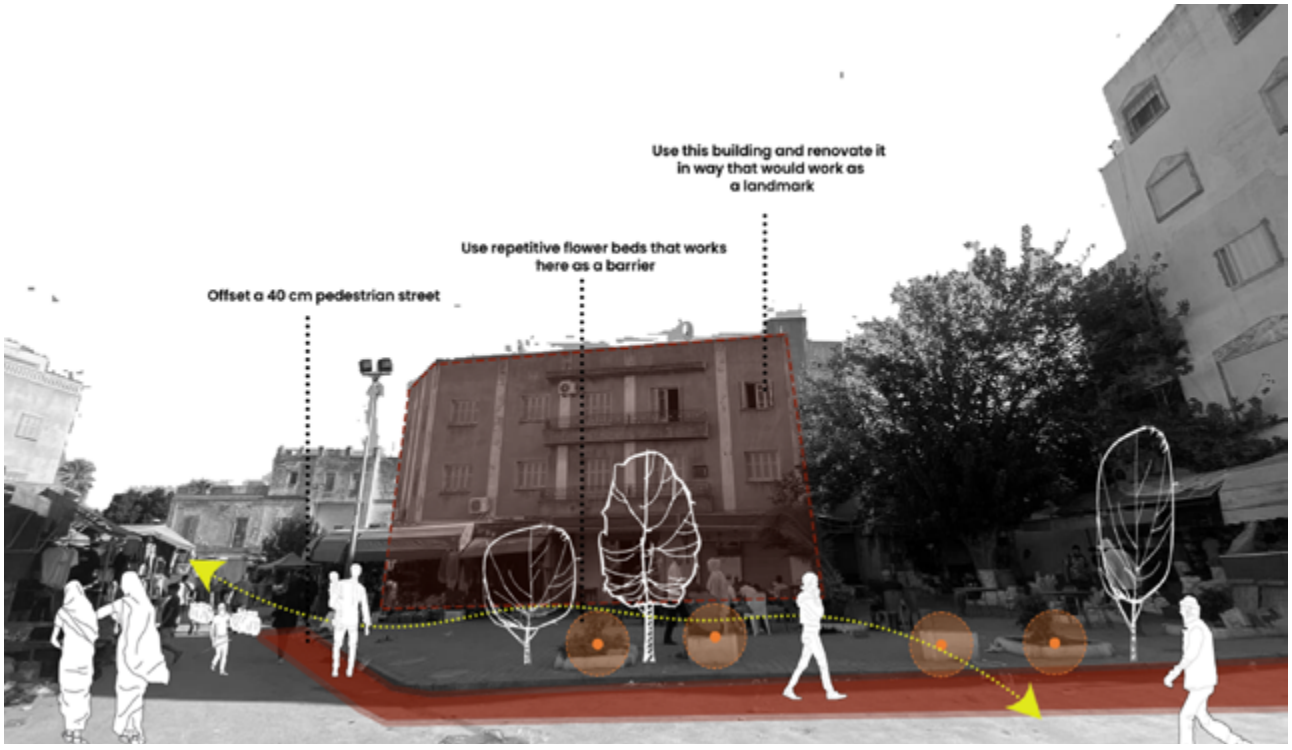

Figure 4.27: A vision for a pedestrian-friendly Al-Kherba
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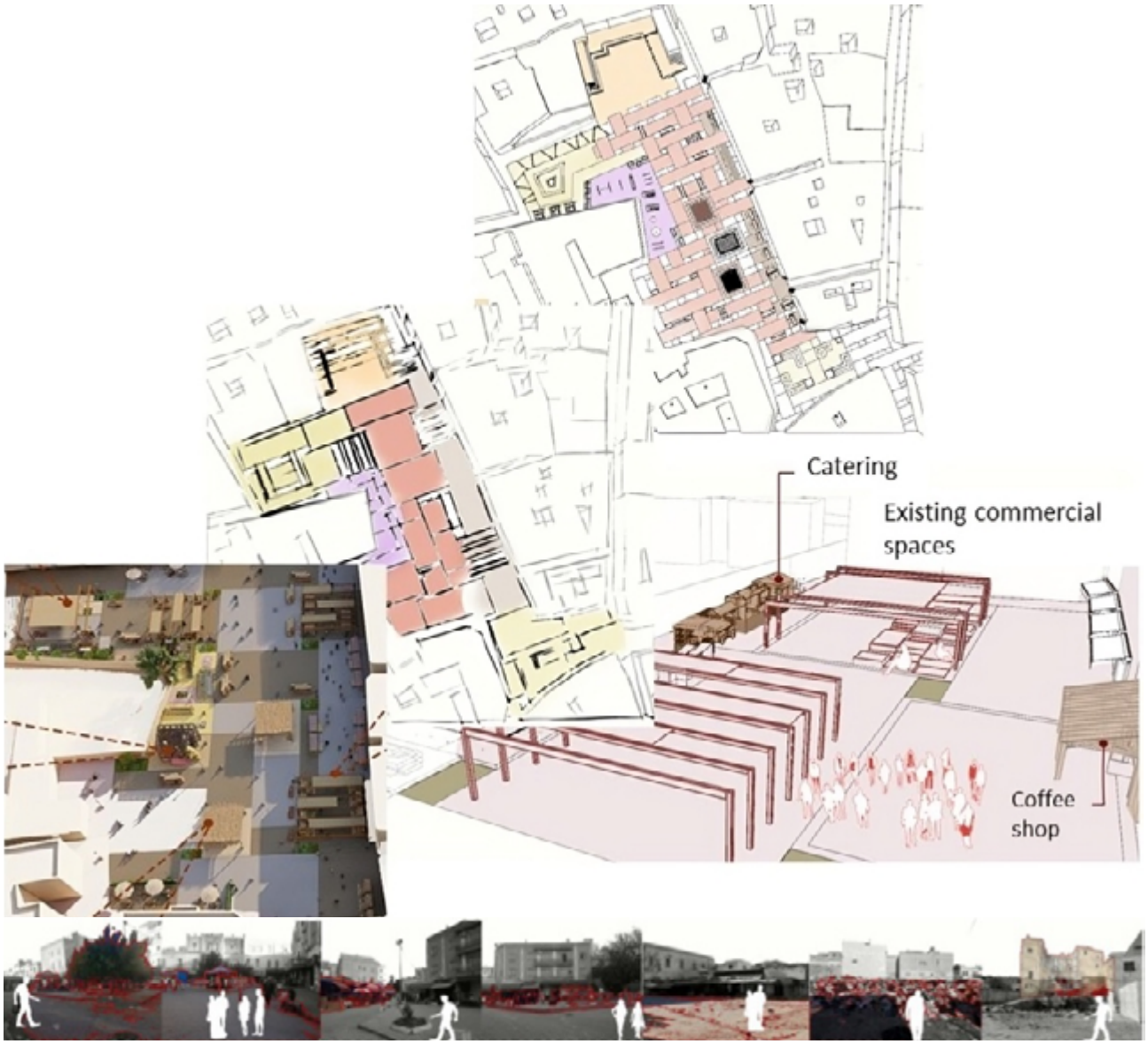

Figure 4.28: Proposal prepared by ISTEUB students
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This design is intended to allow for natural air circulation and sunlight exposure, to foster social interaction among users, and to make both passing through and staying on the site a pleasant experience. Planting is planned to increase greenery, including in-ground vegetation as well as designated areas for future potted plants.

4.6. Additional Micro-Interventions Sites

As outlined in the methodology, in addition to the proposed redevelopment of Al-Kherba open space, around fifteen tactical or small-scale interventions are planned for the streets and spaces adjacent to Al-Kherba. This map delineates areas identified as having potential for targeted interventions, derived from observations made during multiple site visits. The identified potentials stem from unique spatial characteristics and "moments" that offer opportunities for development or enhancement.

The primary opportunities include:

1. Empty Spaces: Underutilized areas that could be activated to serve the community.
2. Overused Spaces: Overfilled or misused zones that might benefit from reconfiguration or "emptying out."
3. Latent Potential: Spaces where foundational elements for improvement exist but require further intervention to reach their full potential.

Some of the potential intervention points are located very close to Al-Kherba place::

- Small, unpaved plots with the capacity to be developed into usable spaces for the community.
- A main waste collection site, presenting opportunities for improved waste management and urban hygiene.

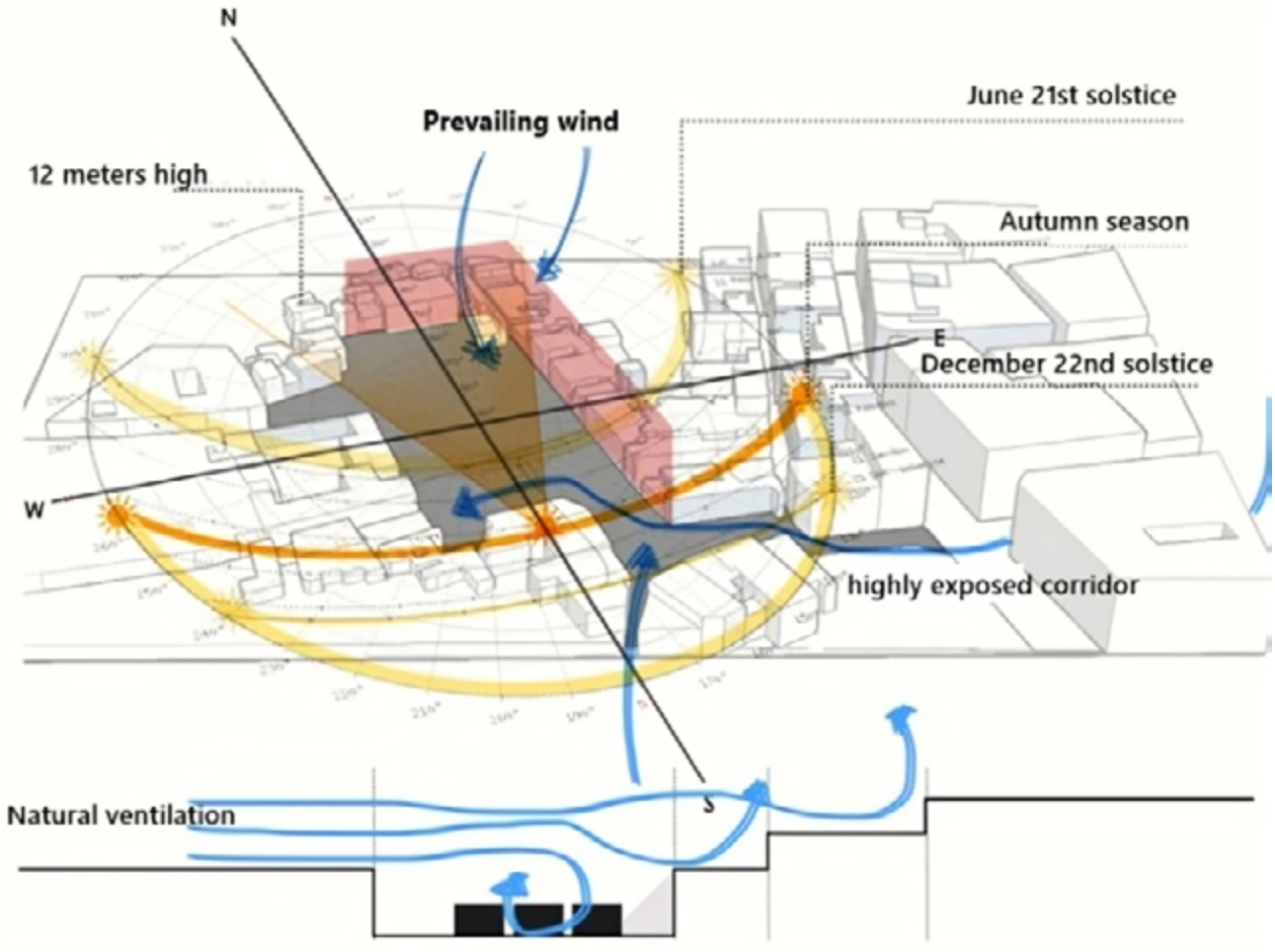

Figure 4.29: Air circulation and exposure to sun in the proposed design
© ISTEUB students, 2024



Figure 4.30: Additional sites for limited interventions
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- A local school, which could be better integrated into the surrounding urban fabric.
- Various smaller spaces and spatial arrangements that, with modest interventions, could enhance usability and accessibility for local users.

The identified places are in the surrounding zones, in both the medina and european quarter. These locations were re-evaluated to capture their current use and their potential. Preliminary development proposals were defined and discussed with residents and visitors to ensure a high level of acceptance of the proposals and commitment to their future management and maintenance. Three examples are presented here: Sidi Ameur Place, Sidi Ameur Street, and Nahj Al Bousta.



Figure 4.31: Sidi Ameur Square
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Sidi Ameur Square, located just a few meters from Al-Kherba Open Space, stands out for its openness, giving it the status of a small square. It is bordered by the Qashla (an Ottoman barracks) with its imposing façade, a mosque, and formal shops primarily focused on wholesale clothing sales.

Despite being a pleasant passageway, no specific activities take place there. It fails to function as a central square and remains merely an urban void, vacant and underutilized, despite its location in a dense and historic area.

In Sidi Ameur Square, the idea is to transform the urban void, which lacks meaning, into a landmark, a place to be desired, a place where one can stop, and where activities can take place. Planting a large tree in the middle is not only intended to provide more greenery and ensure shade and coolness but also to create an urban landmark, a visual focal point that structures the space.

Potential for intervention in a narrow, poorly lit street providing access to Al-Kherba: For the section of Sidi Ameur Street to be developed, it is a passageway with few existing activities, which has encouraged the proposal of a design that promotes pedestrian stops (public benches) and social interactions in a newly green environment. The aim is to create a landmark, transforming the passageway into a stopping point, an urban marker that, through its design, helps define a space, a place to pause and meet.

Nahj Al Bousta has a different configuration. The space is currently used as a parking lot and a dumping ground for waste. This high-potential area has been neglected to the point that it has become a waste disposal site for street vendors, who leave behind the remains of their merchandise. The chosen approach is to revitalize the space by introducing greenery, organizing parking functions, and creating a multifunctional area in the center that can be activated while utilizing the walls for street art expressions.



Figure 4.32: Open space (Sidi Ameur mosque square) near Al-Kherba, potential and needs
© Isteub students, 2025



Figure 4.33: Potential for Sidi Ameur Street combining plantations and urban seats
© Isteub students, 2025



Figure 4.34: Potential for Nahj Al Bousta place, more plantation in a cleaner place
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4.7. Governance, Institutional Frameworks and Stakeholders Mapping in Al-Kherba

The previous sections of this report examined the governance of public and green spaces in Tunisia at large, with particular attention to the city of Tunis and its central districts. This section shifts focus to the specific context of Al-Kherba, exploring governance modalities at the main intervention site and across the three selected examples of small-scale interventions.

Institutional Actors and Roles

In the previous chapter, a general analysis of the governance system of the site area was presented. To better understand how Al-Kherba public space is managed on a daily basis, it is important to examine the various stakeholders involved in the area's development and upkeep. This includes local residents, business owners, municipal authorities, and other entities that play a role in shaping the public spaces and overall environment of the district. Each of these stakeholders has unique interests, responsibilities, and challenges, which influence their contributions to urban planning, maintenance, and any proposed interventions. Identifying these groups and their roles provides a clearer picture of the decision-making processes and the interactions at play in Al-Kherba's public space.



Formal Vendors
selling edible and non-edible goods



Informal Vendors
mainly selling clothes



Central Market Vendors
vegetables, fish, etc.



Market Management
under municipal authority



Residents
tenants in the Medina and European Quarter



Municipality
includes lighting, vegetation, and waste units

Government and Infrastructure Bodies
INP, ONAS, STEG, SONEDE, MEH



NGOs/Civil Society
ASNA, ASM (Association of Medina Walls), Tacir LAB



Large Companies
banks, insurances, supermarkets, major restaurants, Grand Hôtel de France



Recette des Finances
financial administration



Artisans
sellers of handmade items (clay, Chechia, etc.)



Waste Collectors
ideally managed by a municipal unit



Tourists
visitors to the Medina and European Quarter



Taxi Drivers
Tunisian and Algerian drivers (Rue Al Jazira)



Non-human Presence
cats and vegetation



Municipal Police
agents ensuring local security



UNESCO
the Medina is a UNESCO World Heritage site (1979)



Primary School
nearby El Kheiria; includes children, teachers, parents



Visitors
locals such as café-goers, shoppers, cyclists, and motorcyclists

Figure 4.35: Various stakeholders involved in the area's development and upkeep

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Interviews conducted with the main stakeholders led to an array of identified problems; among them, pollution, safety, physical conditions and ownership seem to be the most influential. The municipality of Tunis insisted on the fact that some of the problems can not be resolved locally (for example, waste management; the trash site is used for all the medina residents).

Stakeholders with high interest but low power in public space projects should be actively involved in discussions and decisions. Empowering local communities ensures that their needs and perspectives shape the project, fostering greater ownership and inclusivity.

Governance Framework for Al-Kherba Greening Project

A more detailed analysis of the governance system in Al-Kherba area and its potential impacts on the developments to be produced reveals the following elements:

- A fundamentally municipal site, but one that is difficult to govern: Planning, programming, and development of public spaces are municipal responsibilities. Maintenance and irrigation of plants are also municipal responsibilities, as well as public lighting and rainwater management.



Figure 4.36: Discussions with local actors about the future of the site
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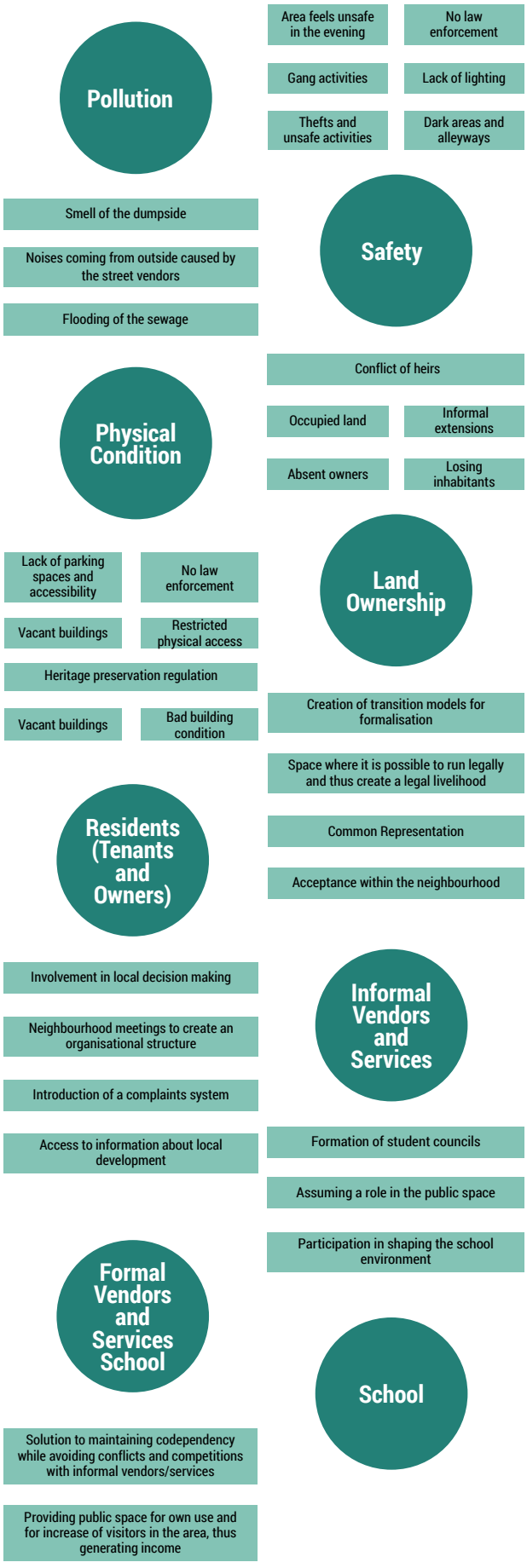

Figure 4.37: Identified problems

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Despite this fundamental role that theoretically makes the municipality the main actor, this situation is marred by the following gaps:

- The ownership of the land is unclear. Part of the site was privately owned before the bombing that created the open space, and the current situation of this property is not fully settled. The municipality is more of a manager of this space than an owner.
- The heritage status of the area requires the involvement of the National Heritage Institute and the Medina Preservation Association before any work can be undertaken.
- The lack of available resources on the ground for irrigation and ongoing maintenance, as well as the organization of space occupation.
- The municipality is also responsible for the temporary waste disposal site on the premises, which seems difficult to relocate.
- A strong presence of informal vendors in various forms (street vendors, informal stalls, informal kiosks, vendors who have been authorized to set up a kiosk, informal occupations of public spaces by formal shops, etc.). The municipality does not have its own municipal police force and is therefore heavily dependent on the police forces to manage public space. Furthermore, while the governance system analysis shows a great interest and potentially strong influence from these actors on the site, it should be noted that this interest mainly concerns preserving the site as a place for commerce and the possibility of using even more space for their activities.
- A differentiated status of occupants. The occupants of the housing and shops have different statuses (owners, managers, tenants, squatters, subtenants, etc.) with varying relationships to their places of work, creating vulnerable territorial ties. In addition to this characteristic, there is also the multiplicity of users and variability in their statuses (the visitors to the shops are mainly women, the vendors are mostly young men, schoolchildren are the main visible children, passers-by are of all ages, and the clientele of the café is mostly elderly people…). Apart from the schoolchildren and vendors, other users do not have daily connections to Al-Kherba space. The population with whom a joint and strategic reflection process about the future of this space is difficult to mobilize.
- The presence of institutions and organizations. The presence of the primary school and the two cultural structures (Art Rue and Al Hamra) is a key element supporting a governance system for the project involving local actors. Additionally, nearby banks and administrations around the open space can also be mentioned.

These actors can contribute, alongside the Tunis Municipality, to the governance process (as shown in Fig. 4.38 below).

Contribution Role / Actors	Design & Implementation Phase			Operational Phase		
	Diagnosis	Proposals/Co-Design	Implementation	Maintenance	Security	Animation
Primary School	●	●	●	●		●
Art Rue	●	●				●
Al Hamra	●	●				●
Banks			●			
Police					●	
Vendors	●	●		●	●	
Inhabitants	●	●	●	●		●
Passers-by					●	●

Figure 4.38: Matrix of potential contributions of key actors to the governance process
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Governance and Management of Additional Interventions

In the case of small-scale interventions, the organization of activities, patterns of land occupation, and the actors involved differ across sites. Nevertheless, they reveal a complex system of relationships among stakeholders and with the space itself, shaping both the physical configuration and the overall atmosphere of each location. The following section presents the specific conditions observed at three illustrative sites.

At Sidi Ameur Square, a recent development involves an investor working on establishing a hospitality facility. This investor is replacing the metal awnings of shops with wooden ones, painted blue and designed in a coherent style. This ongoing transformation presents an opportunity to be encouraged and integrated into the broader urban development process. The goal is to engage both the investor and shop owners in design decisions and involve them in watering and maintenance efforts. This initiative has already begun, with shopkeepers confirming their willingness to contribute.

For the section of Sidi Ameur Street to be developed, the primary stakeholders to engage are the building owners, whose support is essential for the success of the project. Since irrigation will be a challenge in this area, the selection of plants should prioritize species with low water requirements. Additionally, during hotter seasons, the nearby shops in Sidi Ameur Square, located just a few dozen meters away, could be mobilized to support watering efforts if needed.

At Nahj Al Bousta, an informal caretaker is managing the parking area used by workers from this street and the surrounding zones. The planned reorganization of the parking area and upcoming construction work may face resistance from him, since the local association there[17] also faced resistance to implementing their own projects. This informal caretaker is also linked to a group of street vendors, essentially food vendors, from the Ayari tribe, contributing to the use of this space as a deposit for their goods (in closed shops), garbage (directly on the ground), and also as a makeshift sanitation facility. The caretaker is also linked to the police. Involving him in the project could ensure his positive engagement, leveraging his knowledge of local users and occupants. A café located on this street could also play a key role in the future maintenance of public spaces and watering of plants. Furthermore, the temporary occupation of certain parts of the space (for Ramadan or summer evening events) could be discussed with the municipality to enhance security, animation, and maintenance while securing the café's participation.

The majority of building occupants in this area are professionals and business offices, including TADDC, a media association committed to its neighborhood. TADDC has previously produced a social media series about the street's daily life and organized a local festival (Boubli project). Given its active engagement, TADDC remains a key stakeholder in the design, maintenance, and activation of the space. This understanding of the site's socio-spatial conditions led us to fundamentally revise the initial proposal and develop a new one that takes local constraints into account. This second proposal was more favorably received by the ATDDC.

Conclusion: Strengthening Governance in Public Space Future Management

In conclusion, the governance system is characterized by complexity and, at times, problematic relationships among the many involved actors. In order to establish good governance conditions for planning and managing future projects, three elements seem essential.

17 The Tunisian Association for the Development of Digital Culture (TADDC).

(i) The municipality should be placed at the heart of the process, given its legal responsibilities and resource capacity.

(ii) All institutional and ordinary actors should be engaged around the municipality to co-define governance models

(iii) Different approaches and methods should be adopted according to the specific profiles and interests of each actor group. These elements will foster more sustainable, inclusive, and context-sensitive management of public spaces.

4.8. General Guidelines and Considerations for Greening Strategies

Micro-greening initiatives offer a valuable opportunity to enhance urban spaces by introducing greenery in small-scale areas. However, their success largely depends on stakeholder engagement, thoughtful design, and sustainable maintenance. The following guidelines highlight key considerations to ensure effective and long-lasting micro-greening interventions.

- Stakeholder Engagement: Micro-greening is highly dependent on the involvement of local stakeholders, particularly the residents or business owners in front of whose homes or shops the intervention will take place. Their full support is crucial. The design and selection of plants should align with their preferences, as they will be responsible for maintaining the green space. It is also important to involve them in the planting process to foster a sense of ownership.
- Sustainable Maintenance: Access to water and basic knowledge or training in plant care are essential for long-term maintenance. Whenever possible, designs should minimize the need for continuous maintenance to ensure sustainability.
- Community-Based Approach: Assigning a group of people (vendors essentially, since few residents are permanently there) to care for a particular green space is preferable, as this ensures continuity even if one individual moves away or is unavailable for extended periods. However, clear role distribution is necessary to prevent misunderstandings or conflicts.
- Safety Considerations: The design should not create security hazards or obstruct pedestrian pathways. It should be structurally stable to prevent detachment or collapse and should incorporate measures to reduce the risk of vandalism.
- Integration with Existing Spatial and Social Practices: The intervention should not disrupt the current use of the site but rather enhance it. It must respect and improve existing spatial and social practices (example of the role assumed by Barbacha in cleaning the site) rather than interfere with them.
- Formalizing Commitments: Establishing agreements between involved individuals/groups/associations and the municipality can help formalize their engagement and ensure long-term responsibility.
- Monitoring and Adaptation: Periodic assessments of the micro-greening sites should be conducted to evaluate their effectiveness and identify any necessary adjustments. This could include addressing unforeseen challenges, improving maintenance strategies, or expanding successful interventions to other locations.

4.9. Conclusion and Lessons Learned

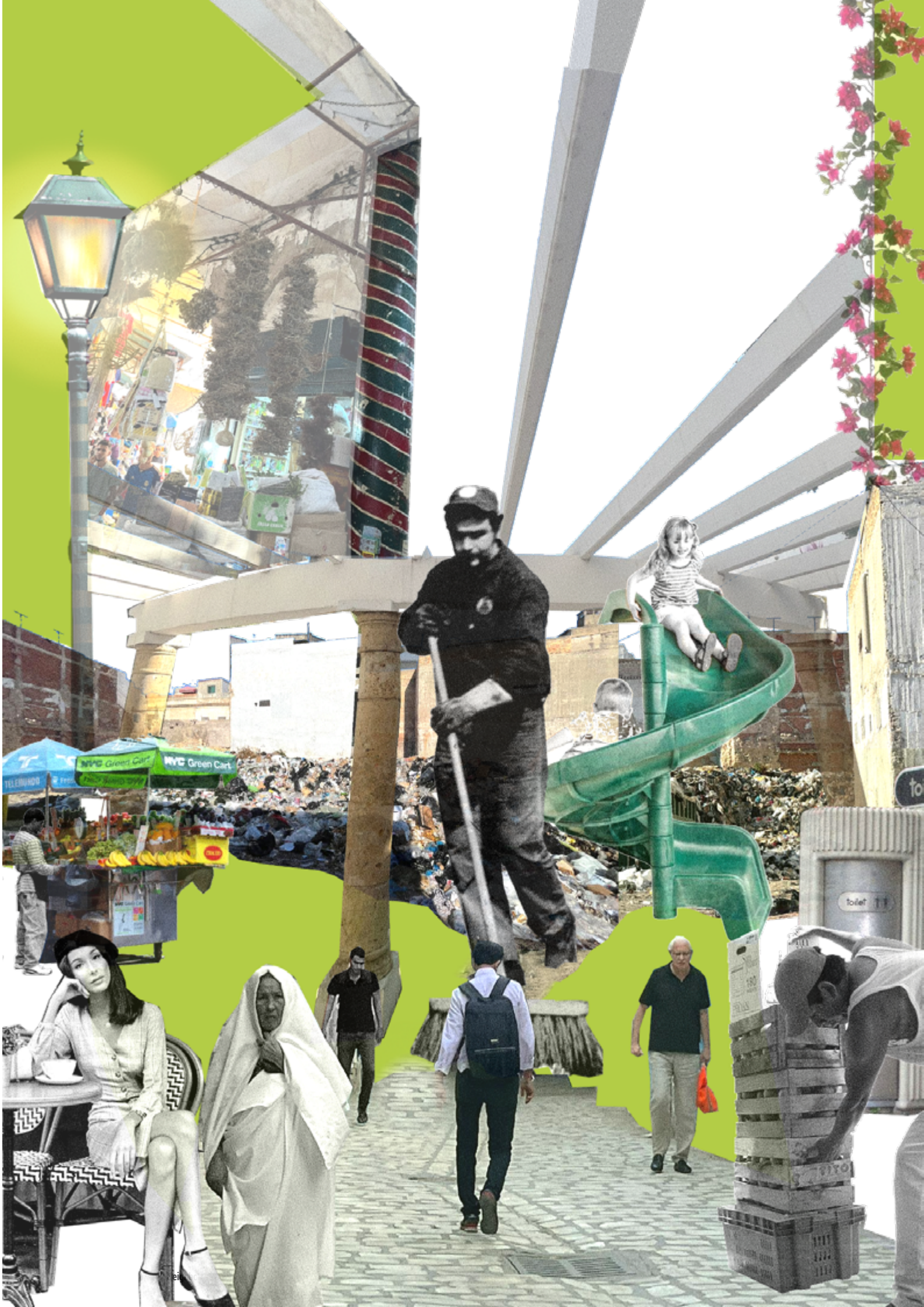
The analysis of Al-Kherba site has proven to be highly instructive. It revealed that the open space embodies a plural identity and that the diversity of its uses, from simple transit to permanent residence or employment, including commercial, food-related, and café activities, results in varying forms of appropriation. Certain elements of the space, such as the waste storage area and both formal and informal kiosks, constitute significant constraints. These factors must be fully considered in the design proposal. The example prepared by the students illustrates the site's development potential.

Furthermore, approximately fifteen sites have been identified in the vicinity of Al-Kherba open space as potential locations for intervention, with the aim of creating a more welcoming and greener public environment. Each site presents distinct challenges and therefore requires a tailored design approach. The three examples included in this report demonstrate this necessity.

The intervention to be undertaken in Al-Kherba must operate on three levels: contributing to the green infrastructure, transforming the empty space of Al-Kherba into a green lung, and multiplying micro green spaces in identified sites. This multi-scale approach must also address several imperatives: greening the area, resolving usage conflicts, and ensuring better conditions for a diverse range of users. The intervention must be sustainable, considering climate change and minimizing maintenance efforts. The strong and multifaceted identity of the place necessitates careful attention to the models implemented. To propose meaningful changes, each identified green space in Al-Kherba should be analyzed for its production, animation, and maintenance.

The development of a municipal public space is the main tool within the existing legal framework. The municipality remains the primary stakeholder since it owns the land, manages green spaces and oversees essential services like sanitation and lighting. The analysis of the governance system showed that several actors should be involved according to the topic (diagnosis, design, maintenance and animation), such as the police, formal and informal vendors, the school, the cultural associations and the residents and users. Cooperation is essential and should be tailored to the final design adopted for the development of the space.

5 Conclusion and Recommendations


NYC Green Cart
toilet

5.1. Summary of Key Findings

The analysis of Al-Kherba and its surroundings reveals that any intervention must address several interconnected issues across spatial, cultural, historical and governance dimensions.

Historically, Tunisian public spaces have evolved through Arabo-Muslim, colonial, post-independence, and post-2011 periods, resulting in a complex layering of influences. These historical legacies have led to challenges such as limited infrastructure, uneven distribution, and inherited socio-cultural practices affecting public space use.

Culturally, Tunisian public spaces serve as important hubs for social interaction, often blending public and private functions. Traditional norms still strongly shape public space use, particularly in terms of gender norms, while ongoing modernization is challenging these norms and raising issues of inclusivity and safety.

Additionally, urban development trends show contrasts; informal urbanization restricts the creation of new green spaces in popular neighborhoods, while formal neighborhoods suffer from rapid deterioration and informal encroachments of existing green areas. In this context, municipalities, despite their crucial role, face significant constraints in financial and human resources, limiting their capacity to develop, maintain, and regulate public spaces effectively.

Within this context, interventions in Al-Kherba must preserve its plural identity, rooted in rich socio-cultural significance and strong local heritage values. The area's vibrant local economy, driven by a mix of formal and informal activities, can be leveraged to support community-aligned improvements. However, the complex stakeholder network, including vendors, residents, associations, and public authorities (notably the police), demands sensitive engagement strategies to manage social tensions and institutional conflicts.

Further, environmental sustainability emerges as an urgent imperative. Public spaces are increasingly vulnerable to extreme heat and environmental degradation, reinforcing the need for climate-adaptive, resilient design interventions.

5.2. Next Steps for Future Actions

Building on the diagnostic insights and preliminary proposals developed by student groups under faculty supervision, the next phase involves the elaboration of a comprehensive development project by a multidisciplinary expert team in landscape architecture, urban planning, and urban governance. This initiative aims to transform Al-Kherba into a regenerative, inclusive, and resilient urban space that harmoniously integrates heritage preservation, economic vitality, social cohesion, and environmental sustainability. To this end, the following strategic directions are proposed:

- Develop a design proposal as a part of a comprehensive, integrated green infrastructure plan for Al-Kherba's open public space and its subzones. This positions it as a "Green Lung" within Tunis City, contributing to an emerging, wider ecological green infrastructure network that enhances the city's climate resilience and environmental connectivity.
- Implement Tactical Urbanism Interventions through approximately fifteen targeted actions across selected sites to enhance greenery, increase shading, and visibly improve urban conditions in the short term.
- Enhance accessibility, safety, and usability by upgrading public space amenities with essential infrastructure, including seating, lighting, and waste management systems. This empowers diverse user groups, especially children, older adults, individuals with disabilities, and families, to achieve a better quality of urban life.
- Promote inclusive participatory design principles, ensuring that new developments address the needs of all user groups, following the New Urban Agenda principle - Leave No One Behind - with particular attention to gender equity, child-friendliness, and universal accessibility.
- Strengthen participatory governance by establishing formal mechanisms that allow the municipality to lead while encouraging structured and sustained engagement from residents, vendors, associations, and other stakeholders in the planning, implementation, and management of public spaces.
- Mobilize resources for maintenance by combining municipal budgets with contributions from civil society organizations, NGOs, local vendors, and community members to support long-term stewardship of green spaces.
- Embed climate adaptation measures in all design and planning components, including permeable surfaces, drought-resistant vegetation, and shaded microclimates to mitigate urban heat and enhance ecological performance.
- Establish a monitoring and evaluation framework with clear indicators and participatory feedback mechanisms to track progress, measure impact, and adapt strategies in response to evolving community needs and environmental challenges.

5.3. Spatial Allocation of Future Actions

Spatial Allocations

Based on the study's findings, Al-Kherba area, comprising four subzones (illustrated in Fig. 5.1), is identified as the principal site for intervention. This area is designated to serve as a pilot for testing integrated public space strategies. In parallel, the implementation of 15 smaller-scale tactical interventions is proposed (illustrated in Fig. 5.2) across selected secondary locations throughout the city, aimed at advancing broader goals of spatial equity and urban greening.



Figure 5.1: The 4 sub-zone locations within Al-Kherba area
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Recommendations for Al-Kherba Public Space Design

The design of the main public space of Al-Kherba and the 15 tactical interventions should be coordinated in a way that fulfills the following design recommendations:

- Reconnect the medina with its historical landscape context by reintroducing ecological elements (e.g., water features, greenery, etc.) that once surrounded it, drawing inspiration from the former lakes, wadis, and market gardens.
- Reintegrate greenery into public space, addressing the current lack of vegetation and building on the medina's tradition of private gardens (e.g., patios) to inspire a new public green culture.
- Design public spaces that are green, inclusive, and identity-rich, reinforcing the unique character of Al-Kherba while ensuring functionality and accessibility for diverse users.
- Ensure coherence between old and new urban forms by aligning spatial design with the medina's morphological logic and enhancing physical and visual continuity with the adjacent European city.
- Support existing diverse uses within public spaces, preserving informal economic, cultural, and social activities while enabling new multifunctional layers of use.
- Promote spatial symbiosis and conflict-free coexistence by balancing commercial, recreational, and social functions through flexible and adaptable spatial layouts.

5.4. Closing Statement

In reimagining Al-Kherba's public spaces, the goal is not only to address immediate urban, social, and environmental challenges but also to lay the foundation for a more inclusive, resilient, and vibrant urban future. By honoring the area's rich cultural heritage, supporting its local economy, fostering social cohesion, and embedding sustainability at the core of interventions, Al-Kherba can evolve into a thriving, resilient, and vibrant green hub for all users and residents. Through collaborative governance, adaptive planning, and strategic investment, Al-Kherba's transformation can serve as a replicable model for revitalizing public spaces across Tunis and beyond.



Figure 5.2: Locations of the proposed 15 smaller-scale tactical interventions
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APPENDICES

Annex 1

The Arab Urban Development Institute (AUDI) is a regional Arab non-governmental and non-profit organization with a focus on urban development issues. Its mandate is to support a network of 650+ cities affiliated with the Arab Towns Organization (ATO) through research, capacity development and networking activities in the fields of urban development and municipal affairs.

As part of its Urban Policy Research Program, AUDI launched an Urban Living Lab project on Participatory Greening of Neighborhoods in Arab Cities. The initiative aims to support greening efforts in neighborhoods by piloting and developing knowledge on greening solutions and participatory and contractual models. These pilots are implemented in three cities : Amman in Jordan, Port Said in Egypt, and Tunis in Tunisia. The Lab:

1. Promotes impactful greening solutions in neighborhoods.

2. Adapts some leading global practices to the local reality.

3. Enhances the efficiency of local administrations in their handling of greening projects in general and participatory neighborhood greening projects in particular.

To do so, the project implements a series of actions distributed across three work packages:

Work Package (1): The Neighborhood Green Lung: Transforms one of the small neglected or suboptimally used spaces into a green public space through a series of interventions. This green space will be later on managed, maintained and animated through the joint efforts of the municipality and the local community, including residents, local associations, and the private sector.

Work Package (2): Green Tactical Interventions: Work with residents and associations to utilize dozens of small, neglected spaces in neighborhoods by planting and maintaining them. These spaces may be planted or may take the form of an intensive greening campaign.

Work Package (3): Knowledge Dissemination: Prepare training materials and train municipal employees, in addition to engaging in a series of research activities and publications to consolidate knowledge on urban greening and participatory neighborhood processes in the Arab region.

The present report pertains to the project component related to the city of Tunis, where Al-Kherba area was chosen for the pilot interventions; an urban open space situated at the interface between the traditional urban fabric of the old Medina district and the European city district, in addition to several interventions in differenet connected nodes.




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