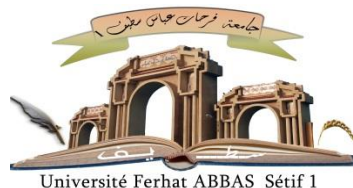


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THÈME

**Towards Urban Renewal: Densification challenges
in Pericentral Neighborhoods of Setif, Algeria.**

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Soutenue le 16/11/2024 devant le Jury:

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“O God, Increase me in knowledge”



**“Towards urban renewal:
Densification Challenges in Pericentral Neighborhoods of Setif, Algeria”**

Abstract: This thesis, titled "Towards Urban Renewal: Densification Challenges in Pericentral Neighborhoods of Setif, Algeria," explores the complexities of urban renewal through densification in Setif's pericentral areas. It addresses speculative transformations driven by housing shortages, land supply constraints, and gentrification, emphasizing the need for sustainable alternatives. By promoting optimal densities, the study seeks to reconcile the needs of territories and users with environmental considerations.

The research examines the effects of increasing built-up density, comparing the addition of new structures to building from scratch, and their impact on the built environment and social infrastructure. It advocates for comprehensive planning over individual interventions to harmonize land occupancy with housing typology proactively.

The thesis highlights the importance of anticipatory measures and decision-support tools, strengthening regulations through incentives or coercive means to counterbalance the harsh urban landscape. It focuses on improving urban quality through morphological regulation, striving for homogeneity and equity to meet the needs of a growing and diversifying population.

Additionally, the study explores the potential for progressive recycling of finite resources and infrastructures, addressing the challenges of sustainable urban renewal while maintaining resident communities amidst gentrification. It identifies unexplored potential in integrating densification operations with the urban morphology of existing fabrics to inform better design and planning practices.

Using a mixed-methods approach, including surveys, sustainability indicator questionnaires, semi-structured interviews, and focus groups, the findings reveal that profit-oriented land-use strategies drive the shift from single-family houses to multi-family buildings, leading to affordability issues and gentrification. This shift challenges socioeconomic cohesion and erodes neighborhood characteristics. The thesis offers a comprehensive overview of strategies for sustainable urban renewal in Setif's pericentral neighborhoods, emphasizing proactive, participatory, and inclusive planning methods aligned with Sustainable Development Goals (SDGs).

Keywords: Urban Renewal, pericentral neighborhoods, real estate speculation, densification, Setif.

عنوان الرسالة: "نحو تجديد حضري: تحديات التكتيف السكني في الأحياء المحيطة بمركز سطيف، الجزائر"

الملخص:

تستكشف هذه الرسالة، بعنوان "نحو تجديد حضري: تحديات التكتيف السكني في الأحياء المحيطة بمركز سطيف، الجزائر"، تعقيدات التجديد الحضري من خلال التكتيف السكني في المناطق المحيطة بمركز مدينة سطيف. تتناول التحولات المضاربية الناجمة عن نقص المساكن، قيود توريد العقارات، وضغوط الترحيل السكاني، مؤكدة على الحاجة إلى بدائل مستدامة. من خلال تعزيز الكثافات الأكثر ملاءمة، تسعى الدراسة إلى تقديم حلول عملية تُوفِّق بين احتياجات الأراضي والمستخدمين مع الاعتبارات البيئية.

تبحث الدراسة في تأثيرات التكتيف السكني، مع مقارنة السلوكيات التعويضية مثل إضافة هياكل جديدة بالهدم الكلي، وتأثيراتها على البيئة المبنية والبنية التحتية الاجتماعية. تدعو الدراسة إلى التنسيق في التخطيط حتى يصبح شاملاً بدلاً من التدخلات المعزولة والفردية، بهدف تحقيق التناغم بين شغل الأراضي ونمطية الإسكان بشكل استباقي.

تُبرز الرسالة أهمية التدابير الاستباقية وأدوات دعم اتخاذ القرار، وتعزيز اللوائح الحالية من خلال الحوافز أو التدابير القسرية لموازنة المشهد الحضري القاسي. تركز الدراسة على تحسين جودة البيئة الحضرية من خلال تنظيم الشكل العمراني، والسعي لتحقيق التجانس والعدالة لتلبية احتياجات السكان المتزايدة والمتنوعة.

علاوة على ذلك، تستكشف الدراسة الإمكانيات الكامنة في إعادة تدوير الموارد والبنى التحتية المحدودة، ومعالجة تحديات التجديد الحضري المستدام مع الحفاظ على البنية السكانية والتماسك. تحدد الدراسة أيضاً الإمكانيات غير المستغلة في دمج عمليات التكتيف بشكل أفضل مع الشكل العمراني للأنسجة الحضرية القائمة لتحسين ممارسات التصميم والتخطيط للتدخل في المجال الحضري.

باستخدام منهجية بحثية متعددة، تشمل الاستبيانات، واستبيانات مؤشرات الاستدامة، والمقابلات شبه المنظمة، والمجموعات البؤرية، تكشف النتائج أن الربحية في استخدام الأراضي هي التي تدفع التحول من المنازل العائلية الفردية إلى الشقق متعددة العائلات، مما يؤدي إلى تعظيم القدرة على تحمل التكاليف والترحيل السكاني. يشكل هذا التحول تحديات كبيرة للتماسك الاجتماعي الاقتصادي ويؤدي إلى تآكل الخصائص المعمارية والمادية للأحياء. تقدم الرسالة نظرة شاملة للاستراتيجيات والتحديات لتحقيق التجديد الحضري المستدام في الأحياء المحيطة بمركز سطيف، مع التأكيد على أهمية الأساليب الاستباقية والمشاركة الشاملة في التخطيط الحضري، وتقديم مجموعة أدوات التكتيف المتوافقة مع أهداف التنمية المستدامة.

الكلمات المفتاحية: التجديد الحضري، الأحياء المحيطة بمركز المدينة، المضاربية العقارية، التكتيف السكني، سطيف،

"Vers le renouvellement urbain : Défis de densification dans les quartiers péricentraux de Sétif, Algérie"

Résumé : Cette thèse, explore les complexités du renouvellement urbain à travers la densification dans les quartiers péricentraux de Sétif. Elle traite des transformations spéculatives motivées par des pénuries de logements, des contraintes foncières et des pressions de gentrification tout en soulignant la nécessité d'alternatives durables. En promouvant des densités optimales dans un schéma global, l'étude cherche à concilier les l'utilisateur et son territoire avec les considérations économiques, sociales et environnementales.

La recherche examine les effets de l'accroissement de la densité bâtie, en comparant l'incrémentation de nouvelles structures à la démolition/reconstruction, impactant et l'environnement bâti et l'infrastructure sociale. Elle plaide pour une planification globale plutôt qu'individuelle et disparate afin d'harmoniser l'occupation des foncier avec la typologie résidentielles de manière proactive.

La thèse souligne l'importance des mesures anticipatives et des outils d'aide à la décision, en renforçant les réglementations existantes par des mesures incitatives ou coercitives pour contrebalancer la discontinuité souvent observée du paysage urbain. Elle se concentre sur l'amélioration de la qualité urbaine à travers la régulation morphologique, en visant l'homogénéité et l'équité pour répondre aux besoins d'une population croissante et diversifiée.

En outre, l'étude explore le potentiel de recyclage progressif du foncier parallèlement aux infrastructures souvent saturées et détériorées, abordant les défis du renouvellement urbain durable tout en maintenant les communautés résidentes face à la gentrification. Des potentiels inexploités dans l'intégration des opérations de densification avec la morphologie urbaine des tissus existants sont soulignés pour améliorer les pratiques de conception et de planification.

Utilisant une approche méthodologique mixte, comprenant des enquêtes, des questionnaires d'indicateurs de durabilité, des entretiens semi-structurés et des groupes de discussion, les résultats révèlent que les stratégies d'occupation foncière prônent le profit et déclenchent par conséquent un retournement de situation ; des maisons unifamiliales aux immeubles multifamiliaux, entraînant une spéculation foncière, des problèmes d'accès a la propriété, et de gentrification. Ce changement pose des défis majeurs à la cohésion socio-économique et érode le caractère des quartiers.

La thèse offre une vue d'ensemble des stratégies pour parvenir à un renouvellement urbain durable dans les quartiers péricentraux de Sétif, en mettant l'accent sur des

méthodes de planification urbaine proactives, participatives et inclusives, alignées sur les Objectifs de Développement Durable (ODD).

Mots Clés : Renouveau urbain, quartiers péricentraux, spéculation immobilière, densification, Sétif.

Introduction Chapter

Research question, Hypothesis, and research objectives

Introduction

Urban areas worldwide are facing issues such as deterioration, inadequate infrastructure, shifting demands, and unsustainable growth. Urban renewal and regeneration have emerged as crucial strategies to address these challenges systematically. Urban renewal involves comprehensive interventions physical, environmental, social, and economic to rehabilitate, redevelop, or replace declining areas (Roberts et al., 2000).

In the case of the Maghrebi cities, both colonial and post-colonial periods have been characterized by ongoing modifications of their urban fabric. The history of these cities is essentially a sequence of destruction and reconstruction, regenerating the same locations multiple times while drawing inspiration from the past. Levi-Strauss, in recognizing this phenomenon across various cultures, emphasized the concept of city cycles (both short and long) rather than categorizing cities as "new" or "old." This was done to distinguish American and European urban structures (Levi-strauss, 1963).

Algerian cities have experienced significant transformations in response to societal and familial changes, rapid urbanization, and the shifting movement of populations and capital toward urban centers in recent decades. The rapid pace of these transformations lends cities an appearance of perpetual reconstruction, revealing new urban forms and raising questions about how best to organize these developments. As Schwach (1995) notes, urban development often operates on a different timeline than land ownership and management. He explains, "*Land and development play less than ever in the same temporal dimension, and the short cycles of development are increasingly decoupled from the long cycles of land.*" The underlying tensions and complexities are even more visible when rapid transformation and large scale (re)development clash with slow urban development characterized by established cycles of land ownership and management.

This observation is applicable to intermediate cities in Algeria, like the city of Setif where the intricate dynamics of densification particularly in pericentral neighborhoods raise multiple issues and challenges related to transformation, improvement, and redevelopment urban dynamics. A problematic that prompted the subject of this thesis, entitled "*Toward Urban Renewal: Densification Challenges in Pericentral Neighborhoods in Setif, Algeria*". to identify the factors and actors, potential implications, and possible strategies for neighborhood renewal.

1. Research question:

The urban fabric of Algerian cities, particularly Sétif, represents. As Riadh and Osman (2021) argue, these successive transformations have created a layered urban landscape facing unprecedented challenges. The traditional form of Algerian houses, dictated by climate, culture, socio-economic factors, and Islamic values, underwent significant disruption during the French colonial period. The introduction of grid-pattern layouts and European-style residential typologies established what Rahal and Boukhemis (2012) identify as a dual-city phenomenon, exacerbating socio-spatial segregation through the principle of ethnic homogenization characteristic of colonial urban planning.

Post-independence development, notably through ZHUN (Zones d'Habitat Urbain Nouvelles), transformed the urban landscape through large-scale housing projects. This collective housing model, as Kebir and Zeghiche (2022) observe, prioritized quantity over quality, neglecting crucial aspects such as social development and diversity. The transition to market economy and subsequent land market liberalization has intensified urban challenges, leading to what Teller (2001) describes as complex relationships between land use, housing patterns, and sustainable urban development. These transformations have accelerated the deterioration of existing urban fabrics while creating tensions between preservation efforts and profit-driven development.

Given these complex transformations and emerging challenges, this research addresses a fundamental question in urban development and preservation: **How can urban renewal frameworks and governance mechanisms in Sétif's pericentral neighborhoods be reformulated to achieve an optimal equilibrium between heritage preservation, social equity, and sustainable development within the context of market liberalization?**

This central question encompasses several critical dimensions that frame the investigation through specific sub-questions:

1. What is the relationship between current morphological regulations and sustainable urban renewal outcomes in Sétif's pericentral areas?
2. How do power dynamics and stakeholder interests influence urban renewal trajectories in historically layered neighborhoods?
3. What innovative governance mechanisms can effectively balance preservation imperatives with contemporary development needs?

Building on Leary and McCarthy's (2013) framework, the theoretical foundation of this research is situated at the convergence of three primary domains: urban morphology and transformation theories, sustainable urban renewal frameworks, and stakeholder theory in urban development. As Tan and Altrock (2016) emphasize, this theoretical triangulation is essential for fostering sustainability, resilience, and inclusion as priorities of urban development.

The methodology employs a mixed-methods approach incorporating three primary analytical streams. First, following Zheng et al.'s (2014) approach, a detailed morphological analysis will document and assess urban fabric transformations, spatial patterns, and regulatory impacts. Second, building on Mirzakhani et al.'s (2021) stakeholder framework, the research will examine power dynamics and decision-making processes through in-depth interviews and systematic mapping of influence relationships. Third, as suggested by Freeman et al. (2016), policy analysis will evaluate current regulatory frameworks, focusing on integrative and non-exclusionary strategies.

The research significance lies in addressing what Xiaoxi (2013) identifies as the critical need for context-specific strategies in urban renewal, particularly in cities with rich historical layers. Expected outcomes include:

1. A context-specific framework for sustainable urban renewal in historically layered cities
2. New theoretical insights into the relationship between market forces and urban heritage preservation
3. Practical guidelines for balancing competing stakeholder interests in urban renewal processes
4. Transferable methodologies for analyzing urban renewal dynamics in developing countries

While the research focuses specifically on Sétif's pericentral neighborhoods, its findings offer valuable insights for similar contexts facing comparable challenges. The study acknowledges limitations regarding the specific historical, cultural, and economic conditions that shape Sétif's urban development trajectory, recognizing that while certain findings may be generalizable, the unique characteristics of each urban context necessitate careful consideration.

The anticipated contributions extend beyond the immediate case of Sétif, offering valuable insights for policymakers, planners, and stakeholders involved in urban renewal processes. Through this comprehensive investigation, the research seeks to advance both theoretical understanding and practical applications in urban planning and development, particularly in cities grappling with the complex challenges of historical preservation, social equity, and market pressures in the contemporary era.

2. Epistemological position:

The multifaceted renewal process brings a multifaceted epistemological stance to the table, not only to explain the integrative approach of diverse theoretical perspectives but also to emphasize its importance to contribute to a holistic understanding and to effectively address the complex challenges of urban renewal in pericentral neighborhoods of Setif, Algeria, towards a socially equitable, economically viable and contextually appropriate.

Despite the extensive literature on urban renewal, several research gaps persist. The need for empirical studies on trade-offs, spillovers and impacts of incremental renewal and densification on built and social infrastructures in intermediate cities like Setif is rooted in the adoption of existing studies of singular epistemological perspectives.

While phenomenology provides valuable insights into the social implications of urban renewal and helps understanding the lived experiences and perceptions of those directly affected local inhabitants (Kebir & Zeghiche, 2022). Often stemming from collective housing, Algerian households show their preference to move to single house as the ultimate residential housing, however a recent migration dynamic from single family housing to multifamily housing and apartment buildings in subdivisions has been observed. Again, socio-economic transformations (Mouaziz-Bouchentouf, 2022) trigger this turnaround to owner-driven incremental renewal process with subsequent substitution in favor of new housing patterns, and further highlights the need for combining elements of constructivism, pragmatism, and participatory methods reflecting a hybrid epistemological approach. This offers a flexible and adaptive model for the study of adaptability and feasibility of large-scale “knock down rebuild” projects considering evolving family structures and lifestyle preferences. This would enable the comprehensive understanding of urban renewal to address complex urban challenges at neighborhoods scale (Pinnegar et al., 2020).

The following comprehensive table and flowchart aim at summarizing the diverse epistemologies relevant to our city and study cases, which contributes through their unique insights and methodologies to the central hybrid approach.

Epistemology	Description	Key Literature	Relevance to Study Cases
Constructivist	Focuses on the subjective and socially constructed nature of knowledge.	Liao & Liu (2021)	Understanding stakeholder dynamics and co-constructed urban renewal outcomes.
Critical	Examines power structures and socio-economic inequalities, often questioning established assumptions.	Freeman et al. (2020); Brenner et al. (2012)	Analyzing gentrification, displacement, and socio-political dynamics.
Phenomenological	Emphasizes the lived experiences and perceptions of individuals affected by urban changes.	Kebir & Zeghiche (2021)	Capturing the subjective experiences of residents undergoing displacement.
Normative	Focuses on ethical considerations and the pursuit of justice in urban planning.	Brenner et al. (2012)	Advocating for social equity and the "right to the city" in urban renewal.
Pragmatic	Prioritizes practical solutions and actionable knowledge to address urban planning challenges.	Egolum & Emoh (2020)	Implementing practical strategies for sustainable urban renewal.
Participatory	Values the knowledge and input of residents in shaping urban change through participatory methods.	Clark & Wise (2021)	Encouraging community involvement in planning and decision-making processes.
Hybrid	Integrates multiple epistemological perspectives to provide a comprehensive understanding of urban renewal.	Pinnegar et al. (2020); Combination of above sources	Combining quantitative and qualitative approaches, and interdisciplinary perspectives for a holistic view.

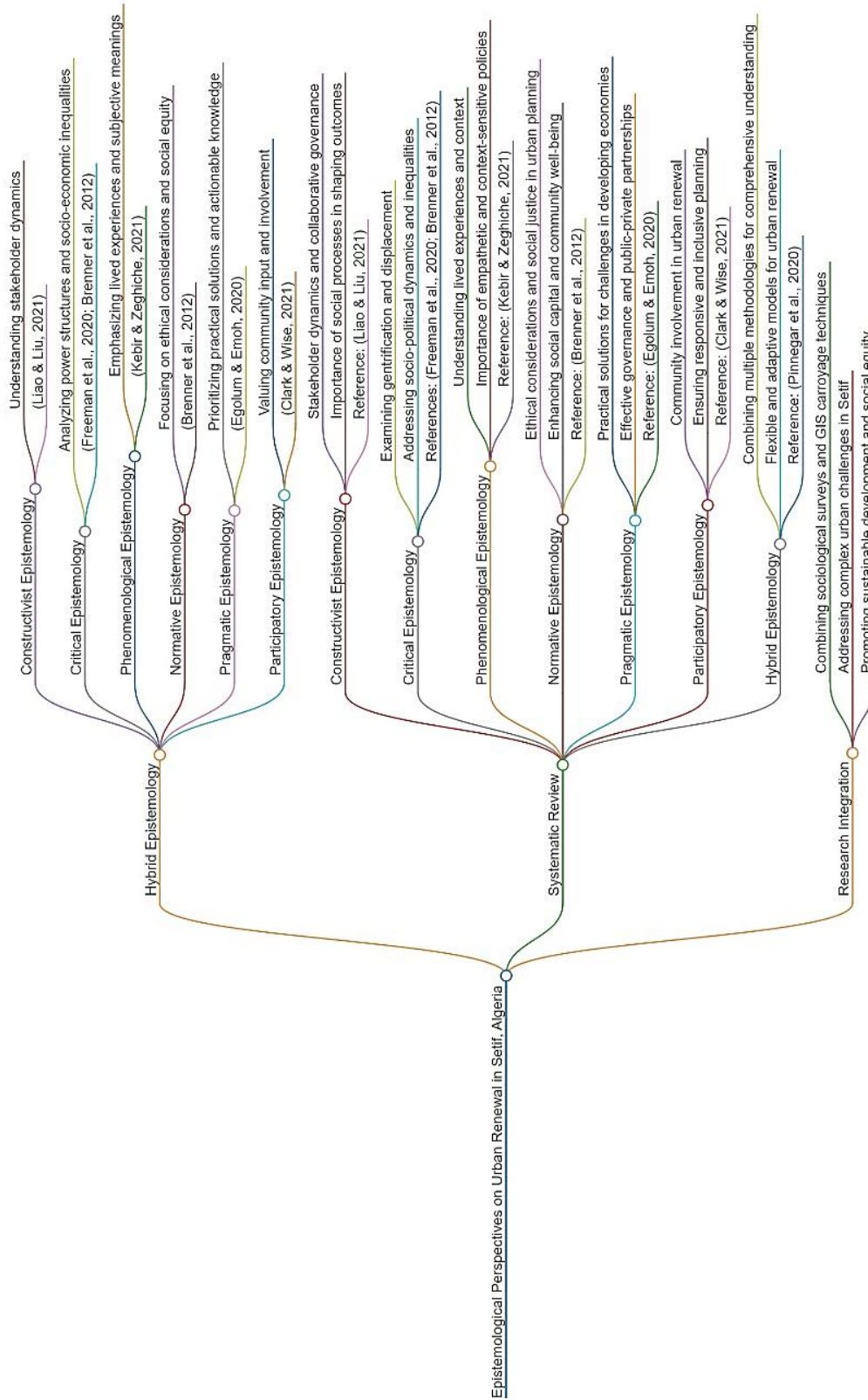


Figure 1: Flowchart of hybrid approach
Source: Author, 2024

3. Hypothesis

The city is more than a place; it holds historical significance and is a vibrant community for its residents. This research delves into the world of governance by examining the rapid changes and redevelopment that have reshaped the existing spatial and social structures. Focusing on the neighborhoods of Setif, the study aims to unravel the intricate relationship between urban densification, socio economic factors, environmental issues and community goals.

Central to this analysis is the critique of institutional practices that often react to crises with ineffective strategies that promote unsustainable urban development in response to limited land resources. Over time there has been a growing gap, between planning ideals and real-world implementation spanning from Algeria's independence era to times.

We propose two related hypotheses:

1. Building from scratch (demolition/rebuild) can increase housing density, intensifying redevelopment, and providing impetus to real estate speculation.
2. Speculative Neighborhood Renewal possibly serves as a catalyst for unaffordability of housing and triggers changes in social and built infrastructure.

By carefully balancing these factors and adopting a holistic approach, it is possible to develop context-specific strategies that promote compact, livable, and socially inclusive urban environments while preserving the unique character and cultural heritage of these neighborhoods.

4. Methodology

The proposed research employs a multifaceted approach to thoroughly investigate the research objectives. Drawing upon both quantitative and qualitative methodologies, this study will integrate diverse data collection and analysis techniques. The foundation of this work lies in an extensive review of on urban relevant scholarly literature, examining the complex dynamics of densification and urban renewal across developed and developing contexts. Particular attention will be paid to the unique characteristics of intermediate North African cities with colonial legacies.

Furthermore, the study will be supported by a wide-ranging analysis of urban planning documents and other pertinent instruments specific to the case study. This

comprehensive strategy is designed to provide a nuanced and detailed understanding of the spatial and sociocultural implications inherent in the processes of densification and urban renewal. By embracing a mixed-methods approach, we aim to capture the multifaceted nature of these phenomena, generating insights that can inform policy and practice in meaningful ways.

4.1 Quantitative Component:

Central to the quantitative analysis is the application of Geographic Information Systems (GIS), specifically the Grid system (Carroyage) technique. This approach provides a systematic framework for studying spatial patterns of densification and its impacts on land use, infrastructure, and environmental quality. By creating a grid of uniformly sized square units geolocated across the study area, the Grid system technique facilitates comprehensive and systematic spatial analysis. The grid's consistent size allows for uniform analysis and comparison, minimizing biases that may arise from irregularly shaped units. Moreover, this technique enables the seamless integration of remote sensing data and GIS technology, enhancing the reliability of geospatial analysis,

In this study, a square grid with a cell size of 5 meters is overlaid across the study area's municipal boundaries using ArcGIS software. This resolution strikes a balance between capturing detailed spatial patterns and ensuring computational feasibility. Within this grid framework, relevant geospatial datasets—including remotely sensed imagery, topographic maps, and ancillary data sources—are clipped and processed according to the predefined grid cells. This approach allows for the consistent extraction of variables such as land use/land cover characteristics, topographic features, and socio-economic indicators. Subsequent analyses include spatial statistical techniques, modeling, and visualization, which are conducted within the Grid framework. This ensures a comprehensive investigation of the research objectives and allows spatial autocorrelation and neighborhood analyses to reveal spatial relationships inherent in the phenomena being studied.

4.2 Qualitative Component:

To complement the quantitative data, qualitative methods will be employed, including surveys, interviews, and participatory observations. These methods will provide critical insights into community perspectives, stakeholder dynamics, and governance structures

affecting densification processes. Surveys and interviews will capture residents' lived experiences, aspirations, and challenges, while participatory observations will reveal the socio-cultural implications of densification and urban renewal. The qualitative data will offer a deeper understanding of how these processes affect pericentral neighborhoods, elucidating the socio-cultural dimensions that underpin demographic shifts and changes in architectural typology.

5. Consideration of Limitations:

Survey respondents were reticent about income, prices, furthermore, some misunderstandings about differentiation between density and densification could have been misleading them.

While the Grid technique offers several advantages, its regular grid structure may not always align perfectly with natural or anthropogenic boundaries, potentially introducing edge effects or spatial misalignments. Furthermore, the choice of cell size can affect the level of detail captured, requiring sensitivity analysis to ensure the chosen resolution is appropriate. Despite these limitations, the Grid technique remains a valuable tool, offering systematic and comprehensive spatial analysis, particularly when combined with GIS-based research.

In summary, the mixed-methods approach will enable a holistic exploration of the research questions, providing both numerical rigor and contextual richness to understand the interplay between densification, redevelopment, and the housing market in Algeria.

6. Research Context

Setif, a dynamic city in northeastern Algeria, has undergone rapid urbanization and demographic expansion in recent decades. As the city continues to grow, it faces the dual challenges of accommodating a rapidly increasing population while preserving its rich cultural heritage and environmental sustainability. The pericentral neighborhoods, strategically located on the fringes of the city center, play a crucial role in this evolving urban landscape. Despite their significance as historical and cultural hubs, these neighborhoods also contend with the pressures of densification driven by urban development imperatives.

The focus on pericentral neighborhoods is rooted in their strategic importance to Setif's urban fabric. They embody a unique blend of history, culture, and community life, making them focal points in any urban renewal initiative. However, these areas are grappling with significant challenges related to densification, including land use conflicts, infrastructural deficiencies, social inequalities, unaffordability, and environmental degradation. Addressing these challenges is essential for fostering sustainable urban development and improving the quality of life for the residents. By understanding the intricate dynamics at play, this research aims to provide insights that will inform more balanced and equitable urban policies, ultimately ensuring that the expansion of Setif does not compromise its cultural and environmental assets.

7. Research Objectives

This thesis seeks to achieve the following objectives:

1. Investigate the drivers and dynamics of densification in pericentral neighborhoods of Setif.
2. Assess the socio-economic, environmental, and cultural implications of densification in these areas.
3. Examine the extent to which KDR influences both the physical and market characteristics of urban areas.
4. Explore the causal relationships between SNR activities and the socio-economic transformations of neighborhoods.
5. Identify barriers and opportunities for sustainable urban renewal and densification management.
6. Propose contextually relevant strategies and governance to address densification challenges and promote sustainable development in pericentral neighborhoods.

8. Thesis Structure: This thesis is organized into eight main chapters:

Chapter 1: The City Between Urban Mutation and Renewal

This chapter provides a comprehensive overview of the urban transformation processes, while tracing the evolution from traditional to contemporary cities, it focuses on the dual challenges between urban sprawl and urban renewal in redefining the urban landscape. It emphasizes the role of renewal efforts in developed and developing world. It concludes by emphasizing the need for strategic renewal initiatives, and sets the foundational

context by exploring the historical and socio-economic forces that shape Setif's current urban dynamics.

Chapter 2: Urban Dilemma: To preserve or to transform?

This chapter examines the dichotomy between the destruction and preservation of old urban fabrics, starting from definitions and interpretations of urban fabric's significance over history, particularly through the lens of French colonial impacts on urban planning in the Algerian context, exploring the approaches toward their decline, ranging from soft to hard and controversial ones. The chapter exposes theories related to this substitution in urban fabrics and concludes by highlighting the design challenges in traditional contexts with modern needs considering the interplay between urban renewal and densification.

Chapter 3: Between Density and Densification

This chapter investigates the complex relationship between density and densification, examining the challenges and opportunities associated with these processes, assessing their implications for achieving sustainable urban development. Firstly, starting with definitions of density and densification as concepts related to old urban fabrics, with normative and descriptive distinct approaches. Secondly, the exploration of the drivers and impacts prioritizing "quality density" for delightful cities while reminding the complex psychological aspects of the "perceived density", and the crucial role of regulation for urban density management.

Chapter 4: Maturation Process of Urban Renewal

This chapter explores the maturation process of urban renewal, examining the key factors that influence the evolution and implementation of renewal strategies over time. Beginning with the necessary definition of urban renewal as a concept, transitioning from limited to broader coordinated projects. The exploration of the urban renewal background through context-specific and associated concepts, unfold its spontaneous rise before its institutionalization and legal frameworks by structured groups and different stakeholders. From regeneration to renovation and SRU law in France, from industrial wastelands, to social housing complexes, and run-down old neighborhoods this chapter confronts urban renewal practices in developing cities with developed contexts.

Chapter 5: Intersections of Urban Actors, Governance, and Policy in Algeria

This chapter analyzes the various actors, governance structures, and policies that shape urban development and renewal processes in Algeria, highlighting areas of convergence and divergence. Following, an introduction that describes the complexity of urban governance, the chapter highlights the multidimensional system with intricate State-society relationships marked with tensions. It further examines the shift from dirigiste to market economy and different pathways to legitimacy of demolition. It concludes by the Algerian context interplay of urban actors and policies to synthesize and introduce the specific context of the case study city of Setif.

The thesis concludes with a synthesis of the findings and a discussion of their implications for urban renewal and densification management in Setif's pericentral neighborhoods. The conclusion also outlines recommendations for future research and practice in this field.

Chapter 6: Urbanization Process of Setif as a case study

This chapter traces the process of urbanization in Setif evolving and expanding from a walled city to a suburban development. The contextualization first, to introduce the location and identification of the city, asserting its regional and metropolization ambitions over key stages and periods. The problematic of urban renewal dynamics brings Setif's historical analysis to the table, to further comprehend the evolution patterns, drivers, and paces across colonial and post-colonial periods. From byzantine ruins to intramural city, anticipating on future developments and land use. The changing land management leading to suburbanization through series of planned suburban development such as lower and higher suburban neighborhoods (case studies of chapter 8) and Constantine project as a catch-up initiative. This chapter concludes by a synthesis on this critical transition period.

Chapter 7: Post-independence urbanization

It starts with an examination of the urban "boom" from 1960 to 1989, setting the stage and introducing the general context and developments characterizing the independence period in 1962. The chapter highlights the impact of housing policies of the 1970s and the unconventional management of the rising housing crisis in the 1980s. It investigates the control of land use and urban development prompting speculation and

demolition/reconstruction during the last decade of the 20th century before a sharp increase in urbanization up to 2014. The chapter concludes by a reminder of incremental interventions and land use evolution highlighting the urban renewal and regeneration in the city of Setif, to introduce the following chapter.

Chapter 8: Case studies of Urban renewal dynamics in pericentral neighborhoods

This chapter explores the urban dynamics in pericentral neighborhoods, revealing real estate speculation, apartment-based redevelopment and gentrification outcomes published in a scientific paper. It introduces the phenomenon in its specific context, explains the methodology and data collection, analysis and discussion of the multifaceted impacts on environment, urban design, economic, social, and governance. The second case study with striking similarities confirming the phenomenon was also analyzed and discussed to synthesize with recommendations and a general conclusion.

9. Contribution to Scientific Research

This thesis advances the scientific understanding of urban renewal and densification challenges within Setif's pericentral neighborhoods, bridging the gap between theoretical frameworks and practical applications. By employing a mixed-methods approach and incorporating insights from urban planning, architecture, geography, and social sciences, this research provides a comprehensive, interdisciplinary perspective on the complexities of urban transformation.

The emphasis on pericentral neighborhoods, which function as cultural and historical hubs, adds a distinctive dimension to urban renewal and densification studies. This work explores the interplay between densification processes, socio-economic dynamics, environmental considerations, and community aspirations, offering valuable insights for policymakers, urban planners, and researchers.

Ultimately, this thesis contributes to the ongoing discourse on sustainable urban development by proposing contextually relevant strategies and interventions for managing densification challenges in Setif's pericentral neighborhoods. By providing actionable recommendations, this research aims to guide urban renewal efforts, fostering livable, inclusive, and culturally sensitive urban environments while promoting environmental sustainability and economic vitality.

Jane Jacobs:

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody. The life of a city is not built on concrete and steel alone, but on the human spirit that infuses it. Like a tapestry woven with threads of diverse experiences, a vibrant city is a living organism, constantly growing, changing, and adapting to the needs of its inhabitants." –
The Death and Life of Great American Cities

Chapter One (01)

The City Between Urban Mutation and Renewal

1. Introduction

Perpetual motion and change have always been integral to the evolution of cities; these dynamic entities full of life, full of variations are like an organic development. Its inherent vibrancy stems from the constant process of transformation and renewal. Despite changing pace, intensity and consistency, a city that ceases to evolve risks stagnation, potentially leading to decline (Wilson, 1987). Recalling the rebuilt city, referring to the layering or the reconstruction of one city on itself may therefore appear to be a new paradigm of urban planning. However, shaped by diverse factors that either facilitate or impede it, change in cities is everywhere while adapting and negotiating built environment and site strengths and weaknesses, reconstruction and revitalization are innated practices in urban fabrics even though urban renewal as a process has not always been prioritized, supported and fostered in all contexts.

Land recycling, rebuilding the city on the city, or simply urban renewal entails introducing mutation and substitution to continue the layering and development of the urban fabric. By so doing, growing emphasis and reflection on this concept arose in recent years, (re)formulation of urban and housing policies with the ambition of successfully leading urban renewal initiatives in diverse territories.

The objective of this chapter is to exploration of general characteristics of urban dynamics changing the city from urban mutation, urban sprawl to urban renewal, establishing clear and simple definitions to differentiate and to demonstrate the diversity of approaches and the validity of the concept. Discussing the peculiarities of western and developing

world across historical stages of city's development, this chapter will be structured around the following main sections:

- The city: between urban mutation and the need for renewal,
- The city as a concept: evolution from pre-industrial to contemporary city
- City of western world and developing-world city: context-specific issues and objectives.

2. The city in transition: navigating mutation and renewal

Cities exhibit unique characteristics, featuring different urban forms and architecture from, these differences arise from various factors including geographic location, historical development, architectural styles, urban planning decisions, and socio-economic dynamics (Hall, 1998). For instance, the city of Venice is known for its unique geographical location on a lagoon, while other cities like Rome "the eternal city" and Paris are recognized for their architectural masterpieces, fine arts, and historical backgrounds. Regardless of these distinct attributes, one universal characteristic binds cities all over the world is their dynamic and ever-changing essence. Indeed, cities appears to us as a living organism as they experience: birth, growth and evolution, they also change, they deteriorate and degrade, cities die and can even regenerate (Jacobs, 1961).

From nomadism to settlement, human civilization, shifted and have continued to grow, to develop and concentrate an increasing share of the population and economic activity. For example, after the devastating World War II, lots of European cities such as Warsaw and Berlin witnessed unprecedented rebuilding and revitalization dynamics, while other cities demonstrated remarkable resilience and adaptability.

Simultaneously, as the city was experiencing quantitative growth, it was also undergoing changes in its form and functions (Glaeser, 2012; L. Mumford, 1961). Political, economic and cultural influence are not the only measures of cities' dynamics, but also renewal and rejuvenation capacity, the ability to effectively organize and adapt the spatial layout to accommodate the evolving needs: population growth, economic, cultural, etc. development... Consequently, if we look respectively at cities like Los Angeles and Tokyo that have grown both through urban sprawl and through renewal of existing fabrics, either by outward expansion leading to extensive suburban development and/or successive layers of vertical development to accommodate their dense population and economic activities.

2.1 The Ever-Evolving city:

The connotation of the "Growth" leans to expansion, however urban growth can occur without increasing size and sprawling in all directions, pushing territorial boundaries. This can be possible when rationalizing land use, increasing density within existing fabrics at plot, block, and/or neighborhood scale. Philippe Panerai described this phenomenon as "**blocked growth**" (Merlin, 1998), since predetermined limits are assigned to it from the outset.

Historically, cities have demolished and rebuilt themselves ceaselessly. For instance, the ruins of the forum in Rome show that rebuilding was done atop the existing remains, sometimes repurposing partially the materials from pre-existing constructions. Similarly, medieval cities underwent reconstruction on the existing fortifications to maintain protection provided by strategic sites and remaining ramparts while adapting to the evolving socio-economic settings.

Urban areas are continually evolving through different forms of urban renewal intrinsically rooted in any established urban fabric. The varying pace, nature, and effects of these mutations are often generating resultant urban forms due to phenomena of superposition, stratification or substitution. However, when meeting adaptable urban environment and favorable economic climate, these mutations can be very rapid (Lefebvre, 1967). The downtown areas of American and Asian cities exemplify the rapid and intense renewal and revitalization. Chicago's Loop (Central Business District) has been subject to multiple renewal waves, at least three or four times, successively replacing houses, 5-storey buildings, early skyscrapers and then contemporary high-rises.

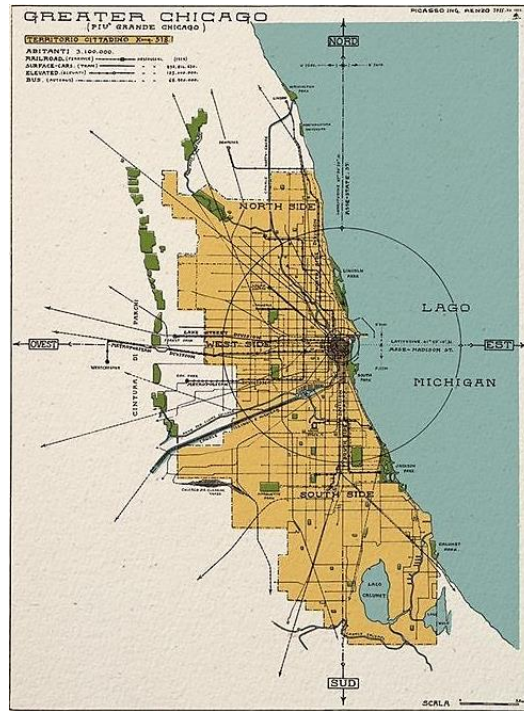


Figure 2: Downtown (LOOP) of Chicago by the lake Michigan

Source: <https://i.pinimg.com/564x/f4/e2/52/f4e252ad2b902668615215bd390c40d5.jpg>

Geography also plays a key role in the transformation of cities. Confined cities or urban entities with land scarcity generally tend to vertical development, prompting urban renewal for growing population demands. During war times for example, squeezing together inside the defensive walls and high population density was a common characteristic of fortified cities. In addition to climate conditions, historic centers in Islamic countries are known for the narrowness of the streets and the proximity of the houses.(Saïdouni, 2001)

Cities experiencing confinement, for geographic, strategic, or other reasons, face constraints and necessitate another development approach with intense renewal compared to open cities on favorable topography

The perpetual cycle of both individual and collective Reconstruction - transformation dynamic is therefore a central aspect of urban life, and continues to be the key drivers of mutation and renewal (Saïdouni, 2001).

2.2 The spreading city: A sprawling mutation

Until the 15th century, cities were likely to be always delineated by physical boundaries separating them from their surroundings. However, the influence of medieval cities for example extended beyond their boundaries. They asserted control over their extra-muros

territories (Chaline, 1990). This movement has expanded considerably during the second half of the 20th century. The city with its center and well-defined limits has given way to uncertain and shifting urban territories and new undefinable urban forms. Modern urbanization has drastically altered the collective image of the city, urban sprawl has pushed its boundaries back considerably, resulting in the introduction of new concepts such as: rurbanization, and peri-urbanization...

David Mangin speaks of "the franchised city" (Mangin, 2004) and explains why the city has sprawled so much over the past fifty years. The most immediate answer lies in the development of the automobile and road networks: "on the scale of agglomerations, this meshing has decisive consequences on the forms of urban growth.". The automobile has literally created new territories by breaking down the boundaries of the city (Piron, 2002). Given the scale of this urbanization, one wonders about the consequences of these mutations from a spatial, environmental, economic and social point of view.

3. Tracing Cityscape over time and settings:

3.1 The city of the Developed World

3.1.1 The pre-industrial city:

Referring to the era preceding the classical age, we would rather speak of pre-industrial traditional city to highlight the crucial role of industrial revolution in the evolution of city models that we will try to explain further in the following pages. This type of city was homogeneously organized in the form of a compact, with well-defined boundaries, typically consisting of a city center serving as a magnet or hub for population and activity and as a meeting place, worshiping place, surrounded by residential neighborhoods. (Saïdouni, 2001).

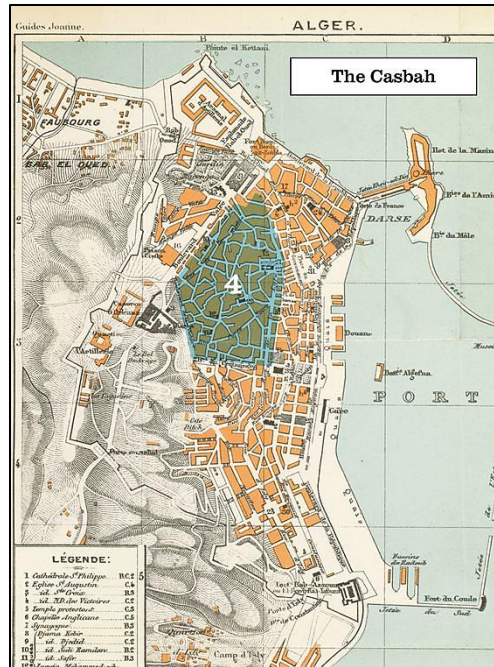


Figure 3: The Casbah of Algiers

Source: Engraving from Louis Piesse, *Algérie et Tunisie* (Paris, 1888), published by Hachette et Cie (Paris)

The strong hierarchy of narrow roads converging to squares have largely contributed to the unity of the city. The urban composition enjoys a character of continuity, clearly visible in the picturesque architectural styles, in the proportions between solids and voids and the use of local materials. This unity and continuity in design can also be a synonym to remarkable, diverse, and vibrant spaces and atmospheres when enriching its façades, colors, architectural details, and other elements. Such an intensity of sequences, events and experiences concentrated in the same space.

If we focus our examination on the logic of production of the so called “traditional” urban space which primarily consider the functional and cultural needs of their communities, contrasting with modern planning for example, they did not adhere to rigid plans but follows directives of customs and daily uses. For instance, cities like Florence, Sienna, Bruges, or Carcassonne continue to draw admiration for their resistance to transformative dynamics keeps these urban entities away to be admired by both experts and laypeople, who appreciate behind the aging facades, a local history, a very strong social cohesion and undisputed know-how.

3.1.2 The classical city:

The idea of reconsidering cities as work of art stems from the cultural and artistic movement of the glorious period called the quattro cento in Italy that spread marking the medieval urban landscape to be known as "Rinascimento" or Renaissance between the 15th and 19th centuries. Consequently, ex-nihilo cities were reshaped according to the revival of antiquity principles such as: Versailles and Richelieu in France, Saint Petersburg in Russia, Aranjuez in Spain. From functional, culturally-informed designs to urban fabrics featuring exceptional monuments and geometric order, the renaissance city witnessed a transition and refinement of urban space (Saïdouni, 2001).

This transition was followed by repetitive designs and the adoption of standardized models, with a clear distinction between art and local needs, far from context-specific urban planning, where aesthetic appeal and grandeur is prioritized. The city of Rome knew the construction of grandiose catholic building "St Peter's Basilica that exemplifies the visual splendor principles.

Questions and critics arose about whether cities are built to be visually admired or functionally viable and suitable for their inhabitants?

3.1.3 The industrial city:

Undoubtedly, a turning point in cities' countries colonization history and cities evolution narrative is the 19th century, and the industrial revolution. A follow up of the Renaissance movement of discoveries and technological advancements resulted in the invention of the steam engine, the advent of the railway, and industrial progress that collectively took the pre-industrial city to the next level, prompting radical transformations and surge of urbanization beyond the walls. Indeed, the technical revolution not only allowed new modes of massive production and manufacturing, but also highlighted rural to urban migration due to the need for a large workforce requiring the integration of surrounding lands, close to manufacturers for "labor housing" and mass housing.

Consequently, urban infrastructure improvement was imperative, new facilities emerged concurrently with innovative materials, such as the emblematic transformation and extensive railway of "the pool of London", factories and transit hubs for goods. Also the

Paris stations during “Haussmann” transformation, marked by iron and glass, significantly altering the urban landscape (Saïdouni, 2001).

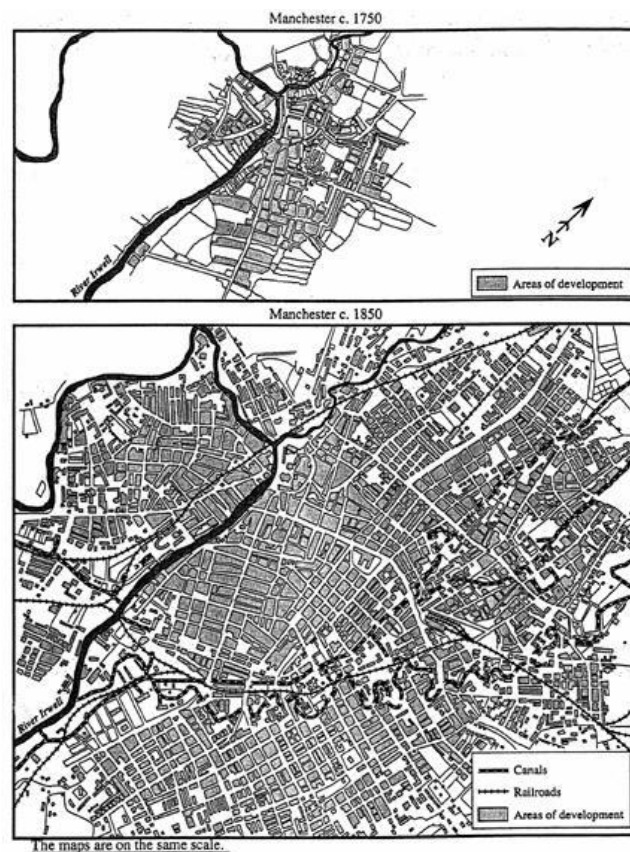


Figure 4: The growth of Industrial Manchester

Source: <https://developmentofmanchester.weebly.com/industrial-revolution.html>

On a social level:

- The transformations were just as radical as on the urban composition.
- The social cohesion in pre-industrialized city replaced by segregation between an industrial bourgeoisie residing in the most comfortable neighborhoods, and a working class, occupying workers' estates built.

The proliferation of ideas and the concentration of modernity within the industrial city were unfortunately accompanied by very negative aspects from various points of view (Saïdouni, 2001):

- **Dis-continuity and fragmentation of urban fabric:** These spatial extensions and upheavals mark the departure from the walled city.

- **Urbanization for industrial and commercial activities,**
- **New housing patterns:** Mass housing to accommodate the significant demographic revolution and rural exodus.
- **Working-class housing and factories** surrounding ancient pre-industrial "traditional" centers
- **Rapid and unlimited urban growth**

On land speculation level:

- Significant changes in land registry and ownership (Saïdouni, 2001)
- The pursuit of well-located land increased
- Transportation routes logic for development (Transit-oriented-development TOD)

On public Health level:

- Hygiene challenges and spread of epidemics
- Poor conditions in disadvantaged neighborhoods
- Developed motorized transportation revealed inadequate road system and traffic congestion
- Alarming density and crowding in cities like London and Paris

3.1.4 Early stages of post-industrial city

The downside of the industrial revolution was key to reactions and planning reconsiderations, yet the worrying deterioration of physical and social conditions raised concerns and revolted the working-class population. Philosophers, leaders, doctors, architects and industrialists had the same slogan 'improve the quality of life' (Saïdouni, 2001).

At urban fabrics level:

- Adaptation of the city to the new modes of transportation, production and consumption
- The remodeling and the widening of roads were of the first advocated solutions, such as in Rue Rivoli, then the reconstruction of Paris (between 1853 - 1870) by Haussmann (Kirkland, 2013), the development of Regent's Parc in London by John Nash, the work of Cerda in Barcelona....etc.

- The first health reforms and the beginnings of urban regulations in a likely modern form.
- The progressive and culturalist utopias playing opening and orienting urban thinking towards a modernist movement.

3.1.5 The modern city:

Major urban challenges were accumulated such as the population density, the demographic revolution, and the multifaceted housing crisis in the aftermath of industrial revolution transformations at urban level. Questions about innovative low-cost solutions, effective and rapid (re)construction processes were acute to build housing in large quantities. The model of prefabrication inspired by manufacturing process and inspired by industrialization enabled all kinds of residential estates and large housing estates sprang up on the outskirts of cities (Bullock, 2002). Further promoted by the principles of the Athens Charter and the famous 1933 CIAM (International Congress of Modern Architecture) text, a regulated and programmed city (E. P. Mumford, 2002) based on the zoning of the four functions: living, working, recreating and circulating officially gave birth to the modern city, declaring the excessive sprawl of cities, causing increasingly glaring discontinuities and ruptures with the pre-industrial or traditional city.

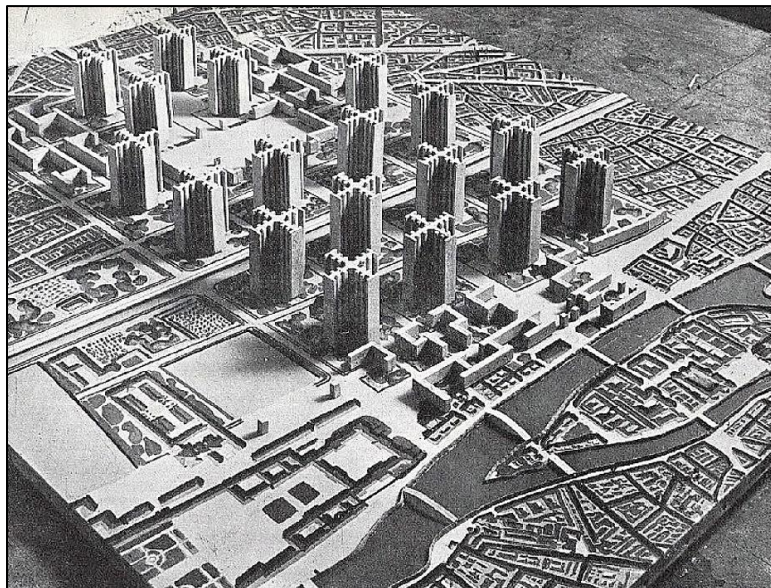


Figure 5: The Modern city planning

Source: <https://urbandesignlab.in/modernist-city-planning-ideals/>

Central and peri-central areas were gradually abandoned in favor of peripheral areas. The latter represent opportunities in terms of land for the location of activities requiring horizontal areas of extension, or simply for the dream of appropriating an individual house (Charmes, 2015). According to Mumford (2002), large housing estates, are the product of functionalist theories in total rupture with context-specific planning, exemplifying standardization, impoverishment of human contacts, loss of the notion of place and local characteristics of each entity (E. P. Mumford, 2002).

3.1.6 The contemporary city:

The cut-throat competition barely governed by market laws of a capitalist bubble; speculation is shaping cities of the developed world to a greater extent into metropolises.

At urban dynamics level:

- Historical fabrics absorbed by hyper centers in a vast periphery
- The limits of the cities become barely visible.
- Significant growth made formerly small agglomerations evolved from simple villages to urban centers

At technological level:

- The development of Information and Communication Technologies "ICT"
- Transcendence of limits pushing boundaries
- Distance-shortening and reduction of spatial constraints

At transportation and infrastructure level:

- From pedestrian to car cities
- Extensive deployment of transportation infrastructures
- Transit-Oriented-Development contributing to city sprawl.

3.2 The developing City:

The common denominator of most developing cities is colonialism, contributing to issues like urban sprawl, segregation, and the unequal distribution of services. Moreover, the stages of change and transformation undergone of the latter cities broadly mirror those

in the developed world, but there may be a time lag. Since the transfer of urban planning principles from colonial powers has had long-lasting effects.

Involving the colonized countries as experimental ground for new urban planning approaches following industrialization and the World Wars as influencing factors leaving significant, indelible and enduring impacts on their urban landscapes (Mabogunje, 1990) such as in cities like Algiers and Casablanca. The colonization background imposing foreign policies and regulations was a gamechanger in shaping such urban environments.

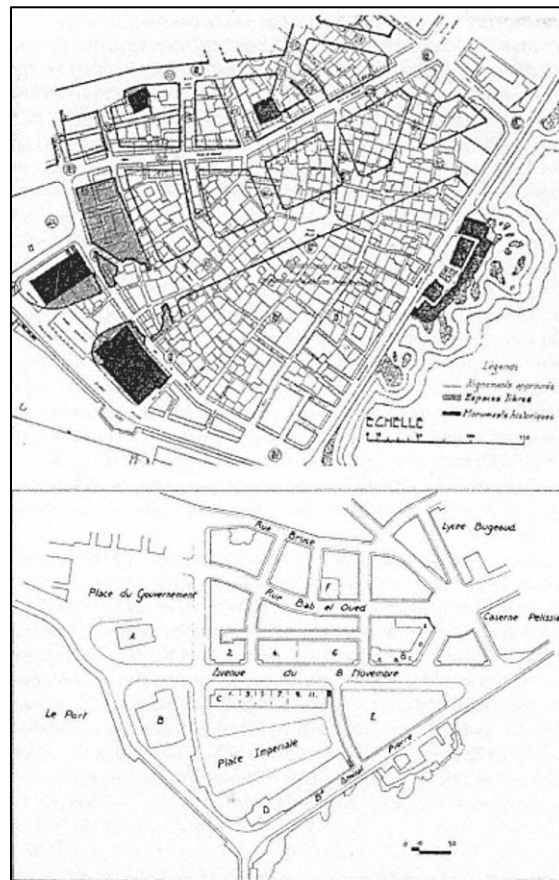


Figure 6: (Above) Demolitions' extent. (Below) Plan for the Marine Quarter, 1950.
Source: (Çelik, 1997)

Our analysis focuses on urban sprawl and evolution dynamics in cities similar to our case study Setif, geographically and culturally located central in North-African, Maghrebi region. The primary objective remains the urban dynamics and diving factors and to draw parallels with the renewal circumstances in Setif.

3.2.1 The Maghrebi City

The Greek, Roman, Byzantine, Muslim marked their territories in the Mediterranean basin, especially the Maghreb, that has long hosting remarkable civilizations - (Jamil M. Abun-Nasr, 1987). Ruins are standing as eternal testaments to their mastery as they imprinted their creative genius through natural evolutionary processes, each rooted in the vestiges of another.

While Ottoman urban fabrics are often characterized by intricate layouts and historical significance colonial cities were juxtaposed and sometimes superimposed, stand as reliable witnesses to the dawn of Europeanization. Yet Muslim-Ottoman medinas continue to influence religious identity and culture, for instance they may reflect cohabitation of ottoman and colonial urban fabric in the case of Tunis, contrasting with Algiers Casbah where distinction between Ottoman-era and French-built remodeling for control is clearly visible.

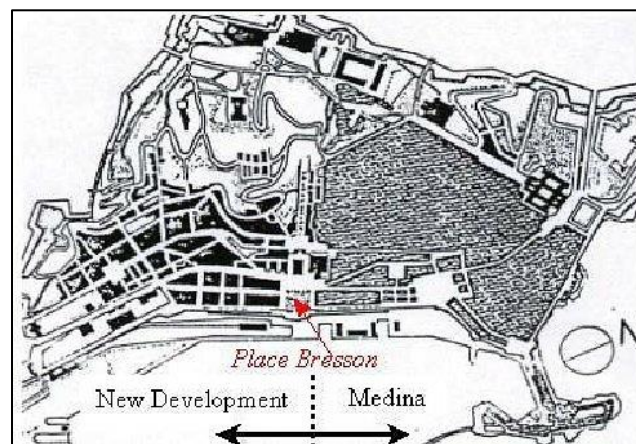


Figure 7: Plan of Algiers in 1880
Source: (Hadjri, 2004)

3.2.2 The Traditional City: The Medina

The medina, etymologically rooted in the term 'city of' Medina, denotes the Arab city in contrast to the European. It encapsulates an urban framework and social structure that is distinct and heavily imprinted by religious principles, winding, hierarchical alleys designed to respect privacy and individual space (Damluji, 2021).

At the core of the medina, the pivotal Friday Mosque "El Jamii" stands as a landmark surrounded by bustling activities such as commercial area "Souk" that exhibit corporatist

characteristics like workshops and artisan stalls lining the main arteries and thoroughfares.

At a social level:

- Medina exhibits strong social cohesion
- Separation of male public spaces (streets, alleys)
- Female domestic introverted spaces: houses, patios, terraces (Damluji, 2021).

The urban forms of Medinas were traditionally enclosed by walls with controlled gate entries to repel outsiders, maintaining security and order. Even as expanding, suburban extensions often remained within fortifications. Designed as harmonious, functional spaces meeting user needs through organic, grassroots developments, medinas showed no dis-continuity between form and function, instead showcasing custom-built human-scaled environments. For example, we can cite cities of “Al Andalus” in southern Spain such as Sevilla, Casbah of Algiers, Constanine or Ghardaïa, medina of Fez and Meknes in Morocco, to exemplify these logics and space layout through maze-like streets, central mosque, vibrant markets and clear separation of public and private realms.

3.2.3 The Colonial City:

Maghrebi cities have always been coveted lands since they enjoy a strategic location and natural resource abundance. Mirroring today the layering of successive civilization and above all a strong imprint of French culture, the last colonizing power along with European colonizers who took over many African and Asian countries, under a slogan of civilizational mission, rather than emerging organically, they imposed an “alien” culture with no local references (Said, 2014) in what is considered and called today developing or third world nations.

At urban spaces level:

- Deep transformations with heavy destruction and rebuilding of native fabric.
- Imposing architecture and urban forms to meet aesthetic needs and desires of the colonizers.

Such operations occurred mostly in Algeria while protectorate regimes in other countries led to modern colonial implantations juxtaposed with native medina (Hadjri, 2004).

At preservation level:

- Laws for traditional fabrics protection were enacted in 1913
- Ban alteration or degradation of these urban entities
- Creation of new colonial urban centers

At urbanization pace level:

Colonialism accelerated the destruction of defensive walls to integrate new urban fabrics consequently, causing a surge of urbanization

- The outskirts were dominated by suburban houses.
- Clash between old and modern districts
- Social recomposed groups undergoing segregation and exclusionary logic
- Settlers' neighborhoods vs Indigenous' neighborhoods

The resulting urban mindset was marked by colonization connotations remaining in the collective image, reiterating the long-lasting struggle between modernity and tradition profoundly shaping Maghrebi cities.

3.2.4 The Contemporary City: Dichotomy and Contrast

In the aftermath of colonialism, disruption and discontinuity were striking and the urban mindset was greatly influenced in most cities of Maghreb, economically, socially, and at development and growth levels, production processes and even lifestyles were affected to be subsequently reflected in architecture and urban planning. According to Hafiane (1989) today's realities can be described as chaotic largely stemming from post-colonial policies coupled with top-down governance due to power centralization constraining local urban management, compartmentalized policies proven discontinuity, public sector resource shortage, private sector lacking professionalism, and uncontrolled urban growth, etc.

Firstly, functional and residential densification of existing fabric, second, intense peripheral sprawl are the two main avenues for transformation of the dual structure of old medinas and European cities. Similarly to different settings, such growth responded to soaring demographics and post-colonial rural exodus. But the total discontinuity between traditional and modern starkly birthed placeless, disjointed, poorly adapted spaces, wasting land. Thus, marking the historic cores with decay and informality further

accelerates the natural/temporal deterioration and imprinting the contemporary city with complex and chaotic landscape.

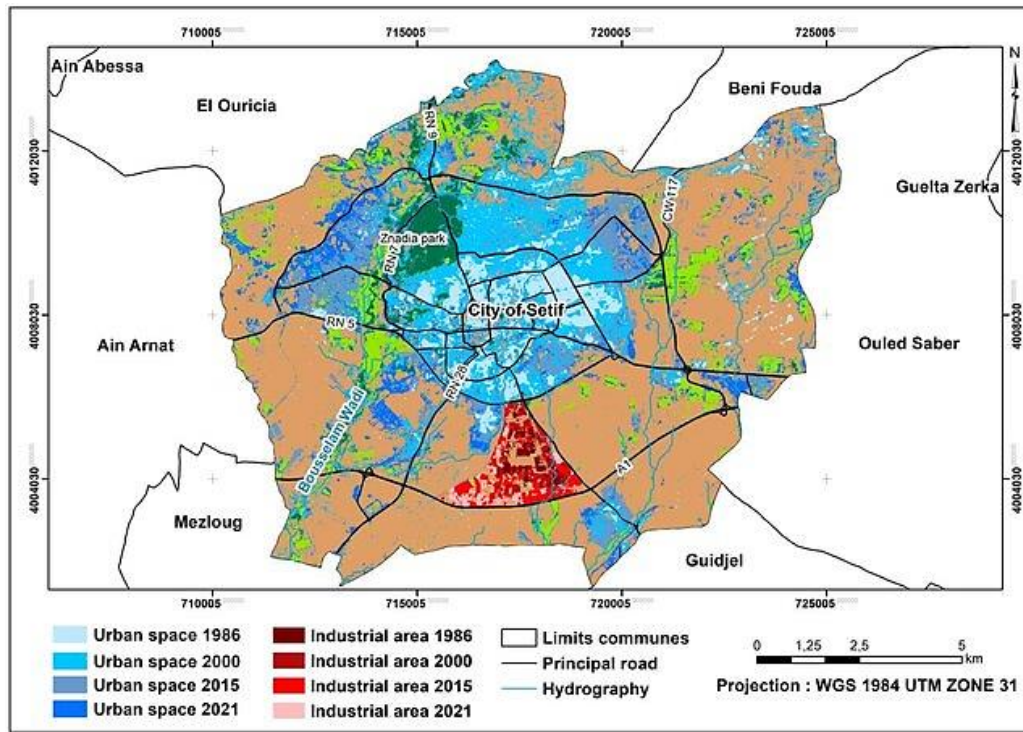


Figure 8: Evolution of Setif between densification and sprawl
Source: Melal, 2024

Now witnessing tertiarization and mixed use, centrality is shifting from historic center where it was concentrated, towards peripheral intensification (Côte, 2011).

3.3 Urban sprawl: Cost and consequences

Widespread urban sprawl generates multiple detrimental effects, including the destruction and fragmentation of natural environments, often fragile (McDonald et al., 2008) and Irreversible consumption of land and agricultural potential. It also causes a separation of home and work, generating daily motorized flows, that contribute to traffic jams, time losses and air pollution (Newman & Kenworthy, 1999).

Additionally, urban sprawl transforms the urban form into a diffuse city, a fragmented, splintered city (Bruegmann, 2006), causing disruption of communication routes, and exacerbates social and economic exclusion and by facilitating the formation of enduring pockets of poverty.

3.4 Navigating the city's crossroads: Expansion or Revitalization?

On one hand, developing new urban spaces is often at the expense of agricultural land destructing natural habitats, with negative ecological effects. On the other hand urban recycling may curb the consumption of agricultural land and preserve natural environment and promote sustainability (McDonald et al., 2008). While stopping urban expansion is not a feasible option it can always be rationalized, slowed down and controlled, a critical decision lies in whether to sprawl or renew?

For this reason, we must develop strategies to counter the negative dynamics of the city and try to improve the quality of life and the existing urban landscape, optimizing public transportation schemes and reducing the need for costly new infrastructure projects. Rebuilding the city on itself and its renewal are today subject to debate in various fields (Newman et al., 2017). Crucial questions and debate in the political and academic world to effectively regulate urban development and reconsider the already urbanized territories. Discussion on the best option between developing new spaces and recycling already developed spaces, on the pros and cons of renewal option, and arguments advocating renewal for already urbanized territories and existing urban fabrics.

At land consumption level:

- Densification and land recycling of already urbanized spaces
- To curb and limit the consumption of new spaces streamlining land consumption
- Strengthen and develop the existing spatial structure

The spatial structure is the way in which all the necessary elements (housing, facilities, economic activities, etc.) are arranged and interconnected within a territory (Newman & Kenworthy, 1999). Conversely, the anarchic consumption of space can lead to a destabilization of the territory, ultimately detrimental to all inhabitants.

At social level:

- While new urbanization increases inequality between growing and declining neighborhoods, thoughtful urban renewal promotes social and economic cohesion (Wilson, 1987)
- The recycling of existing housing fosters greater population diversity in the same neighborhood (Tallon, 2013).

At environmental level:

- Urban expansion is not an environment-friendly approach (Beatley, 1999)
- Urban renewal balances the use of natural, economical and urban and peri-urban spaces.
- Assert control over car traffic
- Protect built and natural environment, preserving urban and natural landscapes
- Safeguard remarkable sites and built heritage

3.4.1 Integrating Sustainability into the Urban Renewal discourse

Unachieved urbanization is one of the major challenges of developing countries, contrasting with urbanization is nearing completion, where extensive production seems to have come to an end (Piron, 2002). These concerns were further emphasized with increasing requirements of sustainable development of the built environment aiming to economize space and energy and to regenerate deteriorated urban territories. This approach is prioritizing the revitalization of existing urban fabrics converging to urban renewal as "a new mode of development and functioning of the city (Broeck et al., 2015).

However, the previously "creation of a city" turned into modification and management of already urbanized territories as urban renewal also involves a required transition from an urban planning of extension to an urban planning of transformation and management. This shift is often confronted with economic and social challenges (Healey, 2006).

Both urban renewal and sustainable development move in the same direction aiming to address negative impacts of urban sprawl. However, being closely tied, and sharing convergent as well as divergent planning logics. The broad scope of renewal includes rethinking the development of our cities, and the definition of tools that will make it possible to respect integrated and harmonious development in line with the principles of sustainable development. Urban renewal must tackle major problems of the contemporary city, not only countering sprawl but also addressing the increasing degradation of certain parts of the urban area (industrial wastelands, large housing estates and old neighborhoods). These degraded areas constitute significant urban planning challenges due to land scarcity of constraining development.

To adapt to the ongoing mutations and the emerging new requirements, and to counter the negative dynamics affecting urban fabrics, various interventions have been implemented.

4. Conclusion:

The exploratory retrospective attempted to shed light on the evolution of cities, cultures, needs, events, and challenges, it also revealed that traditional societies had distinct spatial, functional and social organization that was well-aligned with inhabitants' lifestyles, practices and aspirations. These cities were formerly confined for defensive considerations and limited by energy and transportation options.

However, this urban conception collapsed starting the 19th century, particularly with the emerging capitalist production, prefabrication, standardization and the 20th century automobile that altered urban thinking. Consequently, cities depicted complex spatial layouts while expanding beyond their limits into contemporary peri-urban and rurban development.

Despite contextual differences across studied cities, two key factors have driven urban sprawl and its related problems. First, demographic growth resulted from lowered mortality rates after wars and improved standards of urban life leading to a population surge. Second, the rural exodus, fueled by the alluring promise of city life, continually pushed peasants towards urban comforts.

Consequently, urban sprawl has been marked by several negative impacts, sparking tensions. Clashing with quality of life demands as standardization and prefabrication resulted in the creation of mediocre, placeless spaces. Moreover, conflicting with sustainable urban development as sprawl consumes land, fuels cars dependence, and raises pollution and environmental damage. This unchecked expansion and shifting centrality has also caused the devitalization of city centers (Haouche, 2023) and the decline of abandoned urban fabrics.

Urbanization essence is closely tied to sprawl. Although unstoppable it requires thoughtful combination with urban renewal, reconstruction, reclamation and compaction to curb unconditional expansion. Rationalization, control, re-conception or re-humanization of the spread-out city are today's keywords. Strategies to improve existing areas while preserving agricultural and natural land for future generations are needed. Simultaneously questions and debates arise about the beginning of this process, the planned and/or spontaneous nature of its implementation, is the urban fabrics age the

exclusive driver, what possible solutions for decaying urban fabrics, what theories shaped the duality between preservation and demolition?

These are some case-study related elements to be further explored in the following chapter.

Chapter Two (02)

Urban Dilemma: To preserve or to transform?

1. Introduction:

Recently, more attention has been paid to the opportunities for the positive transformation of the old building structures and urban tissues that represent the historical layers of cities, challenging both in terms of their heritage and morphology. The dynamic nature of these fabrics has resulted in rapid transformations that impact their functions, structures, and forms, thereby giving rise to concerns about the decline of these spaces. This prompts the need for approaches intended to improve their operational conditions and to enhance their environment are highlighted in this case.

Tackling such urban entities is guided by a dichotomy between preservation-protection and transformation-creation. The question arises as to whether priority should be given to preserving existing elements or creating something entirely new (Choay, 1965).

Furthermore, the debate revolves around the emphasis on specificity versus originality. Scholars have pondered whether preservation stifles creativity and innovation, or whether neglecting preservation deprives us of the essential roots and memories required for innovation to flourish (Brem, 2021).

Addressing the challenge infill development or introducing new elements into existing structures requires careful consideration. To gain insight into this matter, this chapter aims to trace the evolution of reflections on the preservation/demolition divide over time and examine the complexities associated with the construction process in old built environments. These complexities manifest themselves in the intricate and often delicate relationship between the inherited structures from the past and the contemporary interventions in the urban fabric, presenting spatial challenges that demand thorough analysis.

The subsequent sections of this chapter will first examine the issues of decline and the imperative for old urban fabrics' survival. Secondly, it will explore controversial perspectives and visions regarding their future preservation and transformation. Finally, it examines the design challenges in existing urban fabrics, such as the harmonization between tradition and modernity and other innovative design approaches.

By exploring these topics, this chapter endeavors to shed light on the intricacies involved in working with old urban fabrics and provide valuable insights into the considerations and strategies that can facilitate the successful integration of contemporary interventions within these historically significant contexts.

2. Navigating the Aged Urban Fabrics: Between Decay and preservation

2.1 Definition and interpretation of Urban fabric:

There is no better word that can depict the idea of continuity and renewal, as well as change and stability than the word "Urban fabric", when applied to cities. It covers the arrangement of the ancient cities as well as the dynamics observed such as continuity, renewal, permanence, and variation as well as the complexities in the development of urban societies (Steadman, 2014). The use of the word "Fabric" derives from metaphoric associations of cloth and tissues where concepts of integration and fluidity resonate.

As Philippe Panerai explains, the concept of urban fabric holds a dual meaning (Panerai et al., 1999):

- A localized viewpoint that temporarily overlooks the city's overall organization, framework, and skeleton, concentrating on its contents and infill
- A holistic attribute characterized by a strong interdependence among urban elements and their ability to adapt, modify, and transform (Madanipour, 2018).

There are numerous definitions of urban fabric, (Moudon, 1997), but they generally encompass the interconnectedness, solidarity, and spatial and social adaptability of urban components (Marcus & Saka, 2012). Describing the elements of urban fabrics requires further clarification. In 1978, Pierre Pinon gave a comprehensive definition of urban fabric as "the outcome of the more or less complex and relatively stable combination of a certain number of plot patterns (Borie et al., 1977). These patterns create the urban form's consistent aspect and typically result from the superimposition of plot patterns at various levels: plot division, road network, buildings, and open spaces. These levels constitute analytical components to which they can be adapted depending on the analysis requirements and the desired depth (Madanipour, 2018).

According to Philippe Panerai, the urban fabric is composed of three interconnected networks (Panerai et al., 1999): the road system, land divisions, and buildings.

To comprehensively describe urban fabrics, it is essential to incorporate Philippe Panerai's three elements and supplement them with Pierre Pinon's concept of "open space"(A. Borie, P. Micheloni, 1976) to gain a deeper understanding of their composition. Therefore, the constituent elements of urban fabric are as follows:

- **The road network:** This system of interconnected roads serves as the spatial framework of the territory, facilitating circulation of various functions and levels of importance. It connects different parts of the territory and provides structural support for the urban fabric.
- **The plot division:** The division of land into individual plots is a way of appropriating space. This fragmentation of territory is often determined by the layout and plays a significant role in the fabric's composition, serving as a foundation for buildings.
- **The buildings:** This element encompasses all the constructed masses within the urban form, irrespective of their function or size. The buildings are situated within the spaces defined by the road network and are partially influenced by plot divisions (Gauthiez, 2003). Referred to as the building fabric, they are characterized by their age, function, and elevation.
- **The open space:** The open space comprises non-built areas, both public (squares, esplanades, streets, etc.) and private (courtyards, gardens). It represents the void, contrasting and complementing the solid structures of buildings (Lynch, 1960).

In this case, urban fabrics comprise of solid and void spaces and is structured through strengthening the relative arrangement and spacing of the masses, significantly contributing to the urban landscape (Madanipour, 2018). The sequential and reciprocal relationships between physical elements define the urban fabric, progressively reconfigured because of historical developments affecting its components (Steadman, 2014). The characteristics of the urban fabric with respect to size of plots and the strategies employed for their allocation can impact the overall adaptability of the city (Marcus & Saka, 2012).

2.2 Between destruction and creation: The colonial urban planning in Algeria

2.2.1 The aged city core:

The foundational urban space of ancient cities is undeniably the initial core, serving as the resilient back bone upon which contemporary cities have developed. The woven and loomed old fabrics that provide insights into the conditions of the city's establishment are often identifiable through their distinctive architecture, the age of their buildings, and the structure of their road networks and plot divisions. However, the question arises as to what determines the exact timeframe that qualifies a fabric as "old?"

Pre-industrial and medieval urban fabrics or generally those dating back to periods before the 20th century are considered "old" (Madanipour, 2018; Moudon, 1997). However, cultural, technological, and historical factors also shape urban fabric and define it along with the age of its buildings and urban patterns.

2.2.2 Two faces of Algerian old urban fabric:

Between fabrics of Medinas, historical villages, Ksars, and Casbah called "Traditional fabric", and colonial villages and city centers called "Colonial fabrics", various urban realities with distinct cultural and spatial models characterize the Algerian old urban fabrics

Algeria being part of the Maghreb region, like many other countries under French colonization, became an experimental ground for new urban regulation models that were intended solely for the purpose of maintaining the colonial domination. At the beginning of French colonization, soldiers and settlers established themselves within pre-colonial urban agglomerations, particularly the medinas.

The substantial transformation of lower casbah in Algiers is an illustration of physical appropriation of existing urban fabrics necessitated extensive destruction to create a built environment that could accommodate lifestyles and functions for which it was not originally intended. This process of contested space within the medinas proved to be unsatisfactory, leading to the disintegration and destruction of pre-colonial urban fabrics without providing the spatial conditions necessary for the settlement and activities of Europeans (Hadjri, 2004). Over time, these two entities' fabrics would no longer be superimposed upon or derived from the pre-existing fabric, consequently shifting towards a spatial segregation of the two urban agglomerations, leading to a growing awareness of the incompatibility between the Muslim city and the colonial city (Grabar, 2014). This realization marked a significant turning point, which was followed by a theorization of the separation between these two urban orders.

2.2.3 The colonial urban planning imprint

Distinct urban characteristics emerged during the colonial period as a result of specific operations on traditional cities and the implementation of a territorial project, which included the creation of settlement villages and urban centers (Mosbah, 2008).

The colonial villages strategically located near agricultural land were established by the colonial authorities to accommodate European settlers, granted either free of charge or for a nominal fee to encourage settlement. These villages, characterized by orthogonal streets and low houses, played a significant role in shaping the network of agglomerated centers in the countryside, with 475 such villages built over the course of almost a century (Côte, 1988). Initially intended for settlers, some of these villages gradually attracted Algerians and have since evolved into towns. In these new towns, the city center corresponds to the old perimeter of the original core of the formerly colonial village.

Spatial layout and unique morphology generally define the city centers of colonial urban planning, mainly featuring an orthogonal layout with relatively uniform plots. The architecture plays a prominent role, with buildings exhibiting a family resemblance, sharing construction materials, openings, and roofs with related forms. These urban centers are characterized by a high density of buildings, with buildings set-back aligned along the streets and clustered around squares and monuments. Mostly of private nature, the land, has remained largely unchanged over time, structured by a peripheral, heterogeneous tight parceling (Saidouni, 2000).

The square defines the military engineering in Algeria, surrounded by the characteristic triad at the center of French villages "school, town hall, and monument". According to Malverti, "colonial city centers are above all military cities, as the military engineering service is concerned with housing the troops, subsequently, the civil district is laid out" (Malverti, 1988). These ex-nihilo neighborhoods, designed for the European populations, developed their own spatial logic with a very specific architectural and urban texture, will draw different inhabitants and undergo considerable transformations due to major socio-economic changes post-independence.

2.3 The need for immediate intervention to mitigate decline

Post-independence urbanization trends have not been following the socio-economic changes leading to a process of impoverishment and disqualification of old urban fabrics.

The following indications are closely tied as they occurred successively highlighting causality:

- The exclusion or under prioritization of old urban fabrics from the overall development of agglomerations, towns and cities after the hard-won independence, precipitated a movement of decline and degradation of these cores.
- The social imbalances of the colonial period and their spatial manifestation influenced the reappropriation of the city by Algerians (Semmoud, 2001).
- Rural exodus of the Algerian population towards the "European" city.
- leading to overcrowding and social segregation.
- Mostly low-income population occupied vacant housing
- Inhabitants lacking means to maintain building structures and often saw no "value" in the old fabric.
- The demographic pressure led to over-densification of the built space through various processes such as fragmentation and subdivision of housing, additional stories on buildings, and the conversion of activity sites into housing.
- Increase in the phenomenon of cohabitation of several households.

Additionally, ignored and poorly adjusted regulations the colonial fabric experienced over-occupation, deterioration and decay (Çelik, 1997).

Currently undergoing a symbolic devaluation, old urban fabrics face a multifaceted crisis, the search for solutions or remedies is imperative (Tallon, 2013). Significant stakes mark the future of these fabrics with uncertainties. Questions arise about how to intervene in this ailing body?

While the survival and revitalization of these strategic spaces, have become a major issue, requalification, revaluation, renewal Thoughtful and context-specific interventions are a must

3. The contentious future of old fabrics:

3.1 The dichotomy of old fabrics regeneration

The tension between the movement of globalization thrusting us into the future and the imperative to preserve the past is palpable. Cities exemplify this tension, with some displaying amnesic indifference and advocating for a clean slate (Rahal, 2012), while others exhibit an obsessive will for conservation. According to Godar (2001), "*To the future of the first ones, a past must be given back, and to the past of the second ones, a future must be built.*" The debate around the future of ancient cities in the face of modernization has long been a subject of contention, exploring questions of preservation and destruction. This debate revolves around the clash between innovators and conservatives, each holding opposed conceptions regarding interventions in ancient fabrics and the relationships between the ancient context and new development (Giovannoni, 1998).

3.1.1 The critique of the industrial city:

In pursuit of a remedy for the ailing city, preservation and demolition for rebuilding have historically defined the city's existence, shaping its fabrics until the 19th century. The industrial revolution of the 19th century significantly disrupted this ancient balance, accelerating the pace of cities' evolution. Haussmann's modernization and expansion works in Paris prioritized monuments, and to put them on stage, he destroyed Paris old district to clear perspectives, involving massive and dramatic demolitions in the ancient fabric, furthermore he justified his actions by the need for health and modernization (Christiansen, 2014).

The conservative context in England raised voices such as William Morris announcing the first calls for the protection of existing monuments in response to this wave of destruction. As the founder of the Society for the Protection of Ancient Buildings, influenced by the writings of John Ruskin and Pugin, he mobilized civil society to urge authorities to limit the rights of private owners and architects over this heritage. Ruskin (1890) argued, "*The preservation of the monuments of the past is not merely a matter of convenience or sentiment. We have no right to touch them. They do not belong to us. They belong partly to those who built them, and partly to all the generations of mankind who are to follow us.*" Notably, the notion of conserving buildings emerged at a time when man had acquired the power to destroy cities.

Carballo (2002) explains the heritage interest by the awareness of disappearance, we can say that large-scale transformations are irreversible and testify for the fragility of our environment to be preserved for future generations.

The city transitioned from a natural phenomenon to a cultural phenomenon necessitating human reflection. This reflection stems from observing the new disorder of the emerging industrial city, focusing on the notions of hygiene, functionality, and chaos (Rahal, 2012). Beyond these criticisms, it also questions the political, economic, and social systems, drawing on the economic and philosophical concepts from the late 18th and early 19th centuries. The ideas of industrialism, exploitation of man by man, and alienation through work form the foundation of the theories of Owen or Fourier that are central to this critique.

Two distinct political visions of society “the progressive model and the culturalist model” (Choay, 1992) to address these issues, both emerging from the same critique of the industrial city. This critique represents a departure from the urban order of the ancient city.

3.1.1.1 The progressive model:

According to Descartes (1666), progress in philosophy necessitates the destruction of existing structures, discarding unfounded opinions to acquire new experiences and establish more certain ones. The progressive thinking in architecture, is like demolishing an old dwelling to build a new one is also the progressive thinking, one step forward and one step back.

The revolutionary progressive vision of the 20th-century, lies in the great revolution in need of an entire tabula rasa of the ancient city, deeming urban history to be irrelevant. The progressive model, stemming from the socialist utopias of thinkers such as Robert Owen, and Charles Fourier, is founded on the concept of the standard man with predetermined needs. This ideology places faith in the future, science, and technology, believing that progress will resolve the problems of cities.

The functional organization of the city and its urban form reflect the progressive ideology, with advocates proposing a new urban order that can be applied to any human grouping at any time and place. This order encompasses standard housing, unlimited urban growth,

and an open urban form organized and divided according to urban functions, integrated with the countryside.

The progressive city advocates for the replacement of the old city by the new city and rejects the heritage of the past. While for progressists, preservation of old buildings unsuited to contemporary uses may be perceived as an unnecessary complication or as a suspicious form of nostalgia, demolition is viewed as a revolutionary political act that establishes a new spatial order.

3.1.1.2 The culturalist model:

A culturalist or conservative model emerges as a reaction, portrayed as a nostalgic vision seeking answers to the urban chaos of the industrial era by drawing on historical models. The writings of Pugin, Morris, Ruskin, and Howard embody this thought, although it finds few proponents in France, Rahal (2012) cited Victor Hugo, who opposed the demolition of old Paris. Hugo (1898) *laments*, "*The Gothic Paris, which had overshadowed the Roman Paris, has in turn faded away. But can one say what Paris has replaced it? The present-day Paris lacks any general physiognomy. It is a collection of samples.*"

The culturalists emphasize that their model does not stem from the individual but from the collective, from the city itself. In contrast to the progressive model, it focuses on particularities rather than the typical needs of each member. It rejects the transformations of urban space brought about by the industrial era and resists the modern features bestowed upon cities by modernity. The cultural city, unlike its progressive counterpart, possesses a well-defined character, modest dimensions, and draws inspiration from medieval cities. Geometry and prototypes have no place within the city (Choay, 1965). Politically, the idea of community and collective identity is strongly emphasized, while anti-industrialism prevails on the economic front.

The city of the 20th century must return to the model of an ancient city. The future of the city should be rooted in urban history. While hygiene holds primary importance for progressives, conservatives prioritize the aesthetics of the traditional city. Ruskin (1848) argues, "The ugliness spread by industrial society results from a lethal process, from a disintegration due to cultural deficiency. This can only be fought by a series of collective measures, among which the return to a conception of art inspired by the study of the Middle Ages is particularly necessary." Emphasis is placed on the original site, public

spaces, and the picturesque character of compositions, as exemplified by Camillo Sitte's work "The Art of Building Cities" (Sitte, 1996), which analyzes the quality of squares in Italian cities. This culturalist movement gives rise to a consciousness of and regulations inspired by historicism for the preservation of old buildings.

Historical sites were considered via a colonial lens in the early 20th century, some medinas (old cities) in Morocco were preserved, initially for ethnological reasons and subsequently due to aesthetic concerns. These medinas represent the built expression of traditional ways of life and the culture of the populations, seemingly incompatible with Western-style urbanization (Jamil M. Abun-Nasr, 1987). Consequently, the urban foundations were preserved and kept separate from the urban modernization initiatives undertaken by the French. As this conservative perspective shifted to Europe, it sparked a renewed appreciation for the significance of intact historic sites as witnesses to and remains of previous civilizations and ways of life

3.1.2 Reimagining cities in the 1920s: Towards modern planning

In the aftermath World War I, the need for creation and innovation prompted urban and architectural revolution, consequently, the modern movement was founded directly on the progressive model, embodying a dynamic vision in opposition to the old order as a representation of retrograde thought. The central concept of this model is modernity. Françoise Choay (1965) referenced Le Corbusier's proclamation in the journal *L'Esprit Nouveau* "A great era has just begun, there is a new spirit". Few years later, the CIAMs (International Congresses of Modern Architecture) advocate anti-historicism and the clean slate, which was implemented in urban centers in the 1950s and supported by the Athens Charter. This charter specifies that "*in no case should the cult of the picturesque and history take precedence over the healthiness of housing*" (Corbusier, 1957). The notion of making a tabula rasa of the past to rebuild is thus integral to the dogmas of modern urban planning. According to Le Corbusier (1925), a new civilization has emerged that cannot be adequately represented by anything from the past, necessitating the creation of entirely new forms and ideas.

Le Corbusier envisions the possibility of transforming these collected memory objects to make them suitable for the needs of modern life. In line with his urban planning thought, he plans to select architecturally noteworthy objects, repair them if necessary, or even

move them to replant them in a garden. Now, the desire to demolish encompasses not only individual objects but even entire historic cities.

This vision is fundamentally at odds with the meaning conservation takes on in the culturalist model and its development. This model was mainly developed in England and Germany with Howard, the father of the first garden city, and his influence on the writings of the architect-urban planner Camillo Sitte. For these proponents of the historical vision, the continuity of the city should be preserved beyond isolated buildings. It is the object, certainly, but in its relationship to the group as constituting a whole, the form of the street, the plot, the public square. This model will be especially developed in the Anglo-Saxon world, but the demolition/conservation cleavage widens with war, taking on the scale of the entire traditional city.

Gustavo Giovannoni (1998), convinced of the complementarity between ancient and new fabrics, integrated this idea in 1931 in his book "Urban Planning Faced with Ancient Cities," shifting the role of historic centers from mere icons evoking the past to providing them with a function and qualities able to meet the needs of modern cities and their inhabitants. He introduced ancient fabrics into master plans by reserving them for uses adapted to their specific morphology (Choay, 1992), linking the necessities of the modern city and the preservation of the ancient city.

The idea of the historical value of the city gradually gained substance, developing and maturing in opposition to modernist and renovating urban planning currents.

3.2 Antiquity Vs Modernity at building level

The preoccupation and concern about the added value of ancient buildings bearing memory within an evolving urban setting, is often bringing demolition versus preservation question. Professionals and decision makers of interventions on the existing fabric are confronted with pros and cons.

Three types of considerations must be analyzed to make a choice (Schawch, 1998):

- **Technical considerations:**

This involves a technical assessment of the adaptability of buildings to be preserved for a new use. A detailed analysis is necessary to avoid complications on the rehabilitation site. It is essential to check the capacity of the foundations and the

general structure of the buildings, the reusable secondary work elements, fire safety, as well as general safety precautions.

- **Functional considerations:**

Rehabilitating and conserving an old building often involves conversions. However, installing a new function in an existing building is not always straightforward. Such a procedure requires a great deal of effort and imagination, especially for the choice of a new use, which must be associated with a form that was not initially intended for it. When confronting a program and a building, some problems can arise, such as inadequacies in ceiling heights, building widths, number of floors, rhythm of windows, shape of the building itself, and other details that can impede reconversion.

- **Qualitative considerations:**

These encompass the historical, architectural, and social characteristics of buildings or districts. The rehabilitation of such buildings can be expensive and their functional adaptation quite complex.

While considering one of these aspects is crucial in urban composition, their comprehensive combination is highly recommended. The choice of demolition or conservation is not exclusively technical. It reflects a mindset that relies on the characteristics of the existing before deciding to reinforce it or replace it. Conservation of a building with a specific, symbolic value or that can still fulfill functions is preferable to demolishing and rebuilding anew.

Considering renovation operations does not necessarily call for demolitions; the rehabilitation of the existing is among the challenges of this approach (Brand, 1994).

4. Challenges of merging past and present in Existing framework:

Creation and innovation in architectural production is crucial, yet it poses intricate challenges when it comes to integrating into existing urban fabrics. Urban planning and architecture are intricately interdependent in this regard. Architectural creation in itself open doors to unpredictable scenarios as it is subject to different contexts and historical periods. Technological advancements such as the reinforced concrete in late 19th century, influences of socio-political climate on architectural and urban forms, like Soviet architecture and its ideological principles. Moreover, devaluation spiral or enhanced

environments can either be due to cultural and religious, economic, or environmental and geographic (Kostof et al., 1992).

Planners often grapple with practical considerations regarding the integration of heritage into modern architectural and urban planning projects involving existing structures. Mehta (1991) ponders, *"By looking for the part of tradition in modernity, one wonders if, in the process of resourcement, one has to think in terms of rupture or continuity."* This perpetual dilemma revolves around the adaptability of old fabrics to modern needs within a traditional framework, or vice versa. The challenge lies in being both authentic and modern simultaneously. What is the legitimate approach to adopt? Do new interventions inevitably disrupt the continuity of pre-existing fabrics?

To address these questions, it would be insightful to explore how the issue of building in ancient built environments has manifested in the history of urban architecture. The attitudes adopted by public and private authorities in response to this issue deserve examination, given their significant effects, both positive and negative, on architectural and urban planning. These attitudes have often resulted in a divorce from history and existing structures.

The opposition between the "old-new" has become increasingly significant, giving rise to reactions related to the integration, insertion, and architectural and urban compatibility of new interventions within an existing landscape. These issues are of paramount importance, as they have engendered and continue to generate attitudes that can be summarized according to Reny (1991) in two schools of thought:

- Emphasizing the virtue of adapting the building to its circumstance and location,
- Prioritizing the search for good architecture.

Faced with these opposing approaches while seeking consensual solutions, several questions remain on the appropriate approach and mimicry, contrast, or compromise as integrative strategy.

4.1 Redefining relationships beyond age barriers

Integrating contemporary architecture into existing built environments presents complex challenges. Approaches adopted during new interventions have ranged widely, from indifference to context generating ruptures in architectural and urban unity, to absolute

submission resulting in mimicry. Satisfactory results are not always achieved, as evidenced by examining modern achievements within ancient fabrics.

4.1.1 Existing structures under reconstruction

As entire cities were destroyed, the unprecedented need for (re)housing and infrastructure following the extensive demolition of World War II, the period of large postwar housing projects, rebuilding on demolition sites erased traces of war. European approaches for cities' reconstruction from 1945 to 1965 were profoundly transformative time technically and in construction industry modernization.

Rebuilding cities posed fundamental political and architectural stakes. The state directed reconstruction financially and architecturally. To carry out this difficult task, the Republic created the Ministry of Reconstruction and Urban Planning. Its role was pivotal, requiring reconstruction plans adhering to principles. Reconstruction sparked debates on how to rebuild: through identical reconstruction restoring pre-war forms, or modern reconstruction opting for functionalist urban planning advocated by hygienists?

The Ministry chose both approaches simultaneously. With identical reconstruction, the city becomes a monument with each building restored as needed. With modern reconstruction, the city constitutes a sanitary, functional, rational unit, condemning old city congestion, insalubrity and narrowness. New principles prioritized hygiene, widening streets and opening courtyards. Blocks were sometimes amalgamated, and cores cleared.

Thus, reconstructions entirely freed from old layouts and forms were rare. Achievements like Saint-Malo and Warsaw faithfully reconstructing history, or "moderate modernity" generally compromising between old and new with old predominating and new cautiously introduced, were more common (Glendinning, 2013). Overall, reconstruction significantly redefined relationships between new and old.



Figure 9: Saint-Malo after bombing in 1944 and after reconstruction in 1954

Source: Philippe Pettout

4.1.1.1 Pairing architecture with historical reconstruction:

Historical reconstruction, in essence, represents the architectural and urban planning solution that aligns with those who staunchly opposed change and renewal. Rooted in the principles of historical restoration, its primary goal was to rebuild old cities while preserving their past silhouettes and general aspects as much as possible. This approach, drawing on the concept of stylistic unity popularized by Viollet-Le-Duc, focused on restoring the city's components to their original state and rebuilding them in their proper styles to reintroduce unity and homogeneity. The reconstructed buildings closely mirrored their pre-war architectural forms, down to the finest details. The main road network of the urban fabric was largely preserved, and while some simplifications were made to the old structure, the new layout remained connected to the old one, allowing cities to maintain their distinct images.

However, this mode of reconstruction was reviewed due to the unsatisfactory outcomes and substantial expenditure. The scarcity of examples following this approach illustrate the shift. Relegating contemporary creative expression in old environments to a secondary position, this approach was often labeled as confined backward-looking approach that rather favored pastiche and an accompanying architecture avoiding site disruption.

This form of reconstruction, primarily centered on historical precedence, yielded few innovative effects and results of limited interest due to the absence of originality. The most prominent example of this approach is the city of Saint-Malo, where the identical reconstruction respected the character of the old city, adhered to existing urban layouts, regularized them, and preserved the traditional aspect of the buildings to avoid scale

ruptures between old and new constructions. This context, considering innovation as risky was primarily marked by attitudes prioritizing uniformity as a safer model.

4.1.1.2 Navigating modernity with moderation

When discussing post-war reconstruction policy agendas of French cities, "moderation" or compromise in modernization are keywords. Behind these keywords is a clear intention to avoid the metamorphosis of urban fabric, to minimize radical changes caused by innovative architectural forms that can interfere with the overall urban landscape of "reconstructed" cities. This moderate modernization approach to post-war reconstruction is exemplified by cities like Warsaw and other German cities like Dresden, and Frankfurt. Unlike Rotterdam in which historic elements have been preserved together with innovative modern architecture. Dresden restored key historical buildings and introduced modernity in developments. Frankfurt rebuilt old town reflecting historical form while embracing modernist planning. These cities highlight balancing heritage preservation with modern functionality needs in urban settings.

The reconstruction intended to free itself from the unsanitary level of the pre-war cities, conform with the demands of the modern traffic patterns and at the same time it tried to conform with modern traffic requirements, and at the same time ensuring continuity when integrating new building in a highly symbolic and iconic built environment, without neglecting the character of old cities.

However, despite the efforts made to recreate the picturesque qualities of ancient cities and to strike a balance between the historical architecture and the modernity of new constructions, several questions arise.

Can this compromise that neither replicate the past nor fully embrace modern designs truly restore the essence and spirit of the reconstructed cities?

Between fully embracing modernity and faithfully imitating the historical, the reconstructed blocks themselves, characterized by buildings that neither fully embrace modernity nor imitate the old, evocative features and arrangements of formerly existing cities before war remain. While accommodating the demands of contemporary traffic, unclearly defined streets draw loose inspiration from previous layouts.

4.1.1.3 Renouncing the Past with clear slate

After moderation in modernity proved limited outcomes, a diametrically opposed vision rising from a subsequent question: What if we break away from historicism and old urban fabrics advocating for renewal? Reconstruction attempts played a significant role in prompting public and private authorities to fundamentally revise their approach and embrace the doctrine of rupture and “**tabula rasa**”

A notable example of this approach is the reconstruction plan for Rotterdam after the Second World War. The urban planner W. G Witteveen, and later C. van Traa (1946) embraced Modern urban planning and architecture, discarding significant part of its historical layout in favor of innovative urban design. The rupture with the past was clear, with no intention to reconnect with the past, new functional landscape was outlined, presenting wide streets, modern infrastructure, and mixed use ranging from residential, commercial to cultural spaces

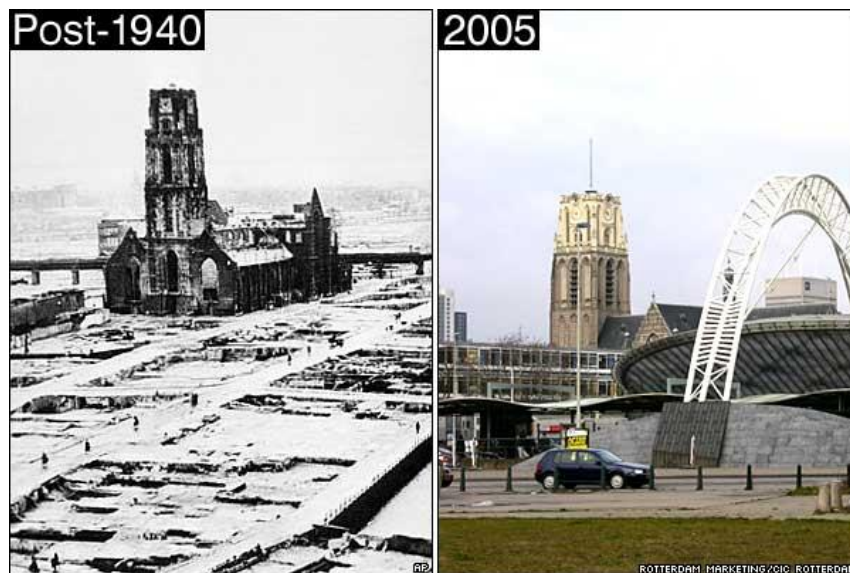


Figure 10: From invaded Netherlands to redevelopment around St Lawrence Church

Source: http://news.bbc.co.uk/2/shared/spl/hi/pop_ups/05/europe_wwii_cities_then_and_now_/html/6.stm

Moreover, innovation in materials and techniques, such as steel and glass, mirroring functionalism and modernity prioritization. The emerging layout featured broad avenues

paved with modern housing blocks and green spaces, aiming at improving living condition and meet increasing accommodation needs with population growth.



Figure 11: van Traa model of reconstruction for Rotterdam

Source: <https://www.3develop.nl/blog/wp-content/uploads/2020/03/rotterdam-basisplan-wederopbouw.jpg>

Ultimately, this form of reconstruction allowed urban planners and architects significant creative freedom, leading to the development of urban fabrics and architecture that departed significantly from their historical precedents. The principles guiding these projects were informed by contemporary technological processes and a streamlined set of architectural rules, resulting in modern cities designed to meet the needs of their time.

4.1.1.4 Targeted renewal: Merging modernity

This form of reconstruction does not involve the restoration of a specific ensemble but rather consists of individual reconstructions, where contemporary buildings are inserted into existing urban structures and architectural landscapes. In many cases, this model represented a rupture with the old fabric, as the new constructions were often inserted without consideration for integration with the surrounding ensemble (Jencks, 1977).

The architectural and urban coherence along with the stability of the ancient structure was compromised (Harvey, 1990) while the objectives of these interventions primarily aimed to fill gaps in cities that had experienced partial and scattered destruction.

The consequences of such interventions were detrimental both architecturally and urbanistically:

- Disintegration of the physical environment and even the city itself.
- A complete transformation of the city's overall image.
- Open spaces created by new developments replaced continuous urban fabric of old streets and squares.
- Drastic change of construction scale from three-story buildings to ten-story or even taller structures.
- Widespread office buildings overshadowing iconic silhouettes of monuments.

The traditional hierarchy of spaces and components in the city was overturned by this new organization. These punctual operations in the 1960s served as a precursor to the spectacular urban renovation projects initiated five years later (Jacobs, 1961).

4.1.2 Reclaiming Ancient Fabrics

The rising functionalistic theories and modernist ideologies played a crucial role during the 1960s, fueling debates and concerns about the deteriorating state of ancient urban fabric led to a search for solutions. The city center was seen as the vital core, and a network of streets and arteries was envisioned to revitalize the entire fabric. However, congestion and unsanitary conditions persisted, prompting discussions on how to intervene and revive the ailing body of the city. The prefix "re" (requalification, revaluation, etc.) became central to these discussions. Functional analyses and perspectives dominated, with a focus on progress and modernism. The ancient fabric transformed into a hub of tertiary activities, serving as a center for management and decision-making, requiring a well-designed road system to organize the multitude of functions.

Interventions were seen as surgical procedures, involving "cleaning" or "grafting." The State, local authorities, and both public and private capital mobilized to support massive urban renovation interventions. These interventions gained momentum in Europe from the 1950s to the 1970s, fueled by real estate speculation and influenced by functionalist urban planning and the principles of the Modern Movement advocated by the International Congresses of Modern Architecture (CIAM). Architects influenced by these principles rejected the notion of the historical city and advocated for tabula rasa. Relocations, justified by unsanitary conditions, social problems, changing needs and uses, desire for better land profitability, inadequacy for automobiles, and the aspiration to transform the image of neighborhoods were common.

However, these large-scale urban renewal projects initiated in the 1960s were often based on a superficial understanding reductive "old-new" dichotomy of the specific typology of ancient neighborhoods. Modernists justify their ambitious works and pretexted that these long time ignored parts of the urban structure are perceived as "urban disorder" with little value. Suddenly, new urban dynamics characterized these old neighborhoods:

- They became objects of lucrative redevelopment processes.
- Intensive road construction using bulldozers was used to knock down dilapidated structures
- Newly erected comfortable accommodations and healthier structures or apartment complexes.
- Profit-oriented real estate speculation.

Functionalist concepts guided these renovation works where the efficiency of the structures dominate form and shape: These renovation works, and aesthetic made a new shift in the art of building cities.

4.2 Towards equilibrium and compromise

To conclude, the imperative reevaluation of our approach to ancient fabric we acknowledge that architectural and urban practice would significantly contribute to the built environment's organization, awareness and consciousness to curb renovation shortcomings and further negotiate "modern" projects. Subsequently, the need to break away from the typical mechanical reductionism in modern architectural narratives and practices for destruction/substitution (Castex et al., 1980). Instead, we should think outside the dichotomy of form follows function and focus on appreciating architecture as a collective creation that defines spaces, accommodates practices, and fosters a sense of belonging (Castex et al., 1997). The aim is not to seek a mere reproduction of ancient city decor but to define spatial relationships that are compatible with urban practices.

Understanding the logic, formal structure, and order that govern the city becomes crucial. This knowledge should guide architectural and urban initiatives, whether in preserving the old built environment or in new interventions. The goal is to ensure that contemporary built forms coexist harmoniously with the city and its environment, and to artfully integrate the old and the new, allowing the association of past and future to emerge (Godard, 2001). By connecting space and diverse temporalities, historical city centers can avoid becoming stagnant museums or mere products of consumption.

In preserving ancient fabrics, we must challenge preconceived notions and explore change without fearing the shock of novelty. Innovation should not be banished, but rather approached with a balanced perspective. Architectural contributions should be closely aligned with the character of the whole in which they are situated, subordinating purely aesthetic and functional aspects to the broader context of the city and its history. This triangular coordination between the project, history, and the city requires careful consideration and conceiving them as complementary, competing, and antagonistic elements (Cannigia & Malfroy, 1986).

In summary, it is essential to adopt an architectural and urban approach that values the integration of old and new, respects the character of the whole, and fosters a conscious organization of the built environment.

5. Conclusion

Ancient urban fabrics are invaluable and non-renewable resources that require preservation, conservation, and appreciation. In the context of a renewed city, it is crucial to align with continuity by integrating urban legacies into the ongoing reconstruction of the city. Their preservation and transmission have become essential for legitimizing sustainability on a global scale (Tiesdell et al., 1996), as they are closely linked to questions of memory and identity.

In this renewed city perspective, critical questions arise confronting radical transformation erasing character and identity or moderate transformation, conserving and valorizing these ancient fabrics. The answers to such questions recall the collective responsibility for future generations while they call for the clear expression of political will, establishment of a plan for strategic urban evolution, launching a locally inclusive scheme involving different stakeholders. Constructive dialogue including local authorities, investors, developers, civil society and residents is key to this approach.

Chapter Three (03)

Between Density and Densification

1. Introduction:

Density and densification are key concepts directly involved in shaping neighborhoods and cities. Planners and urban designers qualify urban environments and use them to influence the dynamics of urban development. It is fundamental to grasp these concepts to practice efficient land use and management, as well as ensure the development of progressive cities and sustainable urban environments.

Density is contextual and can be defined and interpreted differently, so it is not just a metric to compare urban entities. It entails the process of gauging technical specifications, aspects of sociality, as well as perception in relation to the urban setting (Hillier & Hanson, 1984). Density in fact comprises of an overall population density, built form density and last but not least intensity of the land use. All these factors are interconnected and influence space functionality to form the character of urban areas.

On the other hand, densification refers to intensity-increasing process aiming at optimizing land use within existing urban areas. Before leading to intensification, consolidation, it entails the redevelopment or infill of low-density or vacant spaces, as well as taking the underutilized areas to the next level of density, transformation of low-density areas into higher-density ones (Burton et al., 2003). Many factors such as housing shortages, economics of land, and growing population densities are driving densification. It often includes the redevelopment of brownfield sites, the conversion or transformation of obsolete infrastructure, or the intensification and activities redeployment in mixed-use areas and neighborhoods.

In this chapter, we aim at a deeper exploration of four complementary dimensions of the relationship between density and densification in the field of urban planning. It will encompass definitions and significance of density, with regards to technical measurements, population, and considerations from sociological and perception perspective.

Additionally, the chapter will examine the process of densification, tracing its conceptual underpinnings, drivers, and ground-level techniques. By analyzing: the nature, purpose, scale and process with implications of density and densification, this chapter aims to provide insights into effective land management strategies, sustainable urban growth, and the creation of equitable and livable cities.

1.1 Density and Densification: Concepts and Definition

Although both terms share the same root, density and densification do not raise the same questions in the field of urbanism. Before examining the indicators used to measure density, and densification processes it is important to establish a clear understanding of the concepts themselves. In Encyclopedia Britannica, the etymology of density traces back to the Latin word "densus," which means thick. In physics, density is defined as the ratio between the mass of a given volume and the mass of water under specific pressure and temperature conditions. Densification, on the other hand, refers to the process of increasing the density of a population or structure within a specific area. This concept is often discussed in the context of urban planning and the development of sustainable cities, as it can have significant impacts on the environment, economy, and social aspects of urban life (Benigni, 2014; Maréchal, 2015). While the density as an ideal to be achieved can be approached in various ways, the approach of densification consists of intensifying urban spaces and does not deviate from this rule.

The concept of sustainable development leads to a reflection on space consumption, and the role of sustainable urban planning is becoming increasingly significant (Bibri et al., 2020; Debrunner & Kaufmann, 2023). The principle of densification aims to direct the development of a city within its built-up area. The ultimate goal is to avoid opening new land for construction, or at least minimize it, by densifying already urbanized spaces through construction on available plots or by rehabilitating certain areas (Godard, 2001).

Density is synonymous with terms like "compacity," "concentration," "thickness," or "strength," it carries various connotations in the context of urban statistical agglomerations.

At times, the use of density and its associated indicators can be inconsistent and contradictory. For instance, in common jargon, the positive value of density, representing intensity and expressive richness, can be overshadowed by notions of "overpopulation," "overcrowding," or "concentration" (Churchman, 1999). Therefore, it is crucial to establish an implicit definition of density that accounts for the diverse phenomena it encompasses.

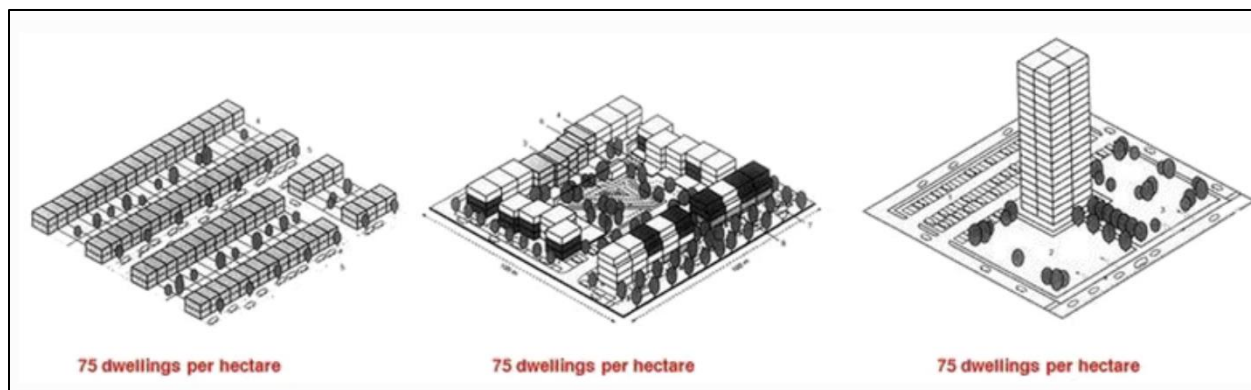


Figure 12: 75 dwellings per hectare differently
 Source: (Lehmann, 2016)

The qualification of density as "low" or "high" without specifying the scale (internal, micro, macro), the surfaces (net, gross), and the criteria (container, contained) is unreasonable and lacks clarity (Angel et al., 2021). The term "high density" is inherently tautological. In this context, density aligns more closely with the definition of mass volume. Roger Brunet's critical dictionary defines density as "the ratio of one quantity to another, particularly weight to volume, which applies generally in mathematics. In geography, it always refers to the number of objects within a defined area, such as inhabitants per square kilometer [...] Density qualifiers like high or low are vague."

Thus, density can be understood as the ratio between a measurable datum and another measurable datum that indicates either spatial distribution (expressed in length, surface, or volume units such as inhabitants/km², jobs/ha, housing units/ha) or temporal distribution (a value or timeframe).

To further explore and validate these definitions and understandings of density, it is important to refer to verified academic sources that provide in-depth analysis and research on the topic.

1.2 Normative or descriptive densification:

The concept of densification can be approached from two main perspectives.

- **The first approach** views densification as an intentional process aimed at increasing urban density over time to achieve specific goals, emphasizing the importance of dense urban areas associated with public spaces, efficient transportation systems, walkability, and accessibility (Dempsey & Jenks, 2010; Neuman, 2005). This normative perspective is directly associated with the 'new

urbanism' movement and the transit-oriented development agenda (Duany & Plater-Zyberk, 1994; John L. Renne and Jan S. Wells, 2005).

- **The second approach** inverts the one of space, center and periphery, and contends that density is an empirically measurable phenomenon that is linked with various other parameters; it raises density to the status of a 'neutral' variable which is not intrinsically associated to positive or negative effects (Mustafa et al., 2018). This was the case when Jacques Teller (2020) sought to establish the extent to which the incidence of urban density affected the diffusion of Covid-19. This is the prevalent perspective in environmental and ecological sciences. It features the incremental process increasing built and/or population density increasingly over time, either in a planned or "spontaneous" place or context-specific driven by individuals and groups (Mustafa et al., 2018).

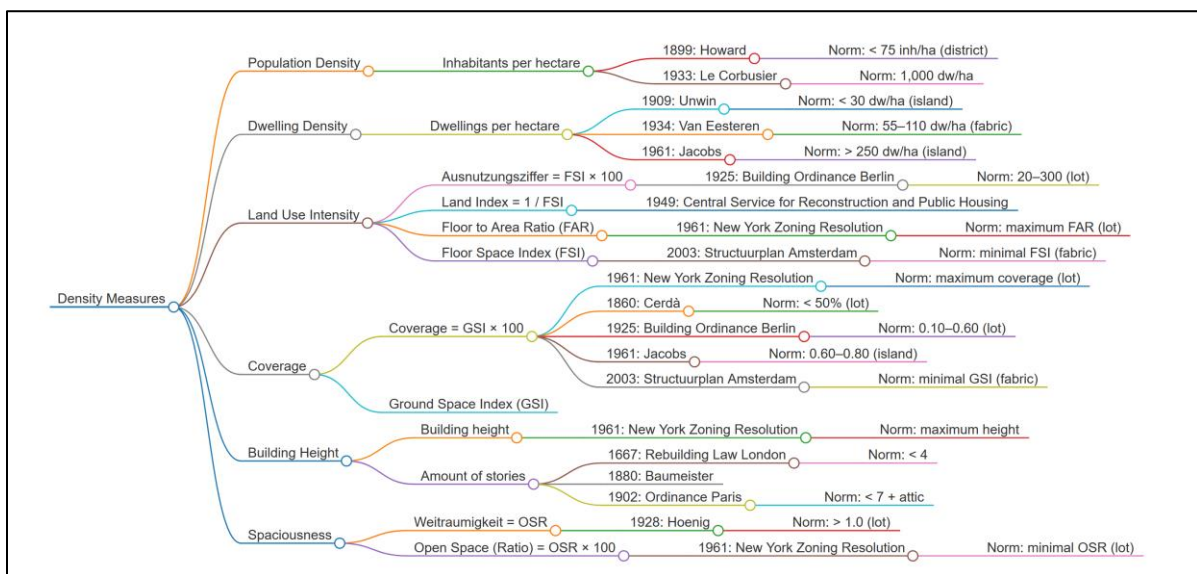


Figure 13: Density measures over time

Source: According to Berghauser Pont (2017) using markmap

The neutrality of density as a variable is contested, especially when applied to human environments such as cities or urban areas. Urban metrics tend to be performative, and the divide between normative and descriptive variables is highly questionable, as once a variable has been related to a given outcome, it is rapidly appropriated by actors and policies in developing their arguments in favor of or against certain developments. Inconsistencies between scientific studies and planning practice regarding the effects of

densification have been observed, indicating challenges in knowledge transfer and a lack of evidence to support arguments used by practitioners (Berghauer Pont et al., 2017).

Angel et al. recognize this overlap between descriptive and normative dimensions of urban density and propose a multifactorial approach involving both structural and functional factors to provide greater clarity and understanding, especially to policymakers and planners. They decompose densification into a set of seven factors and emphasize the multifaceted nature of density (Angel et al., 2011).

2. Drivers and Impacts of Urban Densification

In rapidly urbanizing cities, housing shortages resulting from a growing rural population influx have led to informal occupation of vulnerable areas, such as floodplains, by poor residents. These informal settlements often lack basic amenities and are subject to contested evictions and distant resettlements (Cavicchia, 2023), disrupting existing economic geographies and prompting return migrations to inner city enclaves. Speculative densification, driven by concentrated land ownership and failures in pro-poor financing, exacerbates housing poverty and social inequalities (Fainstein, 2009).

Furthermore, aggregated metro-level data on rising skylines, housing investments, and land sale prices reflect global urban prosperity driven by land economics and speculation. However, this concentration of wealth leads to the displacement of lower-income residents to peripheral habitats, facilitated by planning regulations manipulated to enable evictions and vacancy manufacture for gentrification profits (Brenner et al., 2012; Cavicchia, 2023). The financialization of urban living spaces, treating them primarily as an asset class, prioritizes the returns of absentee investors over the communal well-being and flourishing of local residents.

The impacts of densification extend beyond economic considerations, affecting social, environmental, and infrastructural aspects.

- Displacement and dissolving of old ties and support networks between neighbors and small enterprises induce psychological despair and health declines, while the privatization of urban commons diminishes community solidarity and economic mobility.

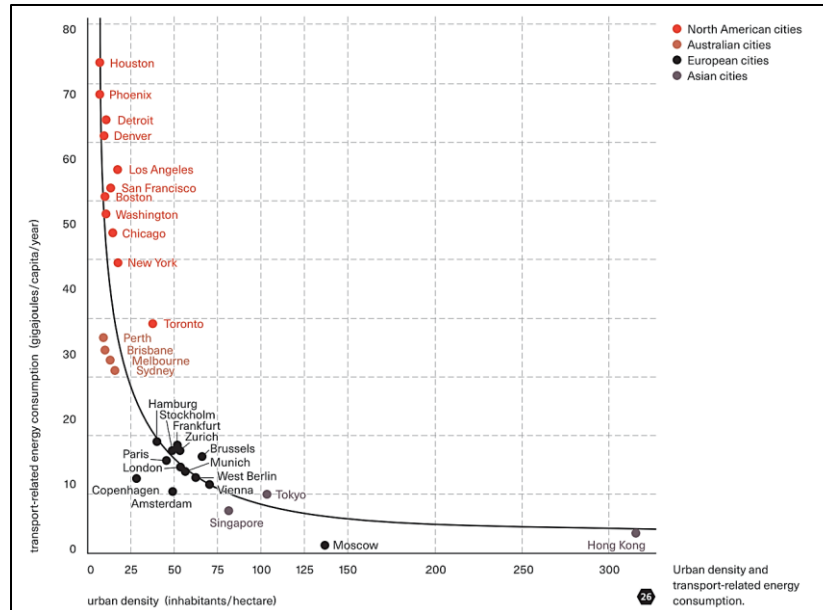


Figure 14: Urban density and transport-related energy consumptions
 Source: (Berghauer Pont, 2020)

- Rapid densification strains infrastructure capacities, compromising the environment, access, and amenity (Newman & Kenworthy, 1999).
- Elite gated enclaves and coercive takeovers further reflect elite socio-political ascendancy, violating housing rights enshrined for marginalized citizens under international statutes.

In the context of housing densification processes, various approaches are observed, including:

- Vertical expansion of existing houses,
- Infill development
- Redevelopment at higher densities.

Need-based densification tactic by homeowners themselves to accommodate expanding multi-generational joint families (Batra, 2011; Bredenoord & van Lindert, 2010), room additions through extra floors and infill development on vacant land parcels within existing dense settlements represent organic responses to housing needs. Yet, these initiatives can negatively impact neighborhood safety, accessibility, and micro-climate, however, refined tactics like land pooling, plot readjustments or amalgamations and integrated residential planning enable infill models to strengthen rather than destabilize communities (Matillana Díaz, 2023; Teller, 2021).

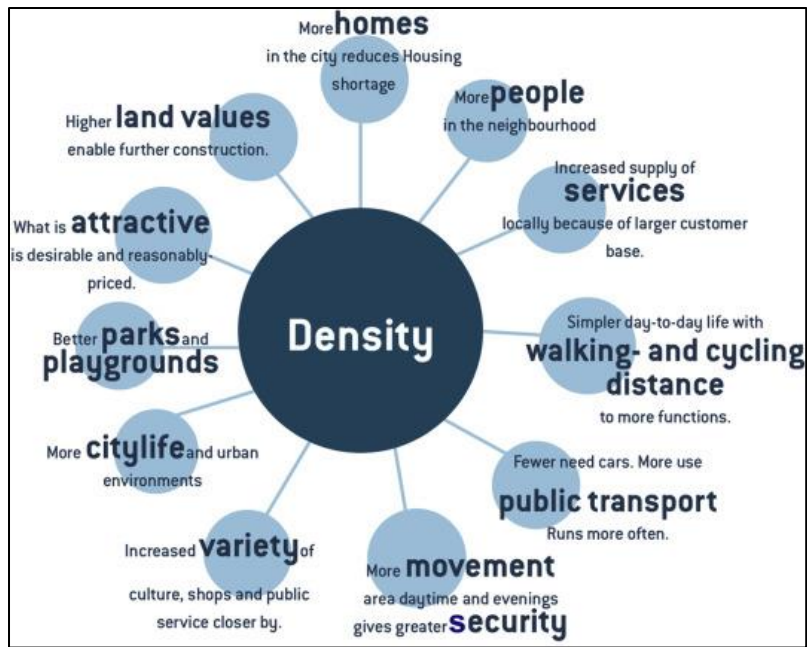


Figure 15: Multifaceted density
 Source: (Giddings & Rogerson, 2021)

Although offering the promise of sustainable futures, redevelopment at higher densities often tends to erase the rich historical and cultural legacies of communities, while primarily serving the interests of the privileged few instead of effectively mitigating socio-economic disparities (Rousseau, 2015).

2.1.1 Density Indicators and Regulatory Tools

The indicators discussed above are commonly used in urban planning; however, it is important to note that this list is not exhaustive, as the number of indicators is closely linked to the number of users and actors involved in the planning process (Moulinié & Naudin-Adam, 2005). While these indicators provide some insight into the built environment, they primarily focus on the physical aspects, resulting in a wide range of numerical values for high, moderate, or low densities. This variation hinders qualitative classification upfront (Taylor, 1998).

One commonly used indicator, as described by Fouchier (1997), is the floor area ratio (FAR), also known as the plot coverage ratio (COS) in France and Algeria. This indicator represents the total built-up area divided by the land area and serves as a prime regulatory tool (Lacheheb, 2012). A higher COS value indicates a denser urban fabric. The FAR can be calculated using either the total floor area or the total built-up area divided by the plot area.

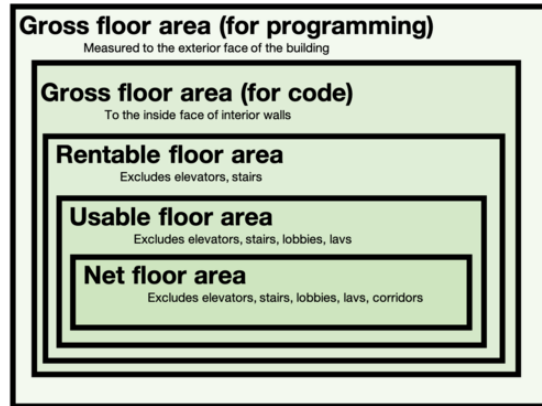


Figure 16: Differentiating GFA and NFA

Source: <https://quizlet.com/762214822/amber-pa-flash-cards/>

Fouchier argues that, at the local scale, the gross built-up area (GFA) is more relevant than the net floor area (NFA) as it captures the complete building "envelope."

The GFA includes the entire floor area, including attics, basements, balconies, loggias, and accessible rooftop terraces. On the other hand, the NFA is calculated by subtracting unattic spaces less than 1.8 meters high, technical areas for HVAC and elevators, basements and garages, balconies, loggias, accessible rooftop terraces, and non-enclosed ground floor areas from the GFA (Fouchier, 1997).

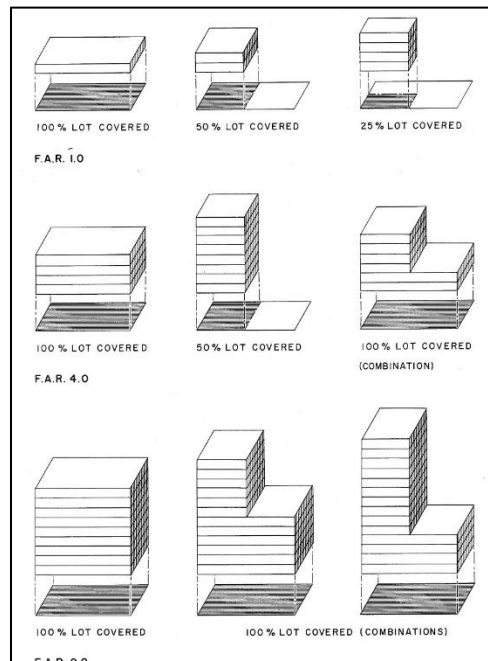


Figure 17: Modulating PCR

Source: Harold M. Lewis, 1956

Another indicator, the plot coverage ratio (PCR), represents the constructed area footprint divided by the total area. Unlike the FAR, the PCR does not consider floor areas and

primarily focuses on the construction footprint in relation to the total plot area - the land use ratio (Lacheheb, 2012).

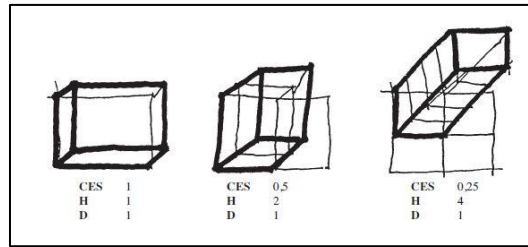


Figure 18: PCR and construction footprint
 Source: Conseil régional d'Ile de France

Frey (1999) explains that while net residential densities provide insights into the potential population accommodation within limited areas, they do not capture the broader development possibilities, as they exclude other land uses such as public spaces. For cities and regions, gross population densities, regardless of land use or open space size, offer a clearer understanding of urban development and enable better comparisons.

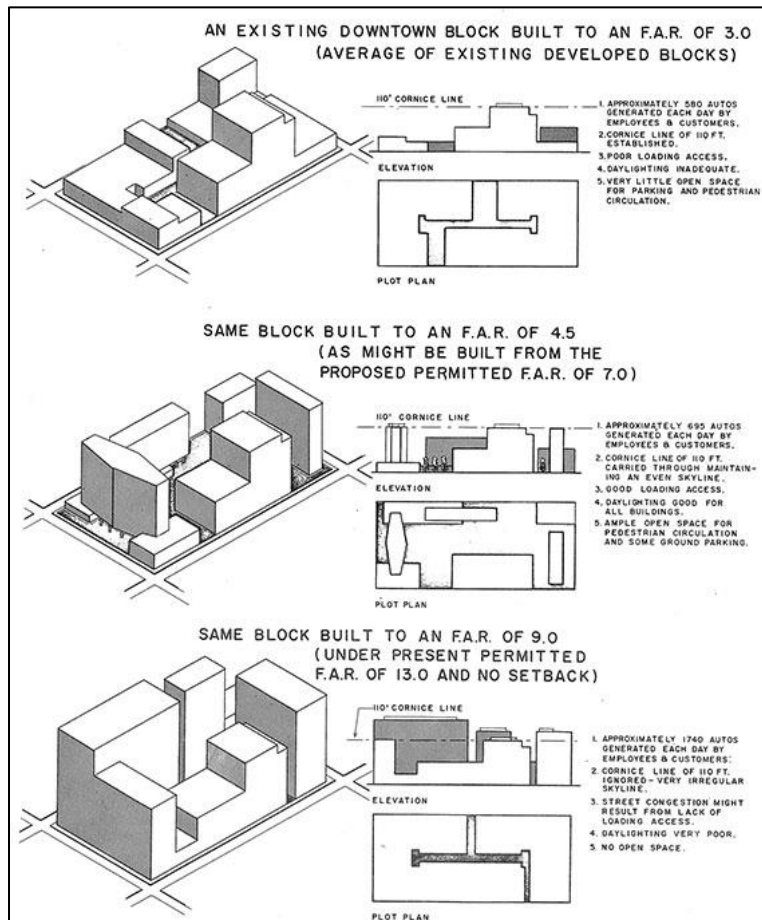


Figure 19: Differentiating Floor area
 Source: Harold M. Lewis, 1956

Lastly, the Built-Up Density serves as a more holistic indicator, considering both the building distribution on the surface (using PCR) and in the volumetric space (using average height). Hence, the pivotal importance of adding qualifiers such as inhabitants, buildings, or housing to the concept density, to avoid equivocal and ensure meaningful discussions. For instance, describing density as high or low is reductive binary qualification.

In conclusion, encompassing various indicators and regulatory tools such as the FAR/BCR, PCR, GFA, NFA, and Built-Up Density is required for a better understanding of density. A plethora of factors to consider such as floor area, building footprint, organization and distribution of space provide insights on density into the built environment and contribute to informed decision-making in urban planning processes.

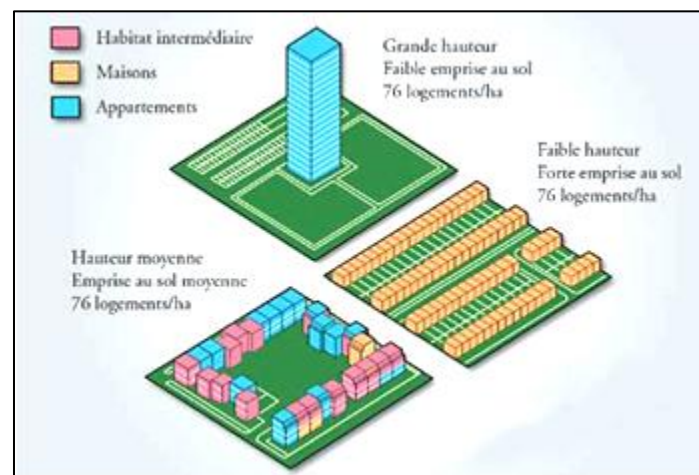


Figure 20: Modulations of Morphological Density

Source: Planning and Urbanism Institute, Understanding density, Rapid Note No.383, 2005)

Therefore, the floor area ratio (FAR) or plot coverage ratio (COS) demonstrate the potential for construction, whereas the actual built density offers a more realistic view of conditions on the ground. Mapping tools can be used to compare densities of one zone to another, or one neighborhood to another or one residential block to the other (Lacheheb, 2012)

But this is where they have their drawbacks in illustrating the variety of forms that buildings can assume and the ambiances created within urban environments as a result. However, local authorities still employ these indicators for land use supervision and configuration of the urban built environment.

There is a discrepancy in the concept and a gap between static plan and the rather dynamic nature inherent in a city under continuous transformation.

These specific density parameters involve plot coverage ratio (PCR), built-up density (BUD), density of population, density of residential and employment, human activity density, (Fouchier, 1997), regulatory top limit, and vegetation density or the green area ratio.

These indicators claim the complexity of density and therefore, is not easily measured or captured. Federal housing authority in the United States has previously designed the Land Use Intensity Rating (LIR) which was proposed in 1971 but was not implemented due to some reasons but according to Vincent Fouchier this may be used as "densitometer." However, despite its relevance, the LIR was not widely adopted in practice.

While the development of measurable density indicators is essential for establishing a common vocabulary among professionals and decision-makers, it is important to recognize that these indicators only partially transmit the full concept of density. They serve as a starting point for idea exchange and knowledge improvement in our practice, but they do not capture the entirety of the density notion.

2.1.2 Multidisciplinary Perspectives and Indicator Selection

Exploring density necessitates looking at it from through different lenses, including a variety of related fields: ecological, sociological, economic, and other pertinent fields. Each perspective offers unique insights into the concept and its implications. It is important to acknowledge that different stakeholders perceive and interact with density in distinct ways, influenced by their professional backgrounds, interests, and priorities (Beall et al., 2010; Churchman, 1999).

The qualification of density becomes crucial, given that this distinction is only one among many based on the differentiation of the vocatives used by specialists of different fields. This makes communication and understanding to be clear and makes work Proceeds more easily between the different stakeholders.

For instance, to analyze internal comfort or quality of the living area per inhabitant, architects may need to examine the plans. For instance, to analyze internal comfort or quality of the living area per inhabitant, architects may need to examine the plans. On the

other hand, we have urbanists and transport specialists, who may prioritize the number of housing units per hectare "housing or residential density" for planning at neighborhood scale. Developers and legal professional which mostly come from the architectural and planning disciplines, may estimate the CPA (Cost Per Acquisition) per LA (Local Area) for economic viability and assessment of development feasibility.

The need to be subject or context specific when comparing densities is crucial to clear and effective communication among stakeholders. The utmost importance of qualification of density is a must, it is further illustrated by the array of divergent that specialists consider according to their disciplines.

2.2 Density Limits

It is inadequate to consider density regulation alone, especially when factors such as leisure mobility, traffic flow, or addressing decarbonization and the provision of open and green spaces are counted. The establishment of consistent benchmarks and criteria, contextually bound with the scale of the urban environment is essential to address the issues arising from the concept of density.

This entails the continuous questioning of what density is, and its qualification as "density of..." while at the same time defining the criteria for measurement and establishing benchmarks. A clear distinction between "container density," which refers to the built form and "contained density," which concerns the users in a given area is highlighted by Vincent Fouchier. By so doing, a comprehensive regulation of density that address the the needs of different groups of the population with reference to prior policies and with the aim of avoiding the negative consequences of urban renewal in excessive density policy.

It is essential not to lose critical and logical thinking and to remain as objective as possible in this process requiring intellectual rigor with no manipulation of data and/or selective interpretations to fit into preconceptions. Such approach is key to ensuring objectivity in measurements and analysis while eliminating subjective biases to secure density regulations. However, reasonable density, also implies the necessity of further investigation of so called "quality principles." (Callen, 2011).

This exploration will help mitigate potential abuses and challenges associated with densification, ensuring that urban development prioritizes the expected "quality of life" and "sustainability" of the community.

2.3 Density Scales

In the analysis of density, various scales are considered, taking into account geographical areas, surface types, and selected indicators. Two key scales are distinguished based on the surface: net density and gross density.

Net density focuses on specific areas allocated for a particular purpose, while gross density encompasses the entire area without any exclusions. For example, gross residential density may include public facilities, green spaces, and infrastructure, whereas net density only considers residential areas (Lacheheb, 2012).

Lynch (1962) further distinguishes between different types of density:

- **Physical density:** relates to the built form,
- **Activity density:** which considers the intensity of human activities within a given space.

Another distinction is made between internal and external density. Internal density refers to the number of people within a residential unit, while external density pertains to the number of people within a broader spatial unit, such as a neighborhood.

Density measures can also be classified according to different spatial scales:

1. **Micro-scale density:** Focuses on the density of individual dwelling units or rooms.
2. **Meso-scale density:** Considers density at the plot or block level.
3. **Macro-scale density:** Encompasses density at the neighborhood, city, county, or country level.

In the context of densification, smaller scales are more relevant and meaningful. These include micro-scale density (room or dwelling), parcel-level/zonal density (for regulatory purposes like floor area ratio), neighborhood/island density (for planning and programming), city/region-level density (for assessing concentration and area), and national/international density (for analytical purposes by international agencies).

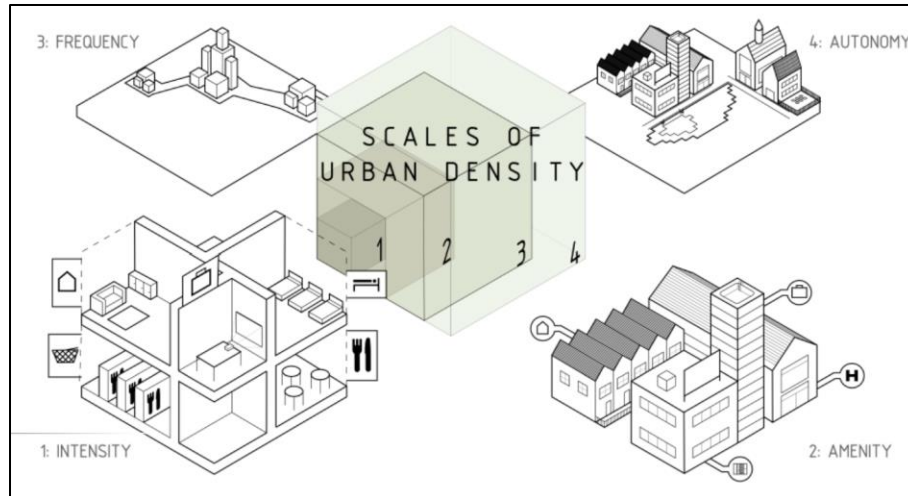


Figure 21: Scales of Urban Density

Source:(P. Clarke, 2007)

Fouchier (1997) distinguishes between "contained" density, which includes population, human, and social density related to users such as inhabitants, clients, and employees, and "container" density, which focuses on construction density and the physical environment. Measures of container density include floor area, habitable area, site coverage, and floor area ratio (Fouchier, 1997).

By considering density at various scales and differentiating between contained and container density, a more comprehensive understanding of the concept can be achieved.

2.4 Quality Density

Density is a measure that compares a quantity or statistical indicator to the occupied space. However, its measurement takes on various forms, which makes it challenging to compare across different countries due to differences in the numerators and denominators used. Additionally, density measures are influenced by different measurement systems and units, such as square meters, acres, and hectares.

Density encompasses different phenomena, including population or human density, which measures the number of people per unit area. Residential density calculates the number of housing units, dwellings, habitable rooms, or beds per unit area. Construction density, built-up density, or site coverage ratio captures the floor area of buildings in relation to the total site area (Lacheheb, 2012).

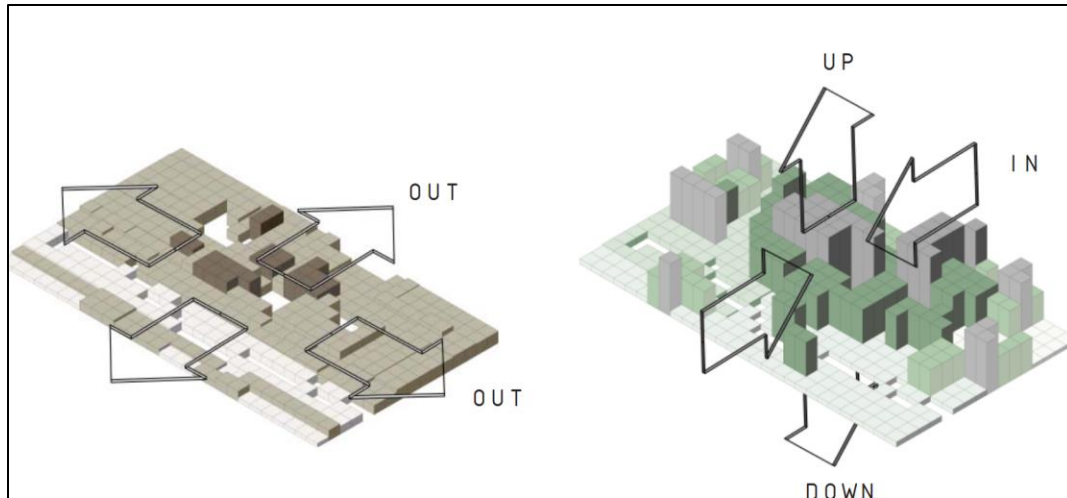


Figure 22: Multidirectional comprehensive density
 Source: (P. Clarke, 2007)

Furthermore, it is important to note that these different density measures do not always correlate. As demonstrated by Fouchier (1997) through figures, identical floor area ratios (FARs) can result in different building coverage ratio (BCR or COS) values (Figure 10). This means that different urban forms can achieve the same population density.

2.4.1 Physical Density

Urban forms can vary significantly despite having identical construction densities. Similarly, matching densities and forms may represent different qualitative contexts. Physical density encompasses both quantifiable data and qualitative criteria, including aspects such as form/scale diversity, building heights/details, and the presence of landscapes (Alexander, 1987; Fouchier, 1997).

Qualitative elements, which cannot be precisely measured, contribute to physical density. For example, low-density suburban houses may still feel dense due to poor alignment or visibility, despite meeting regulatory requirements.

Perceived density also depends on the contrasting environments in which identical densities, forms, and site coverage ratios (COS) are found. Factors such as the presence of a beautiful green space or a motorway junction can significantly influence the perception of density (Fouchier, 1997). Fouchier illustrates this point by presenting examples of identical tower densities, morphology, and floor area ratios (FAR) in different settings (Figure 16).

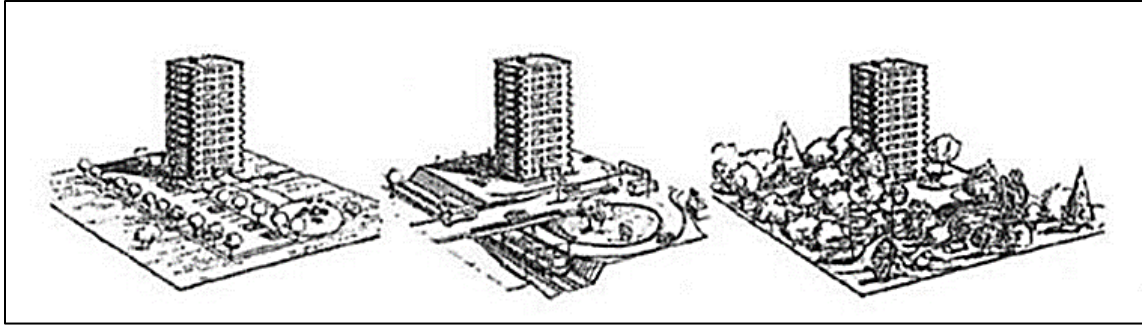


Figure 23: Perceived density according to surrounding factors

Source: Dense, Cité, as cited by Vincent Fouchier

For the same physical density, perception is likely to change according to the surrounding environment.

Another important qualitative criterion is the role of greenery, referred to as vegetative density. Vegetation density can be remotely detected using satellite images to identify the volume and quality of plant cover. This environmental indicator encompasses all vegetation, both public and private, that shapes the overall ambiance of a place (Moulinié & Naudin-Adam, 2005). Fouchier explores the concept of vegetative site coverage by presenting examples of identical housing with equal FAR, COS, and green space coverage but varying vegetation (Figure 17). The presence and quality of green settings intuitively affect density perception and quality.

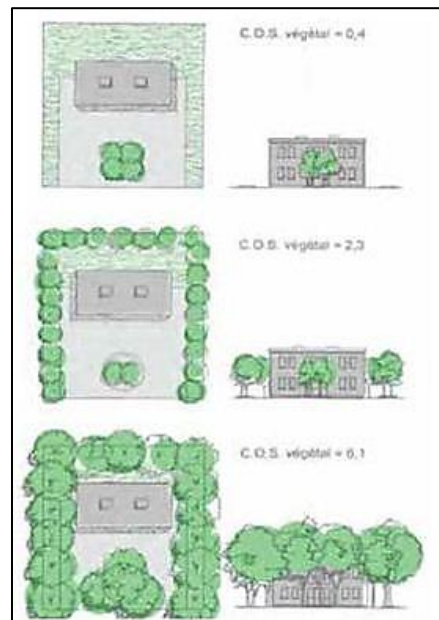


Figure 24: Varying Green Area Ratios for Constant Building Coverage Ratio

Source: Dense, Cité, as cited by Vincent Fouchier

In conclusion, Fouchier raises the question of whether qualitative situational factors are more decisive than quantitative ones in both physical and social settings (1997). Alexander (1987) also emphasizes the importance of considering qualitative aspects of physical density, suggesting that they warrant equal attention in research, planning, and design.

2.5 "Quality Density" Outcomes

The concept of "quality density" in urban planning has several positive outcomes, as supported by various studies. These outcomes include:

1. **Meeting housing demand for denser areas:** Quality density addresses the increasing demand for housing in urban areas by utilizing space more efficiently.
2. **Enhancing human exchange and interactions:** Higher density fosters a dynamic environment that encourages social interactions, acceptance, integration, tolerance, and social cohesion among diverse populations.
3. **Improving service provision:** Higher density enables the provision of better and more efficient public services, such as transportation, education, and healthcare, due to the concentration of population.
4. **Increasing municipal tax base:** Higher density leads to a larger tax base for municipalities, providing additional resources for infrastructure development and public services.
5. **Reducing travel times:** Concentrating population and activities in denser areas reduces the need for long-distance commuting, resulting in shorter travel times and less congestion on road networks.
6. **Reducing car dependency:** Increased density provides opportunities for people who are unable or unwilling to drive to rely more on public transportation, creating a more autonomous public space and reducing pollution.

2.5.1 Density and Sustainable Development

Sustainable development is a crucial objective in urban planning, aiming to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. In this context, density is no longer seen as a negative aspect to be minimized but rather as a quality to be nurtured for more sustainable urban forms. According to Fouchier (1997), understanding the implications of density for sustainable development involves considering two key components: land consumption and the presence of nature in cities, as well as the impact of transportation, particularly car usage.

Higher urban density allows for more efficient land use and reduces the encroachment on natural spaces, but excessive density can negatively impact liveability and well-being.

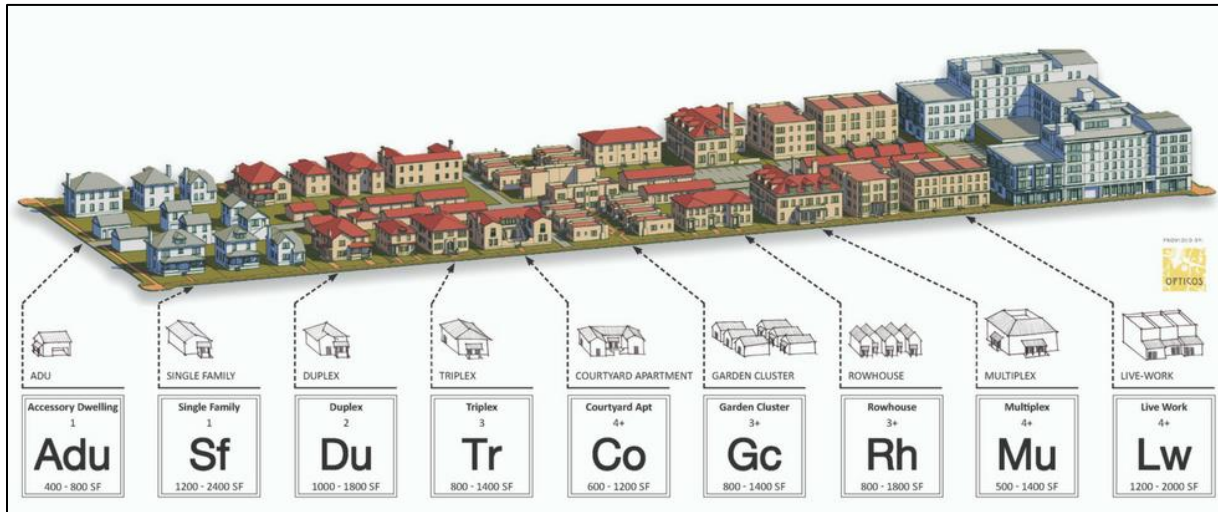


Figure 25: The missing middle density
 Source: missingmiddlehousing.com

The ideal density model for sustainable cities involves an optimization process tailored to each site's conditions to create highly liveable, economically vibrant, mixed-use neighborhoods of the future according to Lehmann (2021).

Additionally, density plays a significant role in influencing travel modes and distances, indirectly affecting energy consumption and global pollution. Fouchier's research suggests that higher urban density can reduce automobile nuisances and have a lower environmental impact on travel compared to low-density areas (Fouchier, 1997).

However, Fouchier also acknowledges that increasing density for sustainability purposes can present challenges, and travel times do not have a direct correlation with density.

Other authors, such as Frey (1999), Bentley (1999) and Cheshmehzangi (2016), emphasize the advantages of density for environmental protection and highlight the social sustainability effects on cities and regions. They argue that a reasonably high population density is essential for achieving viable local services, vibrant settlement and places, and viable public transportation (Dempsey & Jenks, 2010). balancing economic growth with environmental protection and social well-being (Berghauser Pont, 2020).

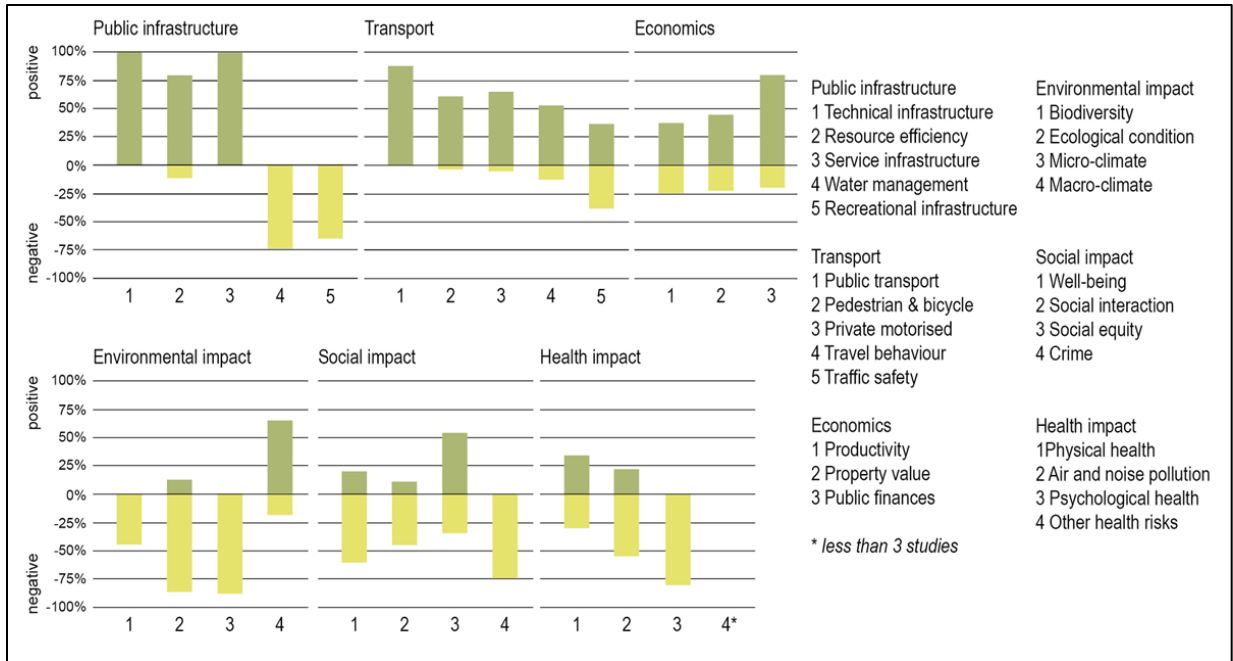


Figure 26: Found relation between density and sustainable urban development
 Source: (Berghauser Pont, 2020)

In summary, adopting compact or concentrated urban forms through quality density can contribute to sustainable development by maximizing land use, preserving natural spaces, reducing environmental impacts, and fostering vibrant and socially sustainable communities.

2.5.2 Sustainability of Urban Forms

Urban sustainability advocates argue that compact urban forms are more sustainable due to their ability to reduce travel distances, promote and optimize public transportation, and conserve natural and agricultural land. One approach to measuring the sustainability of urban forms is by considering the distance between residential areas and employment hubs. This measure captures three key components: residential density, compactness of the built environment, and the energy expended in travel across different modes of transportation (Mangin, 2004; Newman & Kenworthy, 1999). This ideal compact form aligns with traditional urban geography models found in textbooks.

Classical urban theory is rooted in the concept of the central business district (CBD) and the competitive nature of land use and the rent system. The land rent gradient, which describes the variation in land values based on location, evolves not only spatially but also hierarchically, reflecting different types of activities and social differentiation in residential

areas. Several urban structure models acknowledge the relationship between increasing urban densities and the distance from city centers (Arnold et al., 1977).

2.5.3 Qualities of Form (Containers) - Kevin Lynch

According to Kevin Lynch, urban composition can be categorized based on several qualities of form. These qualities contribute to the overall perception and experience of the urban environment. The categories identified by Lynch include:

1. **Silhouette uniqueness or clarity:** This refers to the distinct and easily recognizable boundaries and enclosed spaces that create contrast within the urban landscape.
2. **Form simplicity:** Despite the complex nature of urban realities, observers tend to simplify and perceive them as more straightforward forms.
3. **Continuity of boundaries:** The presence of rhythmic intervals, consistent materials, and signs helps reinforce the perception of complex realities within the urban environment.
4. **Dominance of certain elements:** When a specific tower or activity stands out, it simplifies the overall image of the urban landscape.
5. **Clarity of connections:** Arranging connection pathways and roads strategically, enhances a sense of direction and eases orientation within the city.
6. **Directional differentiation:** A clear differentiation between directions would help users define their location within an urban entity according to landmarks whether in downtown, suburban, rural or coastal areas.
7. **Field of vision:** To allow a more comprehensive perception of density, panoramic views, and rows of overlapping buildings are elementary units of perspective, sight, or field of vision.
8. **Consciousness of movement:** Structuring the city scape by emphasizing slopes, curves, and other elements, enhances the urban experience and highlights the role of mobility.
9. **Temporal series:** Over time, landmarks and elements within the urban environment create a sense of continuity and familiarity, akin to a melodic series.
10. **Names and meanings:** Non-physical traits, such as names and symbolic meanings associated with certain places, contribute to reinforcing the identity and character of the urban environment.

3. Complexity in Perceiving Densities

Perceived density is influenced by various factors and can be examined from different reference scales. Conducting surveys can help unravel the multitude of factors that contribute to density perception, thus making the survey method valuable in understanding density perceptions.

It is important to differentiate between evaluating density from the perspective of inhabitants and their acceptance of it. A neighborhood that is perceived as relatively dense may not necessarily be rejected by its inhabitants.

Goodchild (1994) emphasizes the significance of density and land use intensity, but also highlights the importance of residential layout and broader strategies related to urban form. He suggests that density should be considered alongside these factors in detailed planning. Goodchild's stance aligns with Fouchier's nuanced approach, advocating for the highest possible densities where feasible, especially filling gaps in the urban fabric.

Frey (1999) also supports linking density to urban and residential models. He suggests that high-density housing can be socially acceptable to middle- and higher-income groups if it provides the same quality of living as rural areas, along with good access to a range of local services and facilities.

3.1 Subjectivity and Relativity of Perceived Density

Perceived density, although not based on a physical or measured reality, significantly influences the acceptance or rejection of density in urban planning debates. It is a subjective notion that is often associated with concentration or overcrowding, leading to diverse perspectives on density.

V. Fouchier identifies two dimensions of perceived density:

- **Social perceived density:** relates to the perception of many people's presence in a space.
- **Non-social perceived density:** focuses on the perception of the built environment regardless of human presence (e.g., buildings appearing close together).

Density perception is influenced by qualitative factors such as orientation, layout of private gardens, and contrasting elements. Additionally, the interpretation of "high" or "low" density varies depending on whether it is considered at the neighborhood or apartment level, and individual tolerance thresholds also come into play.

An APUR "Atelier Parisien d'Urbanisme" or "Paris Urban Planning Workshop", survey comparing perceived density among residents of different Paris neighborhoods with varying actual densities highlights the complexity of density perception. The vibrancy, presence of local businesses, and welcoming spaces in traditional districts highlight the importance of neighborhood social interaction in influencing how density is perceived. These findings indicate that density is simply one component of urban space, and the concepts of "low" or "high" density are subjective and dependent on context. The concept of urban form is further complicated by multiple definitions, subjective criteria, and a lack of obvious ties to urban forms. This is particularly challenging when densification becomes an increasingly important aspect of urban development.

Rapoport (1975) reminds the usefulness of the exclusive use of density and advocates for a holistic comprehension of the interplay between physical, social, and cultural elements and the perception and assessment of density. The author introduces the notion of "affective density," which refers to the emotional intensity of density caused by the discrepancy between environmental circumstances and individual expectations, typically seen as overcrowding. Therefore, the perception and evaluation of density might vary based on individuals, situations, cultures, and nations.

Perceived density does not correspond to a physical or measurable reality but rather reflects the circumstances and perspectives of the observer. This definition emphasizes the role of the individual in the perception process.

Rapoport (1975: 134) distinguishes density from crowding, defining density as a measure of people per unit area and crowding as a negative perception of excessive density, characterized by a subjective experience of sensory and social overload. The subjectivity of crowding represents a qualitative, affective density experience, where density is perceived as a psychological constraint (Churchman, 1999; Fouchier, 1997).

Rapoport further explores alternative dimensions of density, including:

The role of social distances in signifying density,

The permeability of boundaries separating people and objects.

Other social relationships also affect perceived density:

- The influence of social relationships,
- spatial arrangements,

- defensive behaviors,
- the nature of the social group,
- the nature of boundaries on perceived density.

Fouchier (1997) discusses the role of personal space and territorial behaviors in perceiving density, explaining that discomfort arises when personal space boundaries are breached, leading individuals to adopt defensive measures. While the physical environment is necessary, it is insufficient for generating a feeling of crowding.

The methodologies suggested by Churchman (1999) and Fouchier (1997) were subsequently further investigated. According to Madhavi Patil (2021), the concept of "headcount" or the sheer presence of a large number of individuals in a given location does not necessarily result in a feeling of overcrowding or high population density. She examines the complex nature of density perceptions, specifically investigating the interaction between physical dimensions and user experience (Patil, 2023). Additionally, Patil examines the subjective interpretations of 'high' and 'low' density, offering insights into the ways in which these perceptions influence decisions made in urban planning.

This sophisticated methodology emphasizes that the subjective perception of density as either 'high' or 'low' is influenced not only by urban features such as tall structures or narrow roads, but also by the social environment, which encompasses variables such as crowd magnitude and ethnic heterogeneity. These findings greatly improved our comprehension of perceived density, revealing the complex relationship between physical settings and social dynamics in urban areas. However, additional research is required to combine the physical and social aspects in order to obtain a comprehensive understanding of how individuals perceive and react to urban environments.

3.2 Considering Contents in Defining and Assessing Densities

In a survey-based study by the previously mentioned Parisian urban planning organization APUR, most participants characterize urban density as the presence of large number of people or inhabitants, occasionally, housing within a specific area. A dense city is perceived as having "too many people," with inhabitants feeling as if they are "on top of each other." When it comes to buildings and residents, a dense building is one that accommodates numerous dwellings. The concept of density is more closely associated with population (inhabitants, traffic, housing) than with the buildings themselves.

Consequently, "social perceived density," based on the perception of a high number of people in an area, tends to take precedence over "non-social perceived density," which focuses purely on physical considerations.

Occasionally, respondents also cite both population and built density as defining characteristics of density, indicating that the ratio of houses/constructions to occupied land sporadically conditions perceived density. Furthermore, some individuals associate density with feelings of "suffocation" and "compression." Despite this, a population density indicator, usually combined with residential density, emerges as the intuitive classification metric for inhabitants.

This observation highlights two key points:

Firstly, contrary to common assumptions in many studies, so-called objective indicators like population or residential density do not appear to be entirely disconnected from perceptions.

Secondly, it becomes evident that content indicators (as opposed to containers) hold greater significance for inhabitants, even though feelings of suffocation and compression are more closely related to built density as a container indicator.

However, the question arises:

If individuals intuitively assess and appreciate density based on quantifiable data consistent with indicators enabling objective measurement, why do some inhabitant remarks not align? When asked to compare the density of their own development to that of large housing project neighborhoods using a 1-10 scale, morphological aspects play a significant role in these assessments.

Further discussions with inhabitants provide additional explanation. The number of apartments and thus inhabitants per building predominantly influences perceptions of program density. Consequently, density appreciation by individuals appears to be closely tied to content elements such as the number of inhabitants and housing but is considered not on a per-hectare basis, but at the much smaller scale of individual constructions. This is particularly relevant when housing access is individualized, as personal access significantly reduces perceived crowding by limiting exposure to neighbors.

One hypothesis is that beyond objective densities, additional parameters such as cultural representations and urban forms influence perceptions, as will be discussed next.

3.3 Containers and Urban Form Design

Continuing the discussion on the example of the Villas in the second development, it is pertinent to consider how various factors influence density perceptions, particularly the 'container' elements such as the built fabric and overall exterior morphology.

The architect's characterization of the Villas in the second development as representing horizontal density in the form of terraced houses over four to five rows underscores the significance of the exterior built dimension in defining the development's density. Morphological parameters play a crucial role in how residents perceive a project's density. Additionally, the narrowness and proximity between housing rows, in relation to land coverage, also contribute to shaping perceptions of density. Moreover, building height, in conjunction with other parameters, contributes to the negative associations with high-rise housing estates, which undoubtedly influence some residents' density judgments.

The interplay between objective density indicators (content and container-related) and subjective ones is notable. The complexity also arises from the cultural dimension of perceptions and representations of density. For instance, in the case of housing estates, socially ingrained notions of anonymity and promiscuity influence density perceptions. Fouchier (1997) emphasizes the cultural dimension of the relationship between personal space and density, highlighting that personal space and territoriality are mechanisms that enable desired proximity without overcrowding, thereby maintaining sufficient and comfortable interpersonal distance. The infringement of personal space gives rise to a sense of high social density.

Understanding population perceptions of density is crucial for studying the citizen-density link, which involves analyzing how individuals perceive and experience urban spaces and living environments. Urban planning endeavors to shape living environments in a manner that enhances quality of life and comfort. However, as Wiel (2005) points out, the subjective appreciation of comfort depends as much on the practice of a place as the place itself, if not the person (Wiel, 2005). Ultimately, lifestyles and urban quality interact with personal connections to space in rendering density either stimulating or oppressive.

4. Psychosociological Aspects of Density

Even in identical housing and neighborhoods, individual trajectories can lead to diverse psychosocial density experiences. Factors such as age, gender, and sociocultural background contribute significantly to these experiences. Elderly residents often have more specific expectations, while children tend to accept parental decisions. Furthermore, gendered spatial practices differ among individuals.

Fouchier outlines four other influencing factors:

- **Local scale:** Individuals judge their immediate settings less critically than collective, public ones.
- **Degree of freedom:** Potential spatial conflicts rise with density, and cooperation enables the acceptance of higher densities unlike competition. Family members spatially accommodate better than strangers.
- **Exposure time:** Personal history and adapting ability matter, including gradually habituating to high density.
- **Cultural references:** National, regional, and other identity markers shape density judgments.

Rapoport (1975) and Fouchier (1997) also highlight physical and social variables such as intimacy, insider/outsider presence, nuisance, stigma, smells, noise, lighting, ventilation, public-private boundaries, and hierarchical, predictable behavioral norms.

In brief, perceived density reflects multiple physical and social environmental components, of which measurable density is but one element. This multifaceted nature raises the question of whether the density concept is too complex to be entirely objective (Fouchier, 1997).

5. Controversy Over Density and Actor Discourses

The controversy surrounding density, densification, and actor discourses has been extensively examined by various authors (Churchman, 1999; Frey, 2003; Goodchild, 1994), who have explored the environmental aspects while acknowledging the significance of other factors (Lehmann, 2016). Recent scholars have further delved into the nuanced and subjective nature of density and actor discourses (Herdt, 2023; Matillana Díaz, 2023) and have investigated the trade-offs associated with densification and environmental considerations (Berghauser Pont et al., 2022; Bibri et al., 2020).

Urban densification, as an approach to address the challenges of sustainable, post-carbon cities amidst growth and sprawl, is a priority (Beaucire, 2006). Unlike dispersed cities, compact cities are characterized by functional diversity, incorporating housing, employment, activities, amenities, and services. This approach aims to reduce travel distances, decrease reliance on automobiles, and promote the use of shared transportation. Densification also serves as a response to the significant housing crisis currently being faced.

The lack of new housing and difficulties in accessing housing create favorable conditions for urban densification, particularly in dense areas. This trend leads to a concentration of residents in urban centers, where functional diversity is more pronounced, and contributes to population growth and increased land pressure in densely populated cities. However, this densification process also exerts exclusionary pressure on the middle classes, pushing them towards the periphery, and contributes to gentrification in intermediate cities (Cavicchia, 2023; Teller, 2021).

The benefits of densification, as cited in the literature, include curbing urban development sprawl, preserving countryside, promoting clearer urban identities, enabling economic innovation, reducing energy consumption, and supporting public transit. However, compact urban forms also present risks, such as the loss of privacy, trade-offs between open space and adequate accommodation for automobiles, and the potential for unrealism when pursued to extremes (Day, 2000).

The literature emphasizes that density can confer sustainability and environmental advantages, as well as enrich social interactions. However, the impacts of density are modulated by various factors, including planning and design, the presence of greenery, and resulting urban forms (Lehmann, 2016). It is important to consider the relationship between density and built form, as density alone is of little importance without considering specific facts and figures (Scoffham & Vale, 2021). Higher density can bring about environmental and energy gains, social benefits through concentrated development and mixed uses, as well as improved accessibility and mobility while reducing traffic (Churchman, 1999; Frey, 2003).

However, beyond certain thresholds, the advantages of concentration can turn into disadvantages. Saturated open spaces may lead to environmental quality losses, pollution

levels may rise, real estate prices can increase, and social segregation and spatial conflicts may intensify (Holden, 2004).

Different disciplinary perspectives analyze density based on their respective value systems (Lehmann, 2016):

- **Ecologists** focus on public health, living quality, public spaces, and preserving rural areas in their sustainability-focused approach.
- **Psychologists and sociologists** examine social density, considering demographic and physical contextualized behaviors and inter-group relations.
- **Economists and legal experts** are concerned with land values and rights, with the Floor Space Index playing a significant role.
- **Urbanists** focus on built fabric typomorphology, urban form, public space quality and continuity, ambience, and cityscapes.

6. Perceptions of Density and Densification in the Collective Imagery

Collective imagery often links density and densification with social dysfunctions and negative representations, such as "concretization," housing estates, segregation, urban violence, promiscuity, neighborhood conflicts, precarity, and the presence of foreigners. These perceptions contribute to a negative view of density in society.

However, it is important to note that the negative connotations associated with density are often based on traditional metrics and do not necessarily reflect the reality. For example, housing estates, which are often seen as problematic, actually have lower densities compared to historical districts. This suggests that other factors, such as design, planning, and social dynamics, play a significant role in the problems associated with these areas.

The negative imagery surrounding density is not without grounds, as it reflects the failures of past urbanism in creating sustainable, high-quality living spaces with appropriate densities. This highlights the need for a more holistic approach to density and densification, one that takes into account factors beyond mere numerical metrics.

7. Density and Regulation

In Algerian regulations, density considerations hold a significant place in future urban production, as reflected in various laws, decrees, and guidelines. The specific interest in density is evident in the rules governing production and spatial organization. Legislators

and urban planning agencies emphasize the importance of the environment, preservation of natural areas, rationalizing land consumption, and safeguarding cultural heritage. The aim is to effectively manage growth through density controls.

The 1990 Urban Planning Law (*Loi-90-29 Relative a l'aménagement et a l'urbanisme*, 1990) addresses density considerations in its Article 1, which outlines the principles of the law. These principles focus on establishing general rules for organizing the production of developable land, managing the formation and transformation of the built fabric, and achieving a balance between habitat, agriculture, and industry functions.

Additionally, the law emphasizes the preservation of the environment, natural areas, landscapes, and cultural and historical heritage.

- Building heights are capped according to Article 6 of the law,
- Spacing specifications (§2 or section 2), setbacks and density are addressed in (Article 23) of the General Urban Planning Rules and Regulations document. It is worth noting that southern Algeria is exempted from these regulations to account for contextual alignment.
- Article 26, within §3, directly references density, stating that the maximum permissible built density on urbanized commune lands is represented by the ratio between total constructed area and plot area, also known as the Floor Space Index (FSI), which is set at 1.

This creates a paradox between Article 26 and the general principles of Law 90-29, which advocate for rationalized land consumption while setting the FSI at 1.

Planning instruments, such as the National Agenda 21 Local Development Plan Decree executive guidelines, further ensure harmonious exteriors and quality through subdivision regulations.

For individual housing, different FSI and Ground Space Index (GSI) values are specified for each zone, as outlined in Table 1. It is important to note that exceeding the GSI and FSI values is only allowed for landmark or corner buildings, and there are no FSI limits for industrial or warehousing zones.

The values mentioned in Table 1 correspond to different situations within each homogeneous zone, including existing fabric, restructuring, and empty sites.

*Table 1: Different GSI and FSI values by zone
Source: Local Development Plan Data (PDAU)*

Homogeneous Zones	FSI		GSI	
	min	max	min	max
High-Density Residential Area				
Case 1	/	FSI maintained	/	GSI maintained
Case 2	/	0.4	/	2
Case 3	/	0.5	/	2.5
Case 4	/	0.5	/	2.5
Low-Density Residential Area				
Case 1	/	0.2	/	0.6
Case 2	/	0.4	/	1
Case 3	/	0.5	/	1.5
Case 4	/	0.5	/	1
Case 5	/	0.5	/	1.5
Historical Fabric	FSI and GSI are to be defined in the specifications according to the cases			
Centrality				
Case 1	/	FSI maintained	/	GSI maintained
Case 2	/	0.5	/	3
Case 3	/	0.5	/	3
Case 4	/	1	/	6
Case 5	/	1	/	6
Mixed Commercial	/	0.5	/	1.5
Industries, Warehouses	/	0.5	/	1.5
Equipment	/	/	/	/
Green Spaces and Recreation	/	/	/	/
Transportation-Related Functions Space	/	/	/	/

It is crucial to consider the specific cases and varying circumstances within each homogeneous zone when interpreting the mentioned values. These include the presence of existing fabric, restructuring efforts, and vacant sites.

Regulations in Algeria establish density values based on land occupancy measured through Floor Space Index (FSI) and Ground Space Index (GSI) in different zones. However, other metrics, such as the number of housing units per inhabitant or the population density per hectare, are not explicitly addressed.

Chapter III of the National Agenda 21 decree provides detailed calculations for FSI and GSI. The 1990 Land Management Orientation Law (*Loi N° 90-25 Relative a l'orientation Foncière*, 1990) includes sections that pertain to developable lands, while Legislative Decree (*Decret 94-07 Relatif Aux Conditions de La Production Architecturale et à l'exercice de La Profession d'architecte*, 1994) focuses on architectural production and the regulation of the architect profession. This decree imposes fines for non-compliance with density parameters and mandates their inclusion in building permits.

In October 1996, six years after the Land Law was enacted, Ministerial Guidelines 007 and 008 were introduced.

- Guideline 007 emphasized the need for rational urban land use
- Guideline 008 specified social housing requirements that advocated densification while respecting land rights in order to optimize potential.

Algeria's approach to "pragmatic new urbanism" has witnessed the unsustainable consumption of scarce and non-renewable urban land, resulting in hasty sprawl. Private developers often prioritize financial viability over creating landscaped settings with ample greenery, despite marketing promises.

Although there are extensive land and planning regulations in place, the integration of density remains a complex issue, characterized by ambiguous programming, design, financing, execution, and management processes. The legislative approach has focused on substantive regulations, driven by time constraints, which contrasts with the procedural aspects of implementation. As the state reassumes a prominent role, it marks a shift away from an era where the urban landscape was primarily driven by industrialization motives, followed by housing policies, and later social initiatives constrained by master plans.

8. Conclusion:

The concepts of density and densification play significant roles in shaping urban environments and influencing urban development. Throughout this chapter, we have explored the multifaceted nature of density and the process of densification, highlighting their importance in effective land management, sustainable urban growth, and the creation of livable cities.

Density, whether referring to population or development, provides a multitude of advantages. It promotes dynamic streets, active neighborhoods, and proximity to a range of amenities, cultivating a feeling of energy and friendly closeness. These sociocultural factors draw people to densely populated locations, creating research avenues for studying the changing attitudes towards urban and residential density. This includes examining how intimacy and security influence the impression of living quality.

Nevertheless, it is critical to acknowledge the intricacies, controversies and disputed areas that emerge during the process of densification, and it is crucial to strike a balance between top-down directives of order and expansion with bottom-up organic augmentations motivated by community sustainability. Merely depending on statistics is insufficient to fully understand the qualitative elements of demolishing thriving habitats or the consequences of excluding certain markets in the creation of new landscapes. It is crucial to have a holistic governance that effectively manages investment flows and incorporates participatory housing projects in sustainable neighborhoods in order to promote healing rather than causing harm.

It is crucial to analyze the quality of housing and the level of satisfaction among residents in high density areas. This analysis should consider aspects such as the appearance of the buildings, conformity to regulations, and neighborhood-specific indicators. The study focuses on the relationship between neighborhood physical and social infrastructure, and also on the effects of uncoordinated densification and regulatory non-compliance on the architectural and urban quality at the neighborhood, block and plot level. The findings offer useful insights for enhancing the urban renewal initiatives and quality of life in pericentral neighborhoods of Setif.

Chapter Four (04)

Maturation Process of Urban Renewal

1. Introduction:

Various factors and challenges influenced the process of urban renewal evolving over time, shaping and reshaping its maturity (Couch, 1990; Hyra, 2008; B. Zhang et al., 2023; Zheng et al., 2014). Urban renewal, sometimes referred to as urban regeneration or revitalization, has been an integral component of urban development for decades. It involves the revitalization of urban areas to improve the quality of life for residents and create a more sustainable and vibrant community (Couch et al., 2003). Throughout history, urban renewal has faced a range of challenges, including socio-economic disparities, community resistance, and the need for thoughtful urban planning. While the concept is applicable worldwide, the approaches and challenges faced in the Western world differ significantly from those in the developing world (Chukwunwike et al., 2017). Despite these challenges, urban renewal continues to be an important tool for creating thriving urban environments. In this chapter, we will explore the maturation of urban renewal, tracing its evolution and discussing its impact on contemporary urban landscapes. We also aim to explore the contrasting aspects of contemporary urban renewal in the West and the developing world, highlighting the underlying factors that shape these processes.

2. Urban Renewal: Connotation and Evolution of the Concept

The concept of urban renewal has undergone significant evolution and carries specific connotations within the realm of urban planning and development. Over time, the understanding and application of urban renewal have evolved, leading to changes in its conceptualization and associated practices. This section explores the connotation and evolution of the concept of urban renewal.

3. From Punctual Intervention on Existing Fabrics to Urban Renewal: Definition and General Framework

The term "urban renewal" emerged in the 1990s, signifying a shift from previously used analogous terms such as renovation, reconstruction, recycling, rehabilitation, and restructuring. This transition prompts an exploration of whether it represents a mere change in vocabulary or a fundamental shift in orientation, design, and new practices.

3.1 Interventions on Existing Fabrics

3.1.1 Rehabilitation:

Rehabilitation, as defined by the dictionary of urban planning and development, encompasses a set of works on a piecemeal basis over many years, aimed at transforming premises, buildings, or neighborhoods to make them suitable for housing in satisfactory conditions of comfort and habitability. This process of repairing and improving involves ensuring the long-term restoration of the structure while preserving the major architectural features of the buildings (Couch, 1990; Merlin & Choay, 1988; Tallon, 2013).

3.1.2 Renovation / Urban Renewal:

Renovation, derived from the Latin "Renovatio," denotes the action of renewing something through profound transformations. In the context of urban planning and development, it represents an overall operation concerning most or all of the built environment of an area. Motivations for renovation may stem from the poor quality of buildings, their inadequacy, insufficient land use density, or their unsuitability for car traffic. This action involves deep intervention on the urban fabric, potentially including the demolition of dilapidated buildings and the construction of new buildings on the same site (Merlin & Choay, 1988).

3.1.3 Urban Renewal:

Urban renewal is a generic term encompassing any operation aimed at adapting buildings to contemporary standards. This ranges from systematic demolition (bulldozer renovation) with the intention of new construction in areas occupied by housing, activities, or a mix of both, to considering the inhabitants and their habitat (gentle renovation) (Jouret, 1981). In French urban planning law, it is defined as an operation aimed at restoring degraded old urban centers due to lack of maintenance or anarchic constructions, ensuring a structure and architecture compatible with hygiene and aesthetics (Danan & Jacquignon, 1978).

Understanding the nuances of these terms is essential for effectively navigating the landscape of urban renewal and its associated interventions.

3.1.4 Restructuring / Urban Restructuring:

Restructuring involves introducing a new configuration to an urban entity, resulting in a remodeling of both its layout and built environment. This operation entails a radical change in a relatively large urban space (Saïdouni, 2001). It encompasses interventions on

roads, various networks, and the implementation of new facilities. Partial demolition of blocks and alterations in the neighborhood's characteristics, such as activity transfers and building reassignments, may also be part of the restructuring process (Tiesdell et al., 1996).

Consequently, it can be argued that what is now referred to as "urban renewal" has previously been undertaken under different names. The terminology employed signifies both a return and an evolution, sometimes even a revolution, in approaches to intervening in the inherited urban fabric. A plethora of terms such as renovation, requalification, rehabilitation, reconquest, regeneration, and repair have been used to describe the process of upgrading the physical environment of towns and cities each reflecting specific urban policies and adapted procedures, sometimes contradictory to one another. As a result, the effects on the city appear selective and heterogeneous (Roberts et al., 2000). What is required is an overview, an integrated perspective in a unifying concept that takes into account the treatment of overall urban areas (Roberts et al., 2000; Saïdouni, 2001). By acknowledging the diverse terminology and approaches, urban planning and development can benefit from a holistic and comprehensive understanding of urban renewal, enabling more effective and cohesive strategies for urban transformation.

3.2 Urban Renewal: An Emerging Concept

The concept of urban renewal encompasses the idea of a fresh beginning or improvement after a period of interruption or stagnation. According to the Oxford Dictionary (2010), renewal involves a situation where something starts again or is replaced, improved, or made more successful. In the context of the city, the prefix "re" signifies the rebuilding of the city upon itself, reflecting the evolution of the urban environment through the reconstruction and recycling of its built resources.

Andres Duany and Elizabeth Plater-Zyberk (1994) recall the innate ability and explain it through the lens of city's auto-rejuvenation by leveraging its own strengths, employing tailored urban planning strategies, and mobilizing its residents on a neighborhood-by-neighborhood basis (Duany & Plater-Zyberk, 1994).

Sylvie Harburger emphasizes during the GRIDAUH-GRALE seminar on March 26, 2002, that this global phenomenon called urban renewal is characterized as a need for coordinated actions in urban sectors facing concerns and requiring responsive interventions from public authorities. The same year, Olivier Piron insisted on actions

coordination and defines urban renewal as a process of real estate mutation that involves the initial urban structure and the implementation of specific, profound, and coordinated actions (Piron, 2002). It does not necessarily require large-scale and expensive relocation efforts but rather targeted actions that contribute to the reconquest of all city territories by its citizens. Effective coordination and consultation among different stakeholders at various scales are crucial for the success of this transformative endeavor (Piron, 2002).

Sylvaine Le Garrec discusses the evolution of the concept of urban renewal, examining how it has become an all-encompassing term (Le Garrec, 2006).

The city's growth and evolution occur through mutations in the urban fabric, such as demolition and reconstruction, the reuse of heritage structures, or the development of urban or industrial wastelands. These transformations contribute to the production and reproduction of the city. Urban renewal does not aim to introduce a completely new conception of the city but rather seeks to manage and improve existing urban spaces. Although the concept of urban renewal is widely incorporated into public policies, its definition remains challenging to grasp, often characterized as a catch-all notion "umbrella concept" with ambiguous and vague content (Couch et al., 2003; Tallon, 2013). To clarify the objectives and issues associated with urban renewal, it is important to provide a specific framework. More referred to as urban regeneration in the UK context, Andrew Tallon views it as a comprehensive and integrated vision and action, resolving urban problems towards a lasting improvement in economic, physical, social, and environmental conditions of neighborhoods affected by urban devaluation processes, a more balanced city that promotes fairness in appearance and use for all. He also underlines the collaboration among various stakeholders including government bodies, private sector participants, and the local community, emphasizing the need for a strategic approach to urban regeneration, careful of the unique context of each urban area undergoing regeneration, suggesting that tailored solutions and improved urban management are prerequisite to meet specific local needs and opportunities.

It addresses the questions of expanding cities and their impact on the overall urban landscape, as well as the requalification and re-development and re-population of existing urban areas.

By understanding the evolving concept and principles of urban renewal, urban planners and policymakers can adopt more inclusive and participatory approaches to urban transformation.

3.3 The Multifaceted Nature of Urban Renewal Actions

The distinction between urban renewal and other interventions on the existing fabric lies in its size and complexity (Piron, 2002). Unlike conventional interventions that focus on modernization and improvement, urban renewal involves the rebuilding of the city upon itself, aiming for an increase in urban intensity, activity, diversity, and value (Roberts et al., 2000). It encompasses multiple dimensions, including political, economic, social, and urban aspects, requiring diverse professional expertise.

Punctual interventions have their limitations, leading to a shift towards more comprehensive actions inherent in urban renewal. These actions address the complexity of urban settings and aim to transform and revitalize urban areas on a broader scale, considering the interconnections and interdependencies among various components of the city (Healey, 2006).

4. Old realities and new concerns of Urban Renewal

The practice of urban renewal, characterized by varying levels of intensity, has witnessed different implementation methods over time. Two main formulas, spontaneous renewal and planned renewal, coexist in the present day (Tallon, 2013). These formulas reflect two morphogenetic conceptions of the city.

Spontaneous renewal, rooted in the systemic perspective, emphasizes the self-organized nature of the urban system. It views the city as a complex organism emerging from individual actions of agents within society. In contrast, planned renewal follows a Cartesian approach, conceiving the creation and evolution of the city as a rational construction guided by societal regulations that limit individual agency. The spatial forms resulting from these different processes exhibit distinct characteristics, underscoring the importance of analyzing and understanding them (Tallon, 2013).

4.1 Mapping Spontaneous Versus Regulated Reconstruction Globally

In the aftermath of devastating events such as natural disasters, conflicts, or urban decay, the need for reconstruction arises to restore and revitalize affected areas. However, the approaches to reconstruction can vary significantly, ranging from spontaneous and organic processes to regulated and planned interventions. This chapter aims to explore the contrasting strategies of spontaneous versus regulated reconstruction globally, highlighting the factors that shape these approaches.

Throughout history, many cities have witnessed spontaneous incremental reconstruction as a response to various factors such as limited resources, lack of central planning, and the resilience of individuals or local communities who take the initiative to rebuild and revitalize their surroundings. This approach often results in a diverse and dynamic urban fabric, with buildings and neighborhoods that reflect the unique character and identity of the community. Such type of reconstruction often emerges from the bottom-up, driven by the immediate needs and resources available to the affected population. Examples of spontaneous reconstruction can be found in informal settlements, where residents construct and expand their homes without formal planning regulations (Davis, 2004).

On the other hand, regulated reconstruction involves top-down planning and intervention by governments and authorities. This approach aims to impose order and control over the reconstruction process, ensuring compliance with urban planning regulations and long-term development goals. Regulated reconstruction often occurs in response to large-scale events like wars, where comprehensive planning and coordination are required (Davis, 2004; Tallon, 2013).

4.1.1 Unplanned “Spontaneous” dynamics of Urban Renewal:

Urban renewal is not a new phenomenon in terms of action on the city. The reconstruction of the city upon itself represents a "natural" fact that has been present throughout the history of urban development. This type of renewal has been observed in all periods, leading to the replacement of buildings from earlier times with new forms through spontaneous renewal (Tallon, 2013).

Renewal, along with urban sprawl, is one of the two primary modes of city production. Before the 19th century, cities were primarily built through private initiatives driven by market forces and without significant regulatory frameworks. The introduction of urban planning laws and the intervention of public actors in city planning, such as the

transformative actions undertaken by Haussmann in Paris for health and safety purposes, marked a shift in urban development approaches (Kirkland, 2013). Private actors have historically played a fundamental role in shaping and developing cities, and spontaneous renewal remains an ongoing process influenced by market dynamics. These diffuse changes, although occurring on different scales, can be compared to the transformation of cities like New York, Chicago, Seoul, and Bangkok, where uncoordinated decisions have shaped the emergence of new cities (Angel, 2012).

In the context of urban renewal, the private sector, represented by landowners, plays a significant role in transforming the city. Public authorities have limited control over this form of renewal, as decisions regarding reconstruction or transformation lie predominantly with the landowners and financiers of the projects. Public authorities may exert some influence through normative frameworks or financial incentives, but the process remains largely autonomous, emerging from society's foundations (Fainstein, 2009).

While diffuse renewal has been practiced throughout the history of cities, it was only in the 19th century that effective procedures for grouped renewal of urban fabric by public authorities were developed, to navigate the challenges and opportunities associated with transforming and revitalizing urban areas, marking the beginning of urban renewal as a deliberate public policy intervention (Roberts et al., 2000).

4.1.2 Urban Renewal as Planned: Paris example and Post-War Reconstruction

In contrast to spontaneous or diffused renewal, planned or grouped renewal for a defined sector, or public renewal efforts within planned strategy, is a more recent form of renewal. Commissioned by Emperor Napoleon III, Georges-Eugene Haussmann's operations in Paris from 1852 onwards exemplified the most significant formula for regulated grouped renewal during this period, a radical transformation of the city's Medieval urban fabric. Overcrowded neighborhoods experienced a radical transformation, urban land consolidation, demolition of unhealthy neighborhoods, and reconstruction of modern buildings and infrastructures to create wide tree lined boulevards and restructure urban areas, improving public health, enhancing mobility, and creating a modern and orderly city. (Kirkland, 2013; Voldman & Vayssiere, 1989).

This significant project could not be accomplished without a top-down approach and political support, expropriation of private properties, significant regulatory framework,

enforcement of strict building regulations, and the displacement of thousands of residents (Christiansen, 2014).

The aftermath of major conflicts in the 20th century led to additional changes and extensions in the procedures for planned renewal. The post-World War II reconstruction, inspired by the Athens Charter, aimed to rebuild cities by breaking with the past and implementing comprehensive urban operations (Corbusier, 1957; E. P. Mumford, 2002).

The subsequent urban renewal operations, designed on the model of reconstruction, aimed to restructure city centers by modernizing them and providing modern housing conditions while adhering to the principles of the Athens Charter. These operations, defined in 1958 and incorporated into the Urban Planning Code in France, involved successive phases allowing municipalities to acquire land, demolish old buildings, rehabilitate land, and transfer serviced land to builders (Voldman & Vayssiere, 1989).

Grouped, strategic, and planned urban renewal emerges during major urban upheavals following demographic, political, economic, or technological crises or natural disasters. It utilizes legislative and operational tools developed by public authorities to manage crises and control urban transformation. This form of renewal is the result of public authorities' intervention within a defined regulatory framework, adapted to large-scale operations that encompass entire blocks or neighborhoods (Dutercq & Van Zanten, 2001; LeGates & Stout, 2011).

The scale of operations dictates the planning-based approach, where urban programming based on a plan successfully structures large-scale redevelopment operations. This form of urban planning, characterized by top-down decision-making typically by the state, is indicative of the early stages of urban planning as a public policy and reflects a particular form of organizational regulation of control applied to the regeneration of urban fabrics (Clark & Wise, 2018).

4.2 Rebuilding the City on the City: A pluralistic layered approach.

Rebuilding the city on the city as a concept recognizes the inherent potential and value within urban fabrics and established urban environments which is in line with urban renewal and aims to harness and revitalize these resources through strategic interventions and redevelopment rather than depending exclusively on the development of new urban areas, expansion, and urban sprawl.

Despite the diversity in semantics employed to describe this multifaceted approach varies across countries and contexts from recycling, regeneration, remodeling, change, and restructuring, the common denominator lies in the imperative to intervene on the existing city and "make the city on the city" (Duany & Plater-Zyberk, 1994; Paquot, 1999). The acknowledgement of the dynamic and ever-changing character of the city as an entity, requiring perpetual regeneration and renewal with due respect to the cultural and historical layers, to reinvigorate the urban experience and remain vibrant and responsive to the changing societal, economic, and environmental contexts.



Figure 27 The ten strategies of urban regeneration
 Source: Steffen Lehmann 2019

4.2.1 The American foundations and experience of Urban Renewal

The term "urban renewal," translated in French as "Renouvellement urbain," evokes meanings such as renewal, reconnection, and recovery, implying continuity with the past (Giovannoni, 1998; Paquot, 1999). This phenomenon originated in the United States in the 1960s, where neglected port wastelands were redeveloped to accommodate tertiary activities. This tertiarization and conversion into new activity hubs not only provided new

economic opportunities but also reshaped the urban landscape, creating new centralities in cities like Boston, Baltimore, and New Orleans (SERVICE & LIBRARY OF CONGRESS, 1978).

European experiences, exhibited a similar logic, exemplified by the London Docklands, Barcelona and Lisbon for the Olympic games, involved the complete conversion of neglected spaces into modern, multifunctional urban areas catering a diverse range of activities and uses reflecting the transition towards a service-based economy and the evolving demands of urban living (Couch et al., 2003).

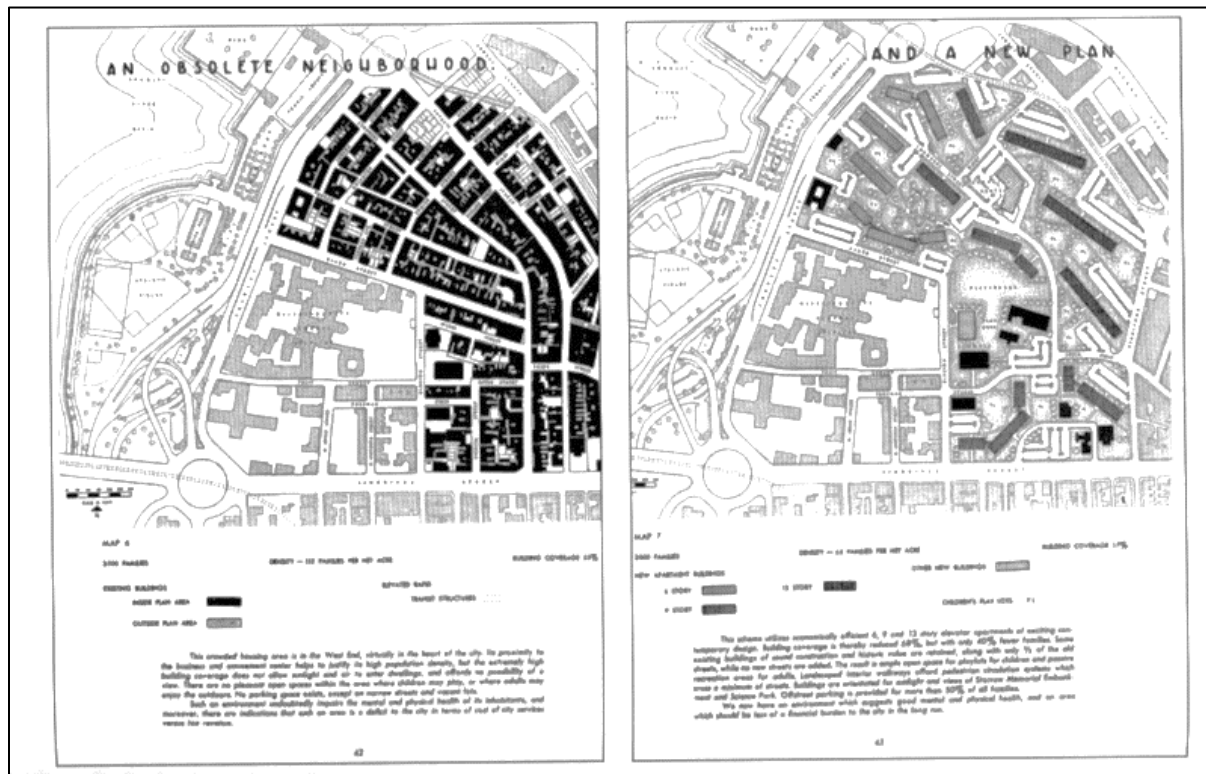


Figure 28 A general plan for Boston West End (preliminary report)

Source: Boston City Planning Board 1951. 42-43

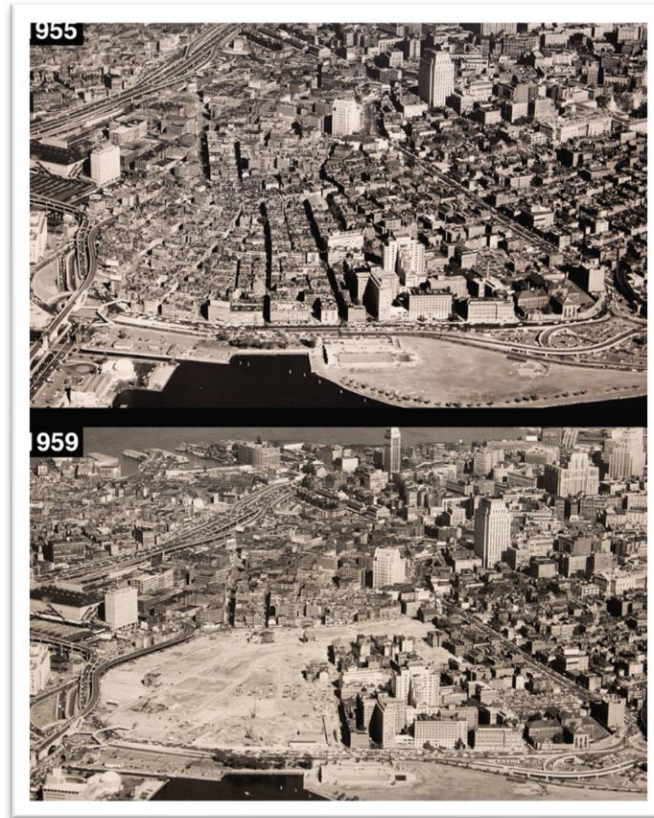


Figure 29: Aerial view of Boston 1955, 1959
Source: artpictures.club

4.2.2 Urban Regeneration: From Wastelands to Wonderlands?

The concept of "urban regeneration" gained prominence during the second half of the twentieth century in England. This term is more specific than "Urban Renewal" and appeared particularly concerning close proximity of city centers, as a tool for reclaiming industrial wastelands in physical, economic, and social terms. Urban regeneration is a more specific concept than urban renewal, focusing on the reclamation of wastelands, often in proximity to city centers. Consequently, policies for urban regeneration in the United Kingdom have aimed to restore derelict spaces marked by visual blight and economic stagnation, creating an environment conducive to attracting new businesses and investments through tax incentive measures fostering local economic strengths and social vitality addressing unemployment and access to services. Concurrently with the evolution of urban regeneration to encompass various types of wastelands, reconquering and revitalizing the territory remain consistently the supreme objectives.

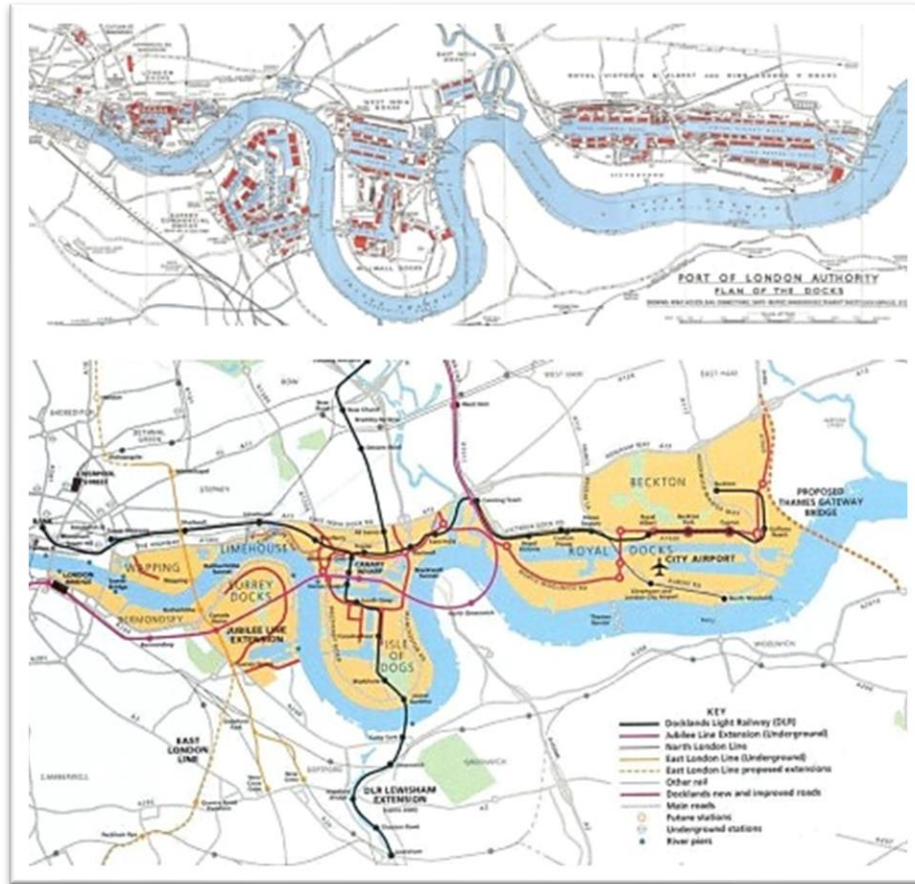


Figure 30 The adaptive reuse of infrastructure in London Docklands
 Source: David Mountain, 2017

New residents and activities would follow the enhancement of physical and economic environment, with ongoing restoration of positive area image and cityscape, empowerment of communities and involvement of the local population enabling reappropriation of space (Roberts et al., 2000; Tallon, 2013).

4.2.3 Urban Solidarity and Renewal in France:

The distinctive approach of Urban renewal in France combines legislative framework with urban planning theories focusing social equity and sustainability. Indeed, the French approach to urban renewal, particularly under the auspices of the *loi SRU* (Solidarité et Renouvellement Urbain) that has become a focal point of urban policies in line with new components such as urban mix, social mix, sustainable development, and the fight against urban sprawl. This Law enacted on December 13, 2000, is the culmination of a national debate launched in 1999 on the theme of "Living, Moving...Experiencing the City".

Of course, there was no timing coincidence with the presidential and legislative elections of 2002 and the renewed debate around social mixing, immigration, and the assimilation of the values of the republic resurfaces. A strategic move from the government led by Prime Minister Lionel Jospin in a coalition with the Socialist Party, that considered addressing social and urban challenges as a priority to consolidate its base among urban voters in large cities, to contain liberalization and security issues policies from the right-wing opposition.

It mandates that 20% is the share of social housing in all municipalities with more than 3,500 residents (1,500 in the Île-de-France region) during a period of 20 years. Such requirement highlights the need to Ensure Greater Coherence between Urban Planning and aims at promoting social diversity and reducing residential segregation by ensuring a more equitable distribution of affordable housing (Bonneville, 2004).

Series of laws such as *Loi Duflot* in 2013 and *Loi Elan* in 2018 remind the common concerns that exist across different visions of the rebuilt city. Urban renewal in France embeds a commitment to social justice within its urban renewal efforts by legal enforcement which differs significantly from both urban renewal strategies in the United States and in the United Kingdom. Despite the diverse terminology associated with urban renewal, plurality of strategies and territories are addressed to accommodate the multifaceted nature of urban renewal initiatives (Healey, 2006). While the US approach is often leading to the displacement of communities gentrifying neighborhoods and prioritizing economic development over social equity, the UK relies primarily on privatization and market-driven solutions through Public-Private Partnerships (PPPs) to stimulate contaminated brownfields and wastelands.

Table 2: Contrasting the Modern and Post-Modern City

Source: Hall (2006, p 100).

<i>Urban form</i>	
Modern Homogeneous functional zoning Dominant commercial core Steady decline in land values away from centre	Post-modern Chaotic multi-nucleated structure Highly spectacular centres Large 'seas' of poverty Post-suburban edge-city developments
<i>Urban planning</i>	
Modern Cities planned in totality Urban space shaped for social ends	Post-modern Spatial 'fragments' designed for aesthetic ends
<i>The urban economy</i>	
Modern Industrial Mass production Economies of scale Production-based	Post-modern Service sector-based Flexible production aimed at niche markets Economies of scope Globalised Telecommunications and information-based Finance Consumption-oriented Jobs in new edge-of-city zones
<i>Society and culture</i>	
Modern Class divisions Large degree of internal homogeneity within class groups	Post-modern Highly fragmented Lifestyle divisions High degree of social polarisation Groups distinguished by consumption patterns
<i>Architecture and the urban landscape</i>	
Modern Functional modernist architecture Mass production of styles	Post-modern Eclectic 'collage' of styles Spectacular Playful Ironic Use of heritage Produced for specialist markets
<i>Urban government</i>	
Modern Government Managerial – redistribution of resources for social purposes Public provision of essential services	Post-modern Governance Entrepreneurial – use of resources to attract mobile international capital and investment Place promotion by city authorities Public and private sectors working in partnership Private provision of services

5. Territories of Urban Renewal Strategies

The multifaceted notion of urban renewal applies to various contexts and entails numerous challenges, it encompasses a diverse array of contexts and contents that make it complex to address uniformly.

To highlight this diversity, we propose to analyze urban renewal in three distinct contexts: social housing complexes, industrial wastelands, and run-down old neighborhoods. These territories share the common characteristic of their living environments no longer meeting the needs of their inhabitants, leading to issues such as the proliferation of urban wastelands, devaluation of central neighborhoods, and exclusion problems (Cavicchia, 2023).

5.1 Social Housing Complexes

The famous HLM¹ are at the forefront of urban renewal issues, these social housing complexes of the post war reconstruction have been experimented and reconducted in the north African cities during occupation and after independence. Generally, located in the periphery to accommodate the necessary indigenous labor force in high-density neighborhoods with affordable housing options. These areas experience processes of disqualification, lack of investment, repetition of a single model, social stigmatization, exclusion, and segregation, accelerating a drastic deterioration in their social living conditions (Chukwunwike et al., 2017). Consequently, urban renewal efforts in these areas require a comprehensive approach that not only addresses the physical refurbishment and façade renovation of large-scale buildings but also focuses on reconfiguration and subdivision, social integration, and community-driven initiatives. There is a need to reconsider these neighborhoods, enhancing their urban fabrics with public services, contemporary buildings, and economic operations to address these challenges (Duany & Plater-Zyberk, 1994; Hyra, 2008).

5.2 Industrial Wastelands

Once thriving hubs of economic activity, industrial wastelands have watched the economic dynamic change and experienced a profound loss of value. Often with few or no housing estates, they encompass former military sites and barracks (Madani, 2010), industrial wastelands, former docks or silos, port areas, freight stations, mining, and steel areas, and more.

¹ Habitat a loyer modere abbreviated HLM, is a formula of affordable housing generalized during late French occupation.

A long-term spiral of abandonment and exclusion marked these well-located urban sites posing real challenges for public authorities. The regeneration of these industrial wastelands call for effective control measures (Rana Amirtahmasebi et al., 2016).

Through an innovative analytical framework, Yunxi Bai integrates stakeholders' viewpoints from local governments, residents, developers, to designers when approaching sustainable urban renewal. His research highlights the significance of modifying the local industrial framework, expanding employment and job opportunities, and consolidating environmental aspects that he considers key to the three dimensions of sustainable urban revitalization. Results emphasize the competing priorities of various stakeholder profiles and show how to successfully balance these diverse interests towards a more inclusive and sustainable urban regeneration (Bai et al., 2023).

Adopting alternatives that are tailored to the specific challenges and opportunities of each district, is possible with the coordination of decision makers and urban planners actions in a global urban renewal scheme.

5.3 Run-Down Old Neighborhoods

Old neighborhoods fabrics present challenges, and opportunities that include not only urban renewal but different forms of revitalization at different paces aimed at facilitating designed redevelopments. Addressing the peculiarities of these sensitive areas within a city is a complex endeavor and can be diverse, incremental and community driven. As part of our study, we aimed to establish a typology of old areas that we believe require reevaluation and are subject to urban renewal operations.

5.3.1 Old Residential Sectors Outside the Market:

Cities with a depressed real estate market are often characterized by run-down old residential sectors that have been excluded from valorization processes and are outside the bounds of the active housing market. In addition to deterioration, these neighborhoods experience a disqualification process, where they become increasingly unattractive to potential investors and developers, hindering renewal and leading to a cycle of disinvestment and further decline. Such situations with a unique set of challenges, dictate collaborative public intervention with private owners (Healey, 2006; Roberts et al., 2000).

However, after public strategic investments, mobilizing private owners must stimulate urban renewal dynamics and recreate conditions for an attractive real estate market, to

be balanced with the risk of gentrification, which can displace long-term residents and alter the character of the community. Urban renewal in these old urban sectors outside the market, should adopt a balanced approach that combines physical revitalization, economic development, and community empowerment, to reintegrate these specific sectors gradually into the housing market.

The approach here involves associating public and private stakeholders in renewal interventions. In these predominantly residential sectors, various scenarios can emerge: resorption of unhealthy blocks while maintaining residential dominance, urban enhancement operations that preserve built heritage, complete transformations from housing to other activities, and the evolution towards mixed fabrics.

5.3.2 Mixed old Residential Neighborhoods:

Mixed old neighborhoods are described as a complex urban fabric that includes a collection of modest and dilapidated housing alongside declining or relocating industrial activities. Due to their inability to regenerate themselves, these aging, long forgotten neighborhoods with pericentral location, are increasingly in the loop of developers.

Mixed-use-strategies to achieve the necessary balance between physical and social components typically involve tailored strategies while modernizing the hyper center, such as substituting warehouses or hangars with logistics complexes or introducing multimedia activities. Alternatively, the area's activities can be completely transformed to focus on leisure and various facilities, which may involve demolishing or converting buildings.

Upgrading these areas is crucial for enriching local urban functions. Examples include the transformation of industrial land into commercial, residential, and new industrial spaces, improving land use intensity in Shenzhen, China (Lai et al., 2020).

5.3.3 Historic Fabrics:

Historic cores are not merely collections of old buildings but are the repositories of a city's history, culture, and collective memory, furthermore they have consistently functioned as central hubs for exchange, habitation, meetings, and commerce in cities across cultures. Through their architectural and social narratives, architectural details and urban layouts, they encapsulate the urban essence, the authenticity and heritage value as the most significant component of cities and their identities.

These fabrics are sensitive to changes being a tangible connection to the past, they can be meticulously leveraged to enhance modern urban branding and image strategies through incremental renewal efforts (Tiesdell et al., 1996). However, former fabrics in the

developing world face historic discontinuity multiple degradations, threatening not only their architectural and urban value but also their historical value and the symbolism of lived experiences. These areas often suffer from deterioration issues and a mismatch with contemporary urban circumstances (Tallon, 2013).

Considering the unique challenges and characteristics of run-down old neighborhoods is crucial for effective urban renewal strategies, as they play a vital role in shaping the overall urban landscape.

6. Objectives of Urban Renewal: Revaluing Declining Spaces

The overarching goal of urban renewal is to revitalize and revalue urban areas that have experienced decline and devaluation over time. However, it is crucial to recognize that the specific objectives and appropriate intervention strategies may vary depending on the typology and local context of the affected urban fabrics.

Declining urban spaces often exhibit common symptoms of degradation, such as dilapidated infrastructure, deteriorating building stock, economic stagnation, social challenges, and environmental issues. Nevertheless, the root causes, extent, and manifestations of this decline can differ substantially across neighborhoods, requiring a nuanced understanding of each local situation:

6.1 Physical revitalization and preservation to foster built environment:

Physical revitalization and modernization, renovation, housing development, infrastructure improvements, public spaces amenities and community facilities are outcomes of urban renewal endeavors. The objective is to foster a built environment. Concurrently, as it meets functional efficiency and aesthetic appeal it also adapts to the evolving needs and lifestyles of its residents and businesses and celebrates neighborhoods culture and history, protecting character and identity assets. Ultimately, these improvements aim to boost the overall quality of life and increase the attractiveness of the area.

6.2 Incorporation and amalgamation:

The assimilation of renewed urban areas into the existing fabric of the city can be likened to implants that risk being rejected by the larger urban body if not meticulously and

properly integrated. Reconfiguration of the pre-existing fabric involves strategic restructuring of the urban layout, infragoald connectivity toward a smooth transition between new and old may be favorable to the ultimate goal of ensuring a cohesive and harmonious urban landscape. Moreover, a new land registry that aligns the land subdivision patterns and parcel configurations within the renewed sectors, with careful consideration of typical features prevalent in the larger urban area, would undoubtedly contribute to a more uniform and cohesive spatial organization.

6.3 Diversified Urban Functions and vibrancy:

By integrating mixed use developments redefining and redistributing functions, neighborhoods users can enjoy spaces that blend residential, commercial, and recreational uses, thereby enhancing the vibrancy and appeal of urban areas. While addressing social issues such as poverty, crime, education, and access to services, this diversification helps local businesses thrive, encourage investors, support local enterprises, and create new job opportunities to stimulate economic vitality. Providing accessible public spaces, mixed-use developments promote sense of belonging, social interactions and community empowerment, engaging residents, and stakeholders in the renewal process, ensuring that interventions align with the needs and aspirations of the local community, enhancing the overall quality of life for residents.

6.4 Building Stock upgrade:

Integrating sustainability and green infrastructure into the urban fabric enhances building performance, longevity, environmental quality, and resilience. This can involve demolition, conversion, rehabilitation, or other measures. The ultimate goal is to ensure that the built environment meets the needs of the community effectively. Simultaneously, it is crucial to attract investment and create opportunities for existing residents to benefit from revitalization efforts, while ensuring that development is equitable and prevents gentrification and exclusionary displacement.

Each urban renewal operation involves interventions on pre-existing real estate. These interventions can vary significantly ranging from radical demolitions of obsolete structures to more selective demolitions in safeguarded or structuring urban sectors. The degree of preservation of the building stock emerges as a critical parameter for analysis and decision-making, although stakeholders may hold divergent perspectives on the

historical, cultural, or architectural value of certain buildings or urban fabrics, it may be subject to ongoing discussion and controversy throughout the process (Pinnegar et al., 2015).

To navigate urban renewal intricacies, a contextual and inclusive approach with a delicate balance between the desire to change and required demolition is needed. A thorough analysis of potential impacts including competing interests is necessary to determine the extent of preservation or transformation.

7. Addressing the issues of Urban Renewal in Old Neighborhoods:

Urban renewal, particularly in old neighborhoods, stands as a critical area of focus within urban planning and development. This section, titled "Addressing the Issues of Urban Renewal in Old Neighborhoods," unfolds the complex landscape of urban renewal, focusing on the unique challenges and opportunities that these historic areas present.

The practice of transformation and revitalization holds particular significance when applied to old neighborhoods within the city. The presence of established communities, aged infrastructure, and significant cultural heritage add layers of complexity to this process.

More than improving aesthetic or attractiveness, the central aim of this comprehensive approach is the enhancement and upgrade of deteriorated districts or vulnerable urban areas to meet residents needs in respect of the local history and culture. uplifting the quality of life for residents by adapting, transforming, and fortifying the existing urban fabric and infrastructure.

Within the realm of urban renewal in old neighborhoods, three key issues emerge:

7.1 Typological, Morphological, and Spatial Considerations:

Improving housing conditions encompasses the adaptation of buildings to contemporary lifestyles and the restructuring of urban spaces to respect historical and architectural integrity or urban value. while accommodating modern functionalities. These elements carry significance and should be conserved to pass on to future generations (Tiesdell & Carmona, 2007). This involves preserving the original urban grid where feasible, introducing morphological diversity that reflect the architectural style and scale of historical buildings, enhancing spatial quality and requalifying public and private spaces to meet contemporary needs.

For other issues, other forms of urban renewal beyond reshaping the built environment and the prevalent physical transformation. Shaping the city as a society matters, when rebuilding economic attractiveness to reintegrate the marginalized neighborhoods into the city, ensuring equity and social Justice considering lives of inhabitants, social networks and sense of community (Tiesdell & Carmona, 2007).

7.2 Rebuilding Economic Attractiveness:

Central to urban renewal is the revitalization of the neighborhood's economic attractiveness. Implementing strategies that attract new businesses and investment, create job opportunities, and revalue marginalized areas by reintegrating them into the market is of utmost importance. However, it is crucial to ensure that the stimulation of economic growth does not overshadow the cultural and historical significance of the neighborhood (Golland, 2017).

7.3 Ensuring Equity and Social Justice:

Housing-related concerns are pivotal to urban renewal goals, simultaneously, the social, cultural, and economic integration of vulnerable and disadvantaged populations in neighborhoods undergoing marginalization and exclusion ensures equitable distribution of benefits of urban renewal endeavors among all residents. To address broader social issues, strategies involve implementing programs and initiatives that foster social cohesion, promoting inclusive development, safeguarding against displacement, engaging local communities to address their needs and aspirations, and improve the overall well-being of residents (Golland, 2017).

By acknowledging and addressing these stakes, urban renewal in old neighborhoods can bring about positive change and contribute to the sustainable development and revitalization of the city.

8. Contemporary Urban Renewal in the West vs. Developing World

8.1 Urban Renewal in the West

The mid-20th century Western world witnessed social, economic, and physical decline of post war cities. Subsequently, revitalization of deteriorating neighborhoods, enhancing infrastructure, and attracting investment was the primary focus. the emergence of urban renewal as a response. The process of urban renewal in the West emerged as a response

that has been guided by sustainability, inclusivity, and community participation principles (Clark & Wise, 2018; Tiesdell & Carmona, 2007).

What characterized urban renewal in the West is the priority for preservation of historical and cultural heritage (Glendinning, 2013). Restoration and adaptive reuse strategies have flourished for the revival of heritage buildings in many Western cities, converting declined urban fabrics into vibrant commercial and cultural spaces. Simultaneously, these renewal efforts contribute to the preservation of architectural heritage and promote the community sense of attachment to place, identity and belonging.

Furthermore, mixed-use development is a distinctive feature of the Western urban renewal initiatives, fostering diversity and neighborhoods connectivity. While this approach combines residential, commercial, and recreational spaces within a compact urban fabric, it promotes walkability, social interaction, and economic vitality (Tiesdell & Carmona, 2007). In addition, Western urban renewal is conscious of environmental impacts and the quality of life for residents (Zheng et al., 2014); sustainable design and green infrastructure are coupled with integration of renewable energy sources, implementation of waste management systems, and urban parks for urban cool island and urban heat island mitigation (Ballout et al., 2015).

8.2 Urban Renewal in the Developing World

If we compare it to the West, urban renewal in the developing world faces specific challenges of rapid urbanization, housing crisis, infrastructure shortage and limited resources. The priority of urban renewal in these countries is primarily to address issues of urban poverty, proliferation of slums, and indecent housing (Amado et al., 2016; Chukwunwike et al., 2017).

In addition to the increased demand, the lack of affordable housing is one of the key challenges in the developing world. While rural exodus emphasizes population growth, informal settlements proliferation surges rapid urbanization. Consequently, these contexts dictate development-oriented urban renewal efforts, prioritizing affordable housing options, integration of informal settlements and improvement of living conditions (Chukwunwike et al., 2017).

An additional major challenge in developing countries is the lack or the inadequacy of water supply, sanitation, and transportation infrastructure. Therefore, urban renewal initiatives are reduced to the improvement of basic services. These projects are supposed

to promote local economies to enhance all residents' quality of life, and initiate a more inclusive and sustainable urban environment (Home, 2020).

Moreover, social cohesion is vital in the developing world and can be visible through community participation in urban renewal. In fact, the long-term success and sustainability of urban renewal initiatives require involvement of residents in decision and policy making processes. Engaging local communities, and promoting social capital are crucial to ensure (Clark & Wise, 2018).

9. Conclusion

Urban renewal is undoubtedly a crucial factor in shaping the development of territories and how areas, ranging from pericentral local neighborhoods to hyper centers or entire sectors, develop. Such a system of coordinated actions or a multifaceted approach to intervention trying to improve deprived urban spaces and segregated territories, it addresses spatial, economic and social issues requalifying public and private spaces reflecting the array of objectives and combined methods of the involved actors across various scales, from neighborhoods to municipalities and agglomerations.

This process encompasses not only the mere physical recycling or regeneration of city but also aims at revitalizing devalued neighborhoods, empowering communities and reconstituting social balances to upgrade living conditions ensuring equity and affordability along with historical continuity (Le Garrec, 2006).

It addresses a multitude of issues related to social cohesion, spatial transformation, and the requalification of public and private spaces, reflecting the diverse objectives and methods of the involved actors (Le Garrec, 2006).

On one hand, urban renewal strategies in the Western context, largely focus on promoting sustainability, and fostering inclusive communities but preserving historical integrity and cultural legacy while adapting old urban fabrics to meet contemporary environmental and social standards (Glendinning, 2013). On the other hand, in the developing world, addressing more pressing issues such as poverty alleviation, slum clearance, affordable housing, and rectification of infrastructural deficiencies are several factors shifting the emphasis of urban renewal (Chaline, 1990; Riadh & Osman, 2021). Different settings for different contexts set the stage for context-specific strategies and policies that consider the unique socio-economic and cultural landscapes of each region.

Although effective urban renewal necessitates the engagement of different stakeholders with competing needs, the delicate balance between preserving historical values and

accommodating modern urban demands involves coordinated actions and an inclusive approach meeting local communities, government entities, and private actors and investors. Equity calls for collaborative efforts that bring together expertise and perspectives responsible and sensitive toward heritage and future aspirations (Le Garrec, 2006).

By acknowledging and integrating peculiarities of both the Western and developing contexts, researchers, planners and decision makers can effectively address the specific needs and challenges of urban renewal goals. A better understanding for a better intervention design would promote sustainability and inclusiveness of urban environments for all residents. To achieve full potential of urban renewal, inclusive strategies are key in transforming urban landscapes worldwide.

Chapter Five (05)

Intersections of Urban Actors, Governance, and Policy in Algeria

1. Introduction

Cities are the physical versions of our social iteration; affected inherently by multiple stakeholders who interact over time, contest, and match each other "*Cities are created by and for social actors which means buildings and other physical things should go beyond them in determining what a city really is*". (Muller, 1997). To fully grasp the dynamics of urban change, it is necessary to go beyond the examination of the tangible geography and also consider the human actors who shape urban spaces (Muller, 1997). Cities, at their core, are strategic constructions created by and for social actors. Thus, unraveling the trajectories of urban change requires a comprehensive understanding of the competing spatial practices and strategies employed by the diverse stakeholders involved.

It is essential to analyze the roles, capacities, and inherently performed tensions in the process of understanding the production of particular urban fabrics and territorial formations.

This chapter presents an exploration of Algerian cities, which specifically argues about central themes that are key to understanding the intricate relation between different urban actors. These themes are essential for dissecting the complex dynamics at play:

1. Exploring actors as a multiple Rationality system characterized by multiple rationalities, identity repertoires, and ways of interrelating.
2. Generating analytical understanding of governance as a theoretical concept for reorientation of decision-making between the state and society recognizing the heterogeneity of actors implementing actions based on collective variables.
3. Tracing Algeria's shift from centralized urban planning to a market-oriented policy approach, which has facilitated the involvement of private actors in real estate and land development through a series of reforms.

The chapter embraces interpretive and social-constructivist perspectives in examining cities, prioritizing the agency of stakeholders involved in appropriating, contesting, and transforming urban spaces, rather than adopting neutral and technocratic policy lenses (Giddens, 1984; Lefebvre, 1967). This approach aligns with the evolving trends in urban theory since the 1970s, which increasingly emphasize the plurality of meanings, claims, and lived experiences that manifest in the built environment, moving away from the previously dominant modernist emphasis on functionalism and macro-level determinations of urban forms (Paddison, 2001).

Paying attention to everyday spatial practices, representations, and the values and competing interests at play is crucial for understanding why certain development pathways succeed or fail. Therefore, it is essential to have a detailed understanding of the diverse individual and collective actors involved in Algerian urban processes, along with their modes of coordination, in order to comprehend the dynamics of ongoing changes.

2. Multidimensional, Network of Actors

The examination of urban spaces' transformation in Algeria commences with a fundamental understanding of the concept of an actor. An actor refers to an individual, group, or organization that possesses a specific social position, along with associated roles, access to resources and networks, and distinct values and interests (Crozier & Friedberg, 1992).

The essence of an actor lies in their strategic and meaningful actions, which aim to influence other actors in terms of decision-making and spatial behavior (Belhedi, 2004). Action is at the core of an actor's existence, as they are driven to generate actual or potential spatial impacts. These impacts necessitate the deployment of capabilities, intentionality, and the implementation of strategies to achieve desired objectives (Belhedi, 2004). Concrete or latent changes in space and behavior can only occur through purposeful agency. Ultimately, urban actors are intentional entities whose strategies and practices shape the production of space (Lefebvre, 1967).

Strategic management theorist Michel Crozier (1992) highlights the crucial importance of identifying and mapping the key public and private actors, as well as their relational networks, that fundamentally shape specific territories. According to Crozier, these strategic entities primarily drive the unfolding social dynamics through iterative cycles of action, reaction, and interaction. However, it is worth noting that certain prominent actors often overshadow other less visible ones, who nevertheless play a significant role in assessing power dynamics and interests. Therefore, it is essential to inclusively identify stakeholders, recognizing that some may exert influence behind the scenes (Crozier & Friedberg, 1992).

Moreover, categorizing actors into distinct groups facilitates systematic analysis, even though there may be some inherent ambiguities. An ideal taxonomy strikes a balance between providing sufficient granularity to make meaningful distinctions and maintaining interpretive coherence by identifying overarching commonalities within each group.

For heuristic analysis, the following urban actor sets are differentiated yet interconnected, enabling consistent comparisons:

- **Public Actors:** These are the political and administrative authorities who operate at various levels, including national officials and local bureaucrats. They play a role in executive, legislative, judicial, and regulatory matters, shaping binding plans, programs, and infrastructure. They also mediate private proposals.
- **Expert Actors:** These are practitioners such as planners, architects, and engineers who are involved in the planning, design, and management of territorial development. Their specialized knowledge often positions them to mediate between different interests.
- **Private Actors:** This category includes entrepreneurs, developers, and landowners who are primarily motivated by profit-seeking motives. They often drive spatial dynamics, as property ownership grants them development rights.
- **Civil Actors:** These are citizen-users, including homeowners, tenants, neighborhood groups, and broader social movements. They engage in use and meaning-making practices related to their daily spatial experiences and have their own agendas.

Moreover, we can add financial institutions as actors as they provide funds for renewal initiatives for either the private or public sector.

These categories of actors are not isolated from each other, but rather interconnected. Private actors can fulfill public functions, civil actors may have economic interests, and public actors can shape expert practices. However, the taxonomy serves as an organizing framework for contrasting orientations.

Furthermore, certain sub-groups often exert significant influence over discourses, policies, and urban production processes as a whole. However, cohesive blocs with unified agendas are rare. Instead, fragmentations arise along lines of class, generation, geography, and sector, particularly in relation to growth strategies, infrastructure priorities, housing models, and redevelopment options (Harvey, 1973). Therefore, it is essential to uncover and engage with perspectives that may be overlooked, as this is

crucial for understanding the positions and power dynamics that shape the trajectory of Algerian urban change.

2.1 Strategic Intentionality Under External Structuring

According to Crozier and Friedberg (1992), what fundamentally defines actors is their strategic intentionality and purposive drive. Actors behave as independent subjects endowed with independence to interpret perceived options and leverage assets towards deliberate spatial results. Their existence necessitates pursuing definite objectives conditioned by exterior realities. Still, areas for contemplation and undertaking persist amid contextual constraints.

Unpacking actor's functional maneuvering room given broader molding pushes calls for examining:

- The objectives actors pursue, and justificatory logics invoked
- The influential capacities and resources mobilized
- Interdependencies characterizing their networks whether enable or hinder actions.

The requirements of strategic urban governance accordingly are:

- Mapping actors' values, strengths and weaknesses
- Institutional connections to grasp their collective spatial dialectic. Figure 24 summarizes potential, roles and challenges:

This approach to comprehending the intentional strategic nature of actors and their maneuvering room under external influences provides a comprehensive framework for analyzing the dynamics of urban governance and policy execution.

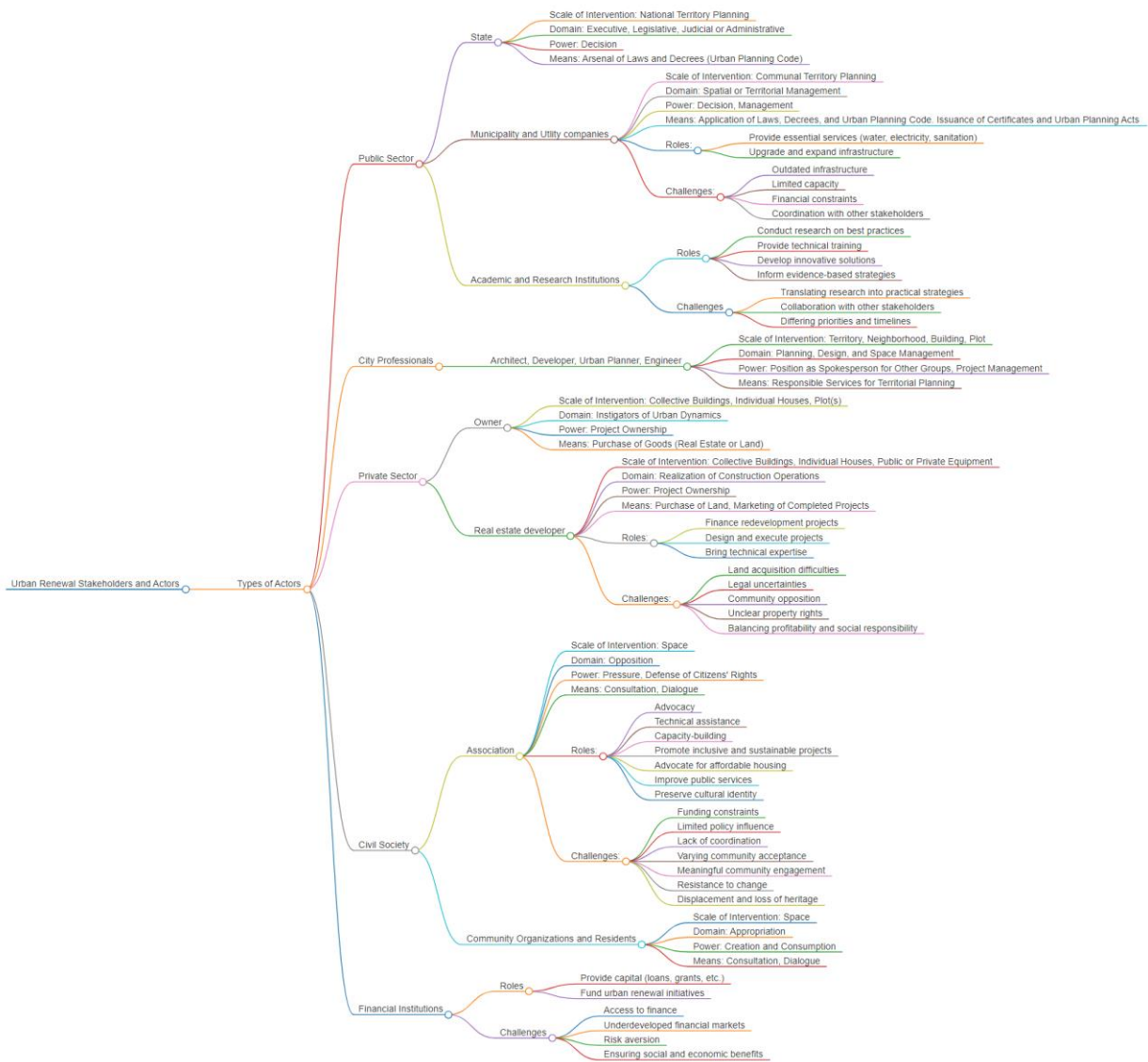


Figure 31: Clustering actors, scope of action, roles and challenges
 Source: Author (2024), markmap

2.2 Relational Tensions and the Urban "Game"

Amongst the interdependent yet conflicting actors involved in shaping Algerian urbanization, the concept of governance has emerged as an alternative socio-spatial framework. This framework redirects attention from exclusive centralized government towards enabling collective decision-making through collaborative mechanisms involving various societal actors (Madanipour, 2003). The configurations of relationships between these actors are crucial, with collaboration, competition, compromise, and confrontation representing different relational orientations due to their divergent values and interests

(Belhedi, 2004). Urban processes are underpinned by a complex and continuously evolving system of actors, where regulatory and dynamic equilibriums arise, break down, and recombine in response to the actors' spatial actions, changing circumstances, and the utility of spatial meanings and uses (Belhedi, 2004).

The collective spatial dynamics can be seen as a "game" in which actors utilize their relationships and capabilities to negotiate their interests with opposing groups and agendas (Crozier & Friedberg, 1992). Urban development involves ongoing negotiations between the discretion of individual actors and external constraints. Each actor utilizes various resources, such as rhetoric, institutional power, financial means, or social connections, to influence their peers according to their specific spatial visions and needs. In turn, each peer interprets and responds to these pursuits, either to uphold or challenge them based on their own priorities. As a result, there is a perpetual struggle for prominence across networks, and this struggle is manifested in the physical built environment.

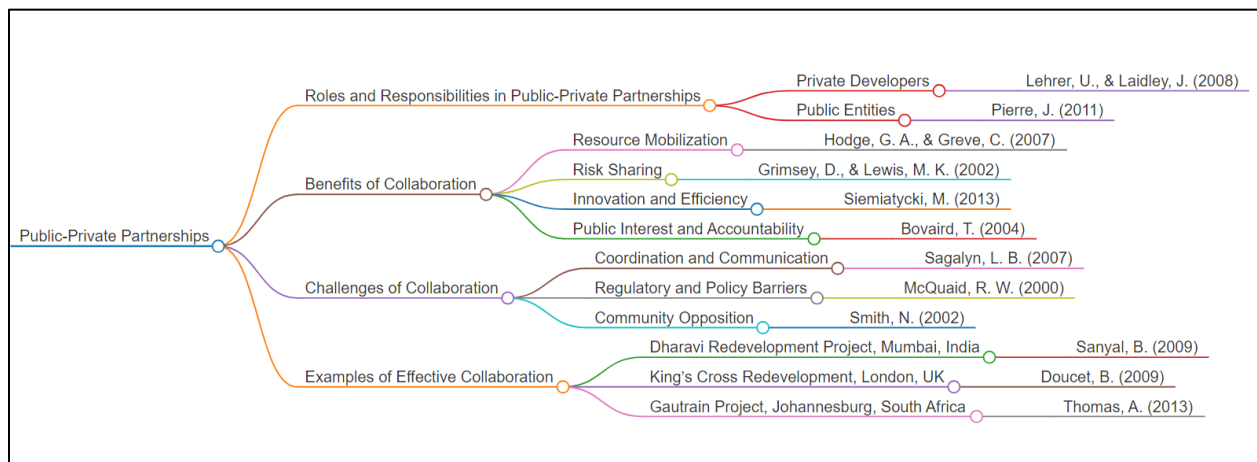
In some cases, a singular exploitative order is imposed through outright domination. This is exemplified by state directives that drove the initial post-independence growth of Algiers (Safar Zitoun & Talamali, 2009). However, more commonly, polycentric balances exist, although they are often far from equitable. Within these clusters of competing urban agendas, economic power tends to override purely democratic principles, bureaucratic processes can hinder change, and procedural priorities impede adaptation (Harvey, 1973). Nevertheless, the stability of governance relies on a sufficient dispersion of decision-making influence and opportunities for wealth generation to counteract stagnation and sustain progress that benefits all stakeholders (Fainstein, 2009).

In the context of contemporary Algerian urban dynamics characterized by actor pluralism, there is a pressing need for new organizing principles to ensure that collective decisions result in credible, optimal, and ethical outcomes, rather than fragmented discord. As a result, the concept of governance has gained significant traction in reconceptualizing the evolving interactions between the state and society in the era of globalization and decentralization. This shift reflects a growing dissatisfaction with traditional hierarchical and technocratic policymaking, as the rigid separation between the government and everyday community concerns clashes with the pervasive cross-cutting ties facilitated by mobility and digital communication (Kleinschmager, 1998). It is crucial to seek out alternative foundational principles and practical strategies that move past outdated

viewpoints, particularly as urban administrative effectiveness declines. Rather, contemporary urban areas experience a proliferation of interested party involvements around particular aims, which interrupt recognized leadership and governance frameworks. This splintering also gives rise to fresh partnerships as affiliations and oppositions are reshaped, swaying urban manufacturing and regulation processes (Gales, 1995). Therefore, simply keeping prevailing systems risks stagnation without reassessment of the conditions of civic discussion and cooperative action.

2.3 Public-Private Partnerships

Literature on downtown revitalization and brownfield redevelopment underscores that collaboration has become the preferred strategy for downtown redevelopment. One mechanism for facilitating such collaboration is the public-private partnership (PPP). PPPs, which have evolved significantly over time, involve greater cooperation and resource sharing among government, businesses, nonprofit groups, and individual citizens to address community needs (Langton, 1983). Despite the simplicity of this definition, the long history, varied implementations, and broad consequences of PPPs necessitate an understanding of the concept in terms of its variability rather than uniformity (Langton, 1983). This review, therefore, examines the changing role of PPPs over time and their implications for downtown redevelopment projects.



PPPs are not a new phenomenon. Since the nineteenth century, private interests have recognized the public sector as a potent ally due to its unique powers and the incentives it can provide. This recognition has led to a history of public involvement in the private sphere through trade policies, infrastructure subsidies, and military protection of foreign trade interests (Squires, 1989). However, the relationship between public and private

sectors became more formalized in the early twentieth century. Urban planning, in particular, adopted a more activist role, addressing industrialization-related issues through regulation of private-sector activities (Peltzman et al., 1989). This regulatory relationship persisted until the 1940s, when PPPs began to align with collaborative approaches to downtown revitalization. The post-war period saw a focus on economic growth and development, leading to more formalized PPPs, typically administered through federally funded local corporate committees controlled by autonomous redevelopment authorities (Peltzman et al., 1989).

From the 1970s to the mid-1980s, PPPs grew more complex and sophisticated, though the public partners' role largely remained to create an investment-friendly climate through financial inducements, redevelopment corporations, and public entrepreneurialism (Peltzman et al., 1989). Since then, there has been a shift towards defining successful partnerships in terms of community involvement, public interest, and the balance of power between partners (Squires, 1989). Whereas subsidies were previously the primary tool for economic stimulation, political entrepreneurs now play a crucial role by taking risks, investing resources, structuring opportunities, and brokering ideas and interests. Local governments have thus needed to develop institutional capacities that allow for greater flexibility and collaboration with market interests, minimizing the transaction costs associated with larger and more complex projects (T. Clarke, 1998).

The practical implications of PPPs remain a subject of debate. Clarke (1998) identifies three distinct characterizations of PPPs: **as pragmatic solutions to problems** best solved through public-private cooperation, **as negotiation mechanisms** within broader governance strategies that enable communities to act strategically, and **as myths that provide frameworks** for understanding complex urban situations while reinforcing inequalities and power imbalances. Each perspective offers insights into how PPPs shape urban development. Regardless of the most accurate characterization, several criticisms of PPPs must be addressed.

A significant issue is the dominance of privatism in PPPs, where partnerships often prioritize private gains over broader social benefits due to three factors: the perception of the city as a unitary organization where policies that promote growth benefit the entire community, the urban fiscal imperative that compels cities to rely on business for investment and tax revenue, and the pro-growth agendas that necessitate public support

for private development (Peltzman et al., 1989). This prioritization of private interests leads to unequal and uneven distribution of urban development benefits and creates wealth and power imbalances within cities.

Another aspect requiring scrutiny is the traditional discourse on the roles and capabilities of public and private partners. The public sector is often portrayed as inefficient and bureaucratic, while the private sector is seen as innovative and efficient. This discourse assumes that public and private sectors play complementary roles, concealing contradictions and legitimizing policies that benefit the powerful (T. Clarke, 1998). It is crucial to question who benefits from partnerships, how they benefit, and why partnerships are necessary. Partnerships should be viewed as one of several options, with varying degrees of efficiency and effectiveness (Langton, 1983).

When evaluating a partnership arrangement for a specific project, it is essential to consider the intended beneficiaries. Given the privileged position of business within urban redevelopment, PPPs can reinforce inequalities by excluding those most affected by decisions, undermining democratic processes, and providing minimal public benefits. Therefore, PPPs should be viewed not merely as development tools but as arrangements that impact various stakeholders (Squires, 1989). For a partnership to be successful, it must address fairly and professionally the needs of all partners to reconcile the goals of both public and private partners. This perspective will guide the evaluation of the partnership arrangement for the pericentral neighborhoods in our case.

3. Urban Politics

Public-private partnerships (PPPs) serve as a developmental model enabling various stakeholders to achieve their distinct goals. Nevertheless, the power dynamics within these partnerships are typically intricate and politically charged. To comprehend urban change, it is imperative to understand the underlying political processes. This discussion reviews three prominent urban political theories: pluralism, elite theory, and regime theory.

Pluralism, one of the oldest and most developed urban political theories, rejects the stratification of power and is based on the notion that aggregated interests are represented by elected officials. Recognizing that pluralism is not a monolithic concept,

many different perspectives have emerged from it, and numerous theories have been developed in opposition to it (Judge, 1995).

In contrast, elite theory posits a hierarchical understanding of society, focusing on the relationship between those with power and those without. This theory generates a normative debate about the difference between advocacy and reliance, as well as leadership and domination. Technocratic elite theory suggests that elites are necessary for providing leadership and managing societal complexities. In contrast, critical elite theory contends that domination by elites is neither natural nor desirable (Judge, 1995).

The growth machine concept, proposed by Logan and Molotch (1987), is a notable application of elite theory. Recognizing that neither human ecology nor Marxism could fully explain urban development, they emphasized the conflict between the use value and exchange value of property in urban politics. They concluded that urban arrangements are driven by capitalists striving for profit, rentiers seeking property returns, and neighborhoods seeking use value from place. This competition leads to the dominance of exchange values through land selling and development, with pro-growth agendas benefiting local elites at the expense of the poor. Logan and Molotch argue that the assumption that growth inherently benefits a city is flawed, as it often results in uneven benefits and exacerbates inequalities. They also criticize the competitive pursuit of growth among cities as a zero-sum game that ultimately drives down global urban standards. In urban planning, they are critical of technical rationalism, highlighting how planning processes support the growth machine and serve the interests of local elites over those of ordinary citizens (Logan & Molotch, 1987).

Regime theory, bridging the gap between pluralism and elite theory, is a political economy approach that gained prominence in the study of urban politics in the late 1980s (Davies, 2002). This theory shifts the focus from social control of power to the social production of power, emphasizing the formation of long-standing coalitions between governmental and nongovernmental partners who share appropriate resources (Stone, 1993). According to regime theory, public policies are shaped by the composition of a community's governing coalition, the nature of relationships among coalition members, and the resources they bring to the coalition (Stone, 1993). Stone further categorizes urban regimes into maintenance, development, middle-class progressive, and lower-class opportunity expansion regimes, each differentiated by the resources required for viability and the governing task's complexity. However, these typologies can be problematic as

they may overlook the process of regime formation and confuse changes in policy form with policy beneficiaries (Sites, 1997; Ward, 1996). Regime theory has been criticized for downplaying issues such as community mobilization, economic forces, market pressures, and upper-level government involvement (Davies, 2002; Sites, 1997).

Mossberger and Stoker refine Stone's conceptualization of regimes, identifying core criteria for applying regime theory: coalitions based on informal networks and formal relationships involving government and nongovernmental sources (including business), collaboration based on social production to bring together fragmented resources, identifiable policy agendas linked to coalition participants, and long-standing cooperation patterns rather than temporary coalitions (Mossberger & Stoker, 2001). Stone (2005) revisits the regime concept, emphasizing the importance of agency and common purposes over selective incentives, and highlighting the conflict between the model's value-free mechanics and its normative ideals, particularly the notion that those most directly affected by policy should be involved in policymaking.

Despite the debate surrounding regime theory, it remains a valuable tool for understanding the interaction of private and public interests in the political sphere. By addressing both structure and agency, regime theory provides insight into the structural nature of coalition building and the role of individual actors in devising responses, making it an essential framework for analyzing urban politics.

3.1 State-Society links: Governance as a Heuristic

In the context of contemporary dynamics within Algerian urban environments, governance of public affairs as a concept has rapidly taken on importance for rethinking evolving relations between administrations and inhabitants under conditions of global integration and decentralized decision-making. The rise of governance denotes dissatisfaction with approaches traditionally organized in a rigid hierarchy, as the strictly bifurcated public sector sphere now clashes with ubiquitous intersecting ties given mobility and digital interactions (Kleinschmager, 1998). Seeking alternative foundational principles and practical leverage points beyond outdated certainties becomes essential as the efficiency of urban administration starts to degrade. Urban governance now emphasizes engaging stakeholders spanning public, private, and community realms to provide public services and establish rules necessary for densely populated urban areas (Gales, 1995; Kleinschmager, 1998).

3.1.1 Exploring Governance: A conceptual framework and approach

Within the context of urbanization processes in Algeria, governance as a concept emerges as an alternative socio-spatial framework that shifts focus away from exclusive centralized administration towards facilitating collaborative decision-making through partnership mechanisms involving various societal parties. This perspective emphasizes the importance of cooperatively crafted decision-making that emerge through ongoing negotiations, redistributing influence across different channels including the public sector, private industry, and civic groups (Gales, 1995).

Urban governance entails the ability and shared liability among actors to conceive and actualize collective initiatives that unite key stakeholders around political determination levels (Cavallier, 1999). This method infuses local actions with shared significance such as public-private partnerships and other alliances at various scales to substantiate through common strategies and intervention structures that lend purpose to urban activities and motivate endeavors (Holec & Geneviève Brunet-Jolivard, 1999).

Similarly, definitions put forth characterize governance as the exercise of economic, political, and management authority to effectively oversee matters at all tiers of a nation. It comprises tools, processes, and institutions that permit citizens and collectives to express their interests, practice their legal rights, satisfy their duties, and mediate disagreements (United Nations Development Programme, 2012).

Taking these interpretations into account, contemporary urban governance signifies social processes that enable collective binding decisions, policies, and interventions in complex built environments. These processes are based on negotiations between interdependent actors with differing interests. Urban governance also involves meta governance arrangements that realign state oversight, market mechanisms, and civil society networks in dynamic, contingent, and relational ways, rather than being rigidly defined (Gales, 1995).

Unlike government, which implies hierarchical authority and control over territories, governance conveys a more heterarchical notion where diverse parties mutually adapt priorities reflexively (Kleinschmager, 1998). It requires coordinating the dispersed capabilities and knowledge of private sector experts, entrepreneurs, and investors, as well as knowledgeable civil associations and active residents, alongside state agencies and elected councils, towards shared goals.

3.1.2 The Imperative of Governance

Given the significant impact of various actors on the process of urbanization in Algeria, it is essential to adapt institutional frameworks to accommodate this fragmentation and establish new social agreements that reflect the increased diversity and complexity. This necessitates the adoption of "metagovernance" (Jessop, 2004), which involves restructuring bureaucratic processes through revised connections between the state and society. Rather than directly controlling interventions in the built environment, public authorities must assume facilitating roles that strategically enable, incentivize, and integrate the capabilities of relevant actors.

The emergence of influential real estate interests, specialized technocratic agencies, and international professionals has decentralized and diversified the urban political landscape in Algeria following the reforms. Previous models of centralized planning and expertise are no longer adequate in harnessing the financial scale, design innovation, and construction capacity that exist outside of state channels after liberalization. This poses a risk of widening disparities between privileged enclaves and deteriorating neighborhoods without balanced investment.

Addressing fragmented urbanization requires meta-coordination systems that align market dynamics with social imperatives. No single entity possesses the necessary perspective or jurisdictional reach to unilaterally determine equitable and integrated territorial outcomes. However, unregulated land and property exchanges without appropriate checks and balances will inevitably result in imbalances.

Therefore, establishing multi-level, interdisciplinary partnerships through iterative dialogue offers a promising framework for governance (Healey, 1997). Active civil society oversight and participation in policy processes equally contribute to maintaining transparency and accountability in decision-making (Kleinschmager, 1998). Resolving differences and devolving decision-making authority also unlocks localized innovation that hierarchical control tends to stifle (Fainstein, 2009).

3.1.3 Implementation of Multi-Stakeholder Governance

As the principles of collective mediation appear unavoidable to steer sustainable Algerian urban futures, practical modalities for engagement become equally crucial. Contemporary cities embody such extreme intricacy that "chaotic governance" risks prevail with excessive competing interests lacking coordination (Gales, 1995). Unstructured

participation similarly permits certain groups to capture debates and agendas. Avoiding these hazards requires formally mandating governance processes through legal empowerment and charters. Charting explicit discussion parameters, balances of representation, ethical obligations, and decision ratification provisions at the outset enables equitable involvement (Healey, 1997).

The above notions of co-accountability and metagovernance signify that realizing virtuous cycles of growth and opportunity cannot rely on singular actors alone. Rather, each group outlined earlier possesses capabilities that intertwine through planning, investment, construction, and community building. Therefore, governance equitably combining these complementary dimensions proves essential to actualize inclusive Algerian cities that resonate with diverse dwellers (Fainstein, 2009).

While the specific approaches to operationalization may vary and continue to be subject to debate, there are several important principles that can guide the process of achieving productive and balanced collective decision-making. These principles include:

- Formalized participation procedures embracing historical exclusion,
- Assistance in building association to scaffold grassroots input,
- Independent assessments of policies and audits of projects
- Cross-sectoral planning/oversight committees,
- Devolution of resources and spatial appropriation rights,
- Value capture mechanisms that fund public goods,
- Professional ethics oversight and training to enhance engagement
- Regular community deliberation and spatial visioning.

Creating a framework to facilitate consistent and active participation of the community is crucial to ensure that Algerian urban governance maintains its inclusive and responsive nature, rather than becoming exclusive or controlled by a few. The specific arrangements and structures implemented need to be carefully customized to align with the unique characteristics and needs of different geographic and cultural contexts.

However, it is essential to establish pathways that empower individuals to have a role in shaping their living environments as urbanization continues to progress. The extent to which these pathways are utilized and put into effect will ultimately determine whether future city trajectories are marked by fragmentation or unity.

3.2 Redirecting State role for Market-Driven Governance:

The integration of state authorities, economic firms, expert consultants, and community members within the decision-making processes of contemporary Algerian cities represents a significant departure. In the past, following its independence, the country adopted a strongly dirigiste ideology, whereby central ministries dictated the development policies, plans, and programs to be executed by subordinate regional agencies (Bouchemal, 2014). The built environment was primarily shaped to meet national imperatives, with limited influence from commercial forces or user practices, given the state's monopoly over lands and housing delivery. Therefore, comprehending the recent shift towards more hybrid urban governance logics, which involve shared infrastructure provision and land usage regulation, requires an examination of the evolving state development stances. This transition from the initial socialist commitments to the gradual adoption of market logics has played a crucial role in enabling the emergence of new classes of private actors, as discussed earlier, who hold significant influence as urban decision-makers and deserve coordinated inclusion.

3.2.1 Command Planning as a Post-Independence Strategy

Upon gaining independence in 1962 after a prolonged armed struggle, Algeria's interim socialist leadership prioritized national reconstruction in the aftermath of the debilitating colonial conflict (Bouchemal, 2014). Faced with severe infrastructure deficits, the focus shifted towards investing in nascent manufacturing to reduce dependence on imports through national industrial plans. State-owned construction firms followed the centralized Soviet models of five-year plans for housing and spatial development. As a result, urban growth was primarily driven by centrally dictated future blueprints, with limited involvement of commercial speculation or citizen input (Safar Zitoun & Talamali, 2009).

However, this heavy industry orientation led to the development of disconnected urban spaces with inadequate amenities for residents' lifeworlds (Bouchemal, 2014). Non-rational land acquisition and uncontrolled urbanization further exacerbated management problems, particularly in coastal cities (Saidouni, 2000). The severe financial crises of the 1980s further eroded the state's capabilities, highlighting the need for a shift from rigid bureaucratic control towards regulated markets and private partnerships that could better harness societal potentials.

3.2.2 Retrenchment and Liberalization as Policy Imperatives

Despite facing constraints during the 1980s, housing construction in Algeria continued to accommodate the growing urban populations. However, the prevalence of clientelism and uncontrolled land/property speculation indicated an impending policy failure (Bouchemal, 2014). As a result, a shift from solely socialist principles to embracing liberal reforms in the 1990s became inevitable in order to realign governance. This shift facilitated the progressive diversification of actors, as discussed earlier, who were able to mobilize expertise and finance at the necessary scale. Consequently, the state began transferring its housing delivery monopolies to encourage private promotion that was tied to social requirements, such as mass provision (*Loi N°86-07 Relative a l'amélioration Du Cadre de Vie Urbain*, 1986).

The pivotal moment came with the 1989 Constitution, which enshrined multi-party democracy and provided guarantees for private property, thereby catalyzing the transition towards a market-oriented approach (*Constitution Algérienne*, 1989). The extensive reforms that followed triggered significant shifts in urban development pathways and sectoral roles.

- The implementation of Land Deregulation Laws, such as (*Loi N° 90-25 Relative a l'orientation Foncière*, 1990), aimed to promote rapid growth in the real estate sector by treating public and private owners equally, with reduced planning oversight.
- The introduction of competition among public, private, and cooperative housing developers, as mandated by Legislative Decree ((93-03,1993), n.d.), aimed to address the shortage of housing supply, although the outcomes were mixed.

Through these measures, Algeria embraced a necessity-driven liberalization approach to revive a stagnant dirigiste model that was incapable of addressing the demographic pressures. By legitimizing alternative ownership and governance modalities, these reforms led to the emergence of a more diverse range of actors. However, the reforms did not adequately integrate mechanisms to mitigate potential social displacements or loss of heritage. Hence, the need for participative and ethical frameworks arises.

4. Demolishing Old Buildings: Legitimacy Challenge for Public Authorities

The Algerian government's discourse and initial actions suggest a preference to demolish old, dilapidated buildings as a means of enabling urban renewal. This approach finds its justification in technical arguments and the perceived need of restructuration in aging neighborhoods. However, the realities on the ground reveal a reluctance towards this approach due to challenges associated with management, cost, skill, and feasibility. Additionally, negative perception and feedback from large public add to the implementation and acceptance difficulties of the demolition process. Furthermore, rather than a means of renewal, negative perceptions and misconceptions are additional barriers hampering demolition, extending from the collective image as degrading to the regulatory framework, to a penalty for violations to a sanction tool to ensure compliance, address damage, or provide retribution.

Algerian legislation specifies demolition as a penalty for infringements of construction codes or in situations where ruined structures pose an imminent threat. Consequently, the implementation of demolition as an urban renewal tool faces substantial challenges and dilemmas. Especially that old neighborhoods are fraught with historical significance, arguments for preservation and raising housing claims. Building from scratch to improve deteriorated urban fabrics divides opinions.

This decision is particularly challenging in Algeria due to its history of instability and disruption, as it raises questions about whether demolition promises a better city and quality of life, given the immense housing shortages and demographic pressures. Alternatively, could rehabilitation alternatives be pursued, considering the complex impediments associated with demolition, such as rehousing and skill deficiencies?

5. Conclusion

The analysis of urban actors, governance, and policy in Algeria has shed light on the divergences and convergences in the developing countries going specifically to old urban fabrics is a complex process that includes a wide cross section of actors, methods and challenges. The previous chapters have shown how various parties like municipal authorities, community and other stakeholders, NGOs, private developers, governmental bodies, urban planners and architects, and community members have uniquely contributed to the renewal process. These are the key actors involved in a complex web of dynamics that must be navigated towards the achievement of sustainable and inclusive urban transformation.

This is true because municipal authorities occupy central position of urban renewal process through planning, controlling, financing, providing infrastructure and engaging communities. The overall strategic positioning is included and their guidance in setting the regulations on which Urban Renewal Projects are developed. Rather, they are strongly supported and boosted by diverse financial resources, technical skills, and new ideas from private developers. Through Public-Private Partnership, such developers assume joint responsibilities, liabilities and risks with public bodies to ensure that they can harness the public sector's strengths.

Community organizations and NGOs needs to be involved in the planning processes so as to be in a position to demand for the infrastructure of the local people, engage in participation ,and implement various developmental projects that are sensitive to the needs of the people. Their participation also in planning offers a solution to bridge the gap between top-down planning and bottom-up needs, hence achieving the aspect of ownership and empowered residents. It is important for the city to address its social equity problems and to stop the process of displacement and gentrification.

Through such cooperation they combine consistency in vision and design to address the pragmatics of cities. On the one hand, planners make sure that the projects are relevant to the broader context, which includes urban and regional planning, while on the other hand architects are responsible for translating those plans into spatial solutions that are functional environmentally friendly and aesthetically pleasing. It has implications for how they make sense of, plan, design and accomplish integrated urban environments that address both practical and aspirational qualities.

Evaluations of urban renewal schemes reflect the proposition that there are powerful stakeholders and sub stakeholders from whom coherent coordination is necessary to achieve successful implementation. Thus, it becomes clear that there are ongoing and multifaceted relationships between municipal authorities, private developers, community-based organizations, NGOs,

planners, architects and the residents, which constitutes the dynamic process that has to be closely monitored and regulated. Each actor comes with distinct priorities, background knowledge and perspectives and therefore achieving orchestrated coherence in these components call for effective and efficient stakeholder commitment to well documented objectives.

Challenges in urban renewal in developing countries are exemplified by regulation and resource constraints, requirement of dealing with multiple stakeholder interests, power dynamics, and likely community-fatigue. Nevertheless, they also contain potential for innovation, to build capacity, and drive positive change. These challenges, however, can be addressed through inclusive practices that rely on engaging communities, positive cooperation, and diverse resources as well as embracing innovation for perpetual urban renewal initiatives.

In conclusion, the interactions and interconnected processes in urban renewal in developing countries requires an integrated approach to be fully understood, and policy should reflect this. When valuing and recognizing the role of all stakeholders as well as engaging them in effective coordination and cooperation and when managing diverse tasks and issues inherent in the process of the urban renewal it can create a sustainable environment that is not only sustainable but also vibrant for citizens living in urban areas. With several cities expanding and developing, the future of urban renewal will clearly be informed by the several successful and inspiring case-studies of urban renewal projects previously halted to benefit all the inhabitants and well-being of communities.

This collaborative journey is far from being linear, it focuses on planning and improving the urban environment with patience and innovation in the process adopting sustainable community advancement for inclusiveness. When integrated, the above-mentioned concept threads of stakeholder management, strategic planning, and community empowerment, cities are then able to bring a new life into their old and less vibrant fabrics, thus breathing new life into their ever-transforming urban landscapes.

Chapter Six (06)

**Urbanization Process of Sétif as a case study
(From a Walled City to Suburban Development)**

1. Introduction:

Today, we cannot deny the uniqueness of Sétif in terms of urban fabric as a subject to explore (figure 1). "Sétif is a city of urbanism," with experiences to duplicate and lessons from the past. "Sétif is a crossroads-city," with regional ambitions and national impact. These are not only politic campaigns slogans but scholars, intellectuals, researchers observations.



Figure 32 Aerial image of park mall and its surrounding urban park in Sétif

Source: https://www.researchgate.net/figure/Photo-aerienne-du-Park-Mall-au-centre-ville-de-Setif-Source_fig1_368472815

To contrast with historic urban planning discourse that sheds lights primarily on dysfunctions, deficiencies, and inconsistencies within cities. We aim at an objective approach without passing judgment that acknowledges both the positive and negative aspects simultaneously. This cannot be achieved without a retrospective understanding over colonial and post-independence era of the urban manufacturing process, governance, an reading of urban policies resulting in urban dynamics at different paces shaping the landscape of Algerian cities.

By scrutinizing this context, we can uncover the roots of our problematic and verify hypotheses and extract valuable lessons. Is the situation in Sétif an exceptional case study,

or does it reflect a broader national practice? While each city is inherently unique, it is the broader national patterns and practices that challenge us. Our approach and analytical framework are grounded in national data, and previous studies of different context such as Annaba (Kebir, 2016; Rahal & Boukhemis, 2012) and Constantine (Boudjabi, 2022) including prevailing legislation, urban policies, governance systems, and planning instruments. These factors collectively contribute to the construction of cities in Algeria as a whole, rather than focusing exclusively on the city of Sétif. It is worth noting that there may be specific exceptions applicable only to Sétif, although a comparative study has not been conducted to ascertain this.

2. Sétif: location and Identification

Strategically situated within the geographic coordinates of 5.34° to 5.51° east longitude and 36.13° to 36.25° north latitude, Sétif is positioned in the eastern part of Algeria's High Plateau region, as illustrated in Figure 1 (National Institute of Maps and Remote Sensing [INCT], 2021). Serving as the administrative hub for the Province of Sétif, the city encompasses a total of 60 municipalities.

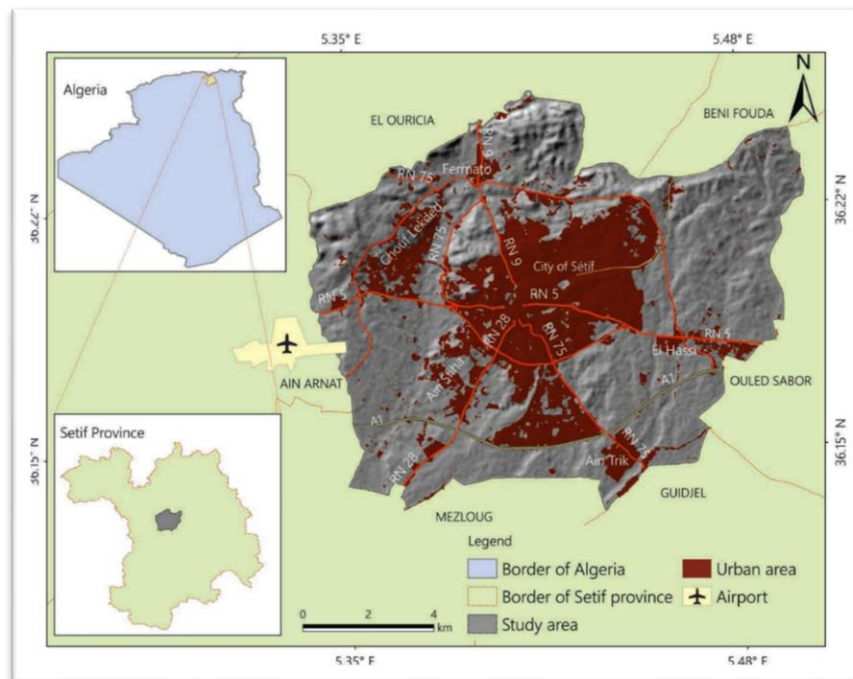


Figure 33 Geographical location of the study case city
Source: INCT 2021

Sétif asserts its geographical and economic prominence by acting as the central economic engine within the province of Sétif. It is recognized as a primary driving force in eastern

Algeria's economy. Its strategic location, approximately 267 kilometers from Algiers, 127 kilometers from Constantine, and 285 kilometers from Annaba, places it within a strategic reach of Algeria's three largest metropolitan cities. This geographical advantage positions Sétif as a potential epicenter for urban growth in the future of Algeria.

The topography of Sétif is largely characterized by flat landscapes, punctuated by several hills encircling the city from the north and south. Sétif emerges as a crucial crossroad for several key roadways, including Highway A1 and National Road No. 5 (RN 5), which establish a connection between the capital and the eastern and western regions of Algeria. Additionally, RN 75, RN 9, and RN 28, the national roads that link Sétif with neighboring regions such as Bejaia, Jijel, Batna, and M'sila, intersect at Sétif. The city is also connected to the capital and the eastern part of the country via a railway system. An international airport, located in the municipality of Ain Arnat, further enhances its connectivity, situated only 11 kilometers away from Sétif.

According to 2021 estimates, the population of Sétif exceeds 393,966 inhabitants, marking a significant increase from the 2008 census count of 287,574, and the 1987 count of 186,642 inhabitants (Office National of Statistics [ONS], 2021).

Comprehensive research by geographer Prenant in the 1950s critically evaluated the so-called "great success of colonization" and provided insights into Sétif's urbanization under colonialism. He observed the city was not originally appealing but a repository for the exodus of impoverished rural inhabitants in the region dispossessed through parceling of minimal properties and subsequent waves of mechanization (undertaken by the Geneva company) in a region dominated by cereal farming. Prenant demonstrated the strong intertwining of urban pressures and rural crises. He also highlighted Sétif's status as a rentier city with significant land control over the Sétif High Plains, profiting from absent landlords at the expense of its surrounding countryside and the median of National Road 5 (Prenant, 1953).

The Algerian city of Sétif has undergone rapid changes in recent decades driven by urbanization policies modeled after foreign models, often disconnected from local social realities. As Marc Côte (1993) explains, with a relatively well-structured and hierarchical urban framework favorable to spatial control, French colonial urban planning literally turned Algerian spaces "upside down"—the consequences of this exploitative dynamic between city and countryside which persist today.

However, as explained by Côte, Sétif is a regional capital, with less hefty indicators of demography and economy. The dynamic flows of people, goods and services define a realm of impact beyond the ordinary. Although it may appear newly formed, the city has its roots deep within the ancient traditions of discourse. An equally complex urban character has also evolved that maps the city's developmental trajectory from its colonial beginnings as a 'rip' city to a model 'example' city. The territorial roles comprise ambition of transnational dynamics, local symbols, and urbanity that this discourse depicts in the daily engagements of inhabitants, renegotiating and reconstructing Sétif's urban fabric.

Despite social dislocation risks along with rapid urbanization, urban governance in Sétif mediate more pressing and insistent spatial contests of different stakeholders. The production and structuring of social relations was not only colonial. Despite an urban form that remains imprinted by colonial patterns, important steps and stages have been covered toward the construction of an inclusive and sustainable city.

This construction overlaying that forged the urban discourse in Sétif may bridge the aspirations of 'an example' of regional capital along with social facets of rural exodus, 'flows' into urban locales, exclusions, and scarcities that spatial memory has brought in. This status is a story that unfolded with time to be part of Sétif's DNA, such an essential component of its present life while making it an 'urban subject' exerting reciprocal impacts with its populations. Thus, if urban development goals are framed in terms of city's 'social life', promoting the continuing discursive imagining, contestation, and transformation that are indissociable components by those of the spaces that enable them, then it is possible to acknowledge the 'structural coupling' between the city as the living whole and its multiple inhabitants at present and across generational timelines.

3. An intermediate city with Regional Metropolization ambitions

Sétif has consistently played an intermediate role during all the key stages of economic development, independently of the metropolises of Algiers and Constantine. The role is evident and its growth from 30-Ha colonial city to its current size more than 4200 Ha, highlights its significance at the territorial scale. The question of metropolization is an international concept in the era of globalization. Four Algerian major cities have not yet confirmed their metropolitan status, but the leading city within the six named in the regional division of the SRATs, remains undecided, it is a subject of local speculation. André Prenant suggests Sétif will always play this leading role despite population constraints and political preferences. Local ambitions for the city of Sétif as a future

regional metropolis are evident in its urban dynamics and historical development as a crossroad city, gradually evolving its regional command role.

- **Historically**, Sétif's intermediary status precedes the state's post-independence territorial equity efforts. It emerged as a control and exploitation crossroad city between Algiers and Constantine before the military encampment was established in 1847.
- **Economically**, the city's functions from its unique strength, relying on various flows-goods, people, finances, and decisions. These flows shape the city's area of attraction and service." (Côte, 2009).
- **Politically**, despite upheavals and governance discontinuities, successive public authorities have undertaken promotional actions to develop the city, in line with intermediary role between Algiers and Constantine.
- **Socially**, Sétif has benefited from the state's post-independence vision of territorial equity incorporating planning, social and cultural components and the existing human potential. As a city of trade and exchange, tertiary service, it has preserved its entrepreneurial spirit since inception.
- **Geographically**, Marc Côte identifies three types of cities in Algeria: port cities, inland cities and Saharan cities. Sétif is an inland city, uniquely positioned as a crossroads due to its proximity to both the coast (60) and the Sahara 200 km.

The intermediate city concept is not defined by demographic size but by its role as an urban center in its area of influence. *"This concept of intermediate city implicitly involves a more active conception, of "conscious city" of its urban and territorial role in the process of global urbanization."* (Madani, 2012). An intermediate city operates within its space of influence, located between two poles, yet independent with its own specificities and flows. It serves as a transformational dynamic, mediating and ensuring the transition from one pole to another. Sétif exemplifies this concept, evolving over time, results from political will and successive economic development and planning programs from the 1970 special plan to the latest five-year plan. Various administrative divisions post-independence, confirm its colonial role of as regional capital and further reinforce it with the pioneering spirit transcending sectors, not just in building and construction. Guided by political

directives, Sétif has demonstrated leadership by often anticipating central government measures and being the first to implement them. This pilot role extends to other urban initiatives, where the city's proactive measures have sometimes set bottom-up precedents for nationwide adoption. This status rooted in its historical role and evolving through successive economic and planning programs, highlights Sétif's dynamic urban development and its strategic importance in Algeria's urban network.

4. Historical analysis of the study case city

Rocca (1903), indicates the origins of the name from "Assetaf" or "Sadif", the byzantine city demolished after a terrible earthquake according to many narratives. The city follows three historical phases of urbanization like Algerian cities; however, the evolution is mainly about colonial and post-colonial periods. Consequently, we refer to the division established by Chorfi (2019) starting from the military camp as the first settlements in Sétif.

The post-independence urban landscape of Sétif reflects a reclamation, continuation, and expansion of the colonial city. This legacy includes territories, urban evolution, and development mechanisms, including management legislation which shaped the first generation of urban policy in independent Algeria key to our problematic of attachment to colonial neighborhood under densification and renewal dynamics.

4.1 From Ruins to Intramural City (1847-1930):

4.1.1 The resurrection of Sétifis ruins

The city of Sétif's creation, evolution, and dynamics during its first century of development remain underexplored, presenting a valuable research opportunity (Côte, 1981; Prenant, 1953). Despite limited contemporary affirmation or contestation, early works by X. Malverti, A. Picard and Rocca provide foundational insights. Rocca's 1903 monograph characterizes Sétif as a strategic location due to its historical significance as a Roman city, Sétifis, its abundance of grain, and its notable marketplace.

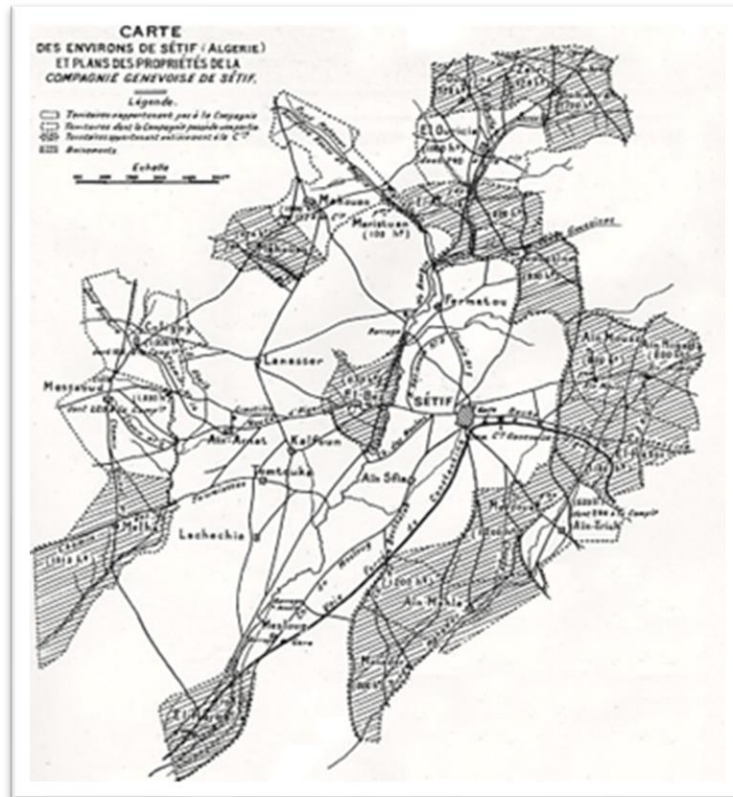
Prior to French colonization, Sétif was a significant metropolis and melting pot of civilizations evidenced by Byzantine fortifications, water resources, and Roman ruins. However, the colonial era's excavation efforts obscured aspects of the Muslim city. Despite

focusing on post-independence urban development, it is crucial to acknowledge the cumulative influence of the colonial period on Sétif's growth.

The colonization strategy initiated immediately after 1830, aimed for comprehensive land management in Algeria, establishing cities, colonization centers, villages, isolated farms. In 1836, Governor General Marshal Bugeaud's network of cities formed much of today's structure (Malverti, 1994).

This strategy prioritized creating garrison centers like Sétif, positioned at desert entrances, later complemented by agricultural villages. Emphasizing urban development, which was absent in the pre-colonial nomadic structure, intensified urban identity (Prenant, n.d.).

In 1844, a survey plan revealed three distinct zones in Sétif: the old village, the new village, and the military district (Figure 3). By 1845, with a population of 650 expected to grow to 3,000, the War Department initiated planning the city's expansion. The chief engineer faced the challenge of determining the type of settlers for the city. In 1853, the Geneva company secured a contract for 20,000 hectares of land, planning to bring 3,000 Swiss settlers and develop half the land for agriculture, with ten villages on the other half (Map 1). Founded by Francois Auguste Sauter de Beauregard, the Geneva company became the largest private landowner in Algeria, playing a significant role in colonization for a century, prioritizing development and profit over ethics (Lützel Schwab, 2006).



Map 1: (Geneva company) land Acquisition

Source: Archives, CAOM B 5032. Cited by Mahdadi Nouredine, 2019

"The military character of colonization, throughout the 19th century, gave the Corps of Military Engineering of the Army of Africa a leading role in establishing city plans..." (Saidouni, 2000).

- The approval of the military plan in 1846 with focus on the military district, then a simple village for settlers.
- Different civilian district layout with aligned houses, complicating connection with the military district
- Debates on facility placements and separation of civil and military districts.
- El Atik Mosque built as part of the French control strategy.
- The Engineering department requested plan extension for increasing European population to exploit agricultural and commercial resources (Malverti, 1994).
- Challenges in determining city size and population.
- Concerns about concentrating farmers in a trading city.
- Decision to house 1,500 additional inhabitants, including 50 farming families, made five years later (Malverti, 1994).

Native population integration and religious influence:

- Integration of native population and construction of El Atik Mosque influenced zoning plan.
- Debates on Church location, leading to its placement on a height in the civil district in 1848, dominating the Muslim Mosque.
- Creation of Trajan Square as a second square after Ain Fouara.

Military strategic objectives:

- The city as a spatial organization with strategic objectives.
- Regularity and order in city layout.
- Urban spaces defined by streets, alleyways, squares, esplanades and boulevards.
- Size of the city, width of streets, and size of parade ground determined by military art rules of symmetry and proportion (Malverti, 1995).

4.1.2 Incremental essence of the city

The evolutionary process is clearly visible when looking back at the development emanating from the city's nucleus; shaped by the past, the realities of the present, and projections for the future. It transitions from an expanding city to a structured city and finally to an opened city. The process at a very slow pace took nearly a century without reaching saturation.

The military barracks and a civilian quarter based on alignment principles, aiming to embody distinctly French essence. The plan, characterized by spacious and well-organized layouts, adhered to 18th-century hygienist ideals for improved traffic circulation and sanitation (Figure 4). Xavier Malverti and Aleth Picard highlight the incremental process, emphasizing urban form and road network principles. Parcel assignments were flexible, organizing stakeholders around urban regularity, with public space shaping the overall layout. The city's design allowed for adjustments during negotiations, maintaining the plan's integrity over time, densifying, and becoming more well-equipped within a four gates-bounded area, confirming its advantageous location at the crossroads.

Currently, new buildings are being constructed to replace older ones, although they are required to adhere to the original city design. Notwithstanding the alterations and modifications, the city's arrangement persists, and novel initiatives conform with the initial blueprint (Figure 5).

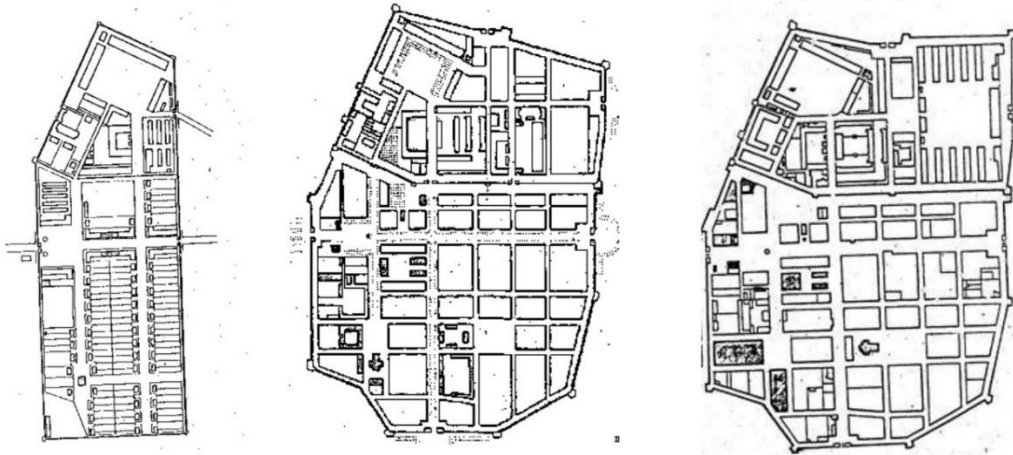


Figure 34: Plan of 1843, 1847, and 1848 (left to right)

Source: Malverti, 1988

Without master plan during the first century, Sétif's urbanization was rather an ongoing process than a final outcome, preserving the original design despite new constructions replacing older buildings. Initially, the city's layout evolved gradually with future buildings visualized like squares on a chessboard until stakeholders reached a compromise. Central buildings were densely arranged, while facilities like hospitals, schools, prisons, and slaughterhouses were placed in less central areas due to sanitation, organization, operation or land availability considerations.

4.2 Land Significance in City management: Expropriation and Infrastructure development.

The French colonization in Algeria, illegally took over "Arche" and "Melk" lands and called this expropriation. Colonial authorities established private property rights and enacted key land laws: the 1851 legislation², the Senatus-consulte of 1863³, and the 1873 Warnier Law⁴, aligning Algerian ownership rights in mainland France and significantly influencing land distribution.

² Law of June 16, 1851, concerning property in Algeria: Watercourses are considered public property. Forests for which property and usage rights are not documented are also considered state property.

³ The senatus-consulte of July 14, 1865, granted the indigenous Muslims and Jews of Algeria a status as second-class French citizens.

⁴ Warnier law allowed for the abolition of collective ownership and breakup of undivided parcels belonging to indigenous people; it enabled true legal spoliation.

The Civil Buildings Commissioned in 1848 set standards for urban planning and construction, including arcades along main streets. In Sétif, while property owners were given free arcade development and a ten-year timeframe to harmonize building fronts with new street arrangements, they were also required to contribute to the costs of constructing walls, paving streets, installing sidewalks, and establishing sewer systems (Malverti, 1994). Additionally, they were occasionally required to plant and upkeep trees along the sidewalks next to their houses, emphasizing the collective obligation towards urban infrastructure and enhancement.

From its ex-nihilo creation to its enclosure by the walls, the city of Sétif spans barely 30 hectares progressing cautiously with self-control even when suburbs started spreading beyond the city walls, adhering to the regular layout of blocks, negotiating the parcel configuration, and balancing a built framework with urban voids and public squares. The municipality-initiated auctions to allocate vacant plots within the city limits to manage urbanization and reduce the spread of development to the suburbs, (Figure 5).



Figure 35 Sétif in 1903

Source: <https://excerpts.numilog.com/books/9782402571890.pdf>

5. From confined to oil stain city (1930-1960):

The mutations in urban practices over time, space, and population triggered a surge in Sétif's urbanization pace and approach. "Active urbanization," expanded the confined city beyond its original boundaries in all directions to become a segregated settlement even before the demolition of its ramparts (Chorfi, 2019), maintaining structured and regular pattern that included both the intramural area and its immediate surroundings. This transformation made Sétif an attractive destination for settlers and Algerian migrants seeking refuge and opportunities particularly after the world war. In addition to rural exodus, several factors such as the Cornudet Law of 1919⁵, the railway in 1925, enhancing transportation and enabling real estate speculation contributed to the rapid urbanization.

By the 1930 centenary celebration of colonization, the influence of modern movement (zoning, site planning, and large housing complexes) was clear, the city had transitioned from a classical walled city to one marked gradually by settlements of poverty and misery, especially by the end of the second world war and May 8, 1945 massacres, and that was exacerbated even more with the War of Independence 1954 and visible through the proliferation of spontaneous and illegal constructions.

The changing context was followed by a changed pace that was not without consequences:

- The onset of speculation, with agricultural land being transformed into subdivisions.
- The "Subdivision fever" following a in-migration waves (A. Prenant, 1958).
- The real estate developers as an emerging profession and a new model for demand-driven urbanization as the rise of modernity and new entrepreneurial vocation for the region prompted a sudden rise in land prices (A. Prenant, 1953).

With ten subdivisions in a record period, urbanization took off rising the urban area of a century of development totalizing 30 hectares to 35 hectares in a decade (1925-1935). Spreading in a radial concentric way from the original city center, indicating the developers' fingerprint in the new urban landscape. The "subdivision fever," urged the municipal authorities to regulate this expansion through the 1932 urban development, embellishment, and extension plan. However, these land-opportunistic subdivisions

⁵ The Cornudet Law of March 14, 1919, requires French cities with 10,000 inhabitants or more to adopt a Plan for Development, Embellishment, and Extension (PAEE) that incorporates hygienic, archeological and aesthetic easements.

remained disconnected because of the military urban easements, with distinct subdivisions designated for Europeans and others for Algerians and economically disadvantaged populations, sparking contrast with the inclusive city center through clear socio-spatial segregation.

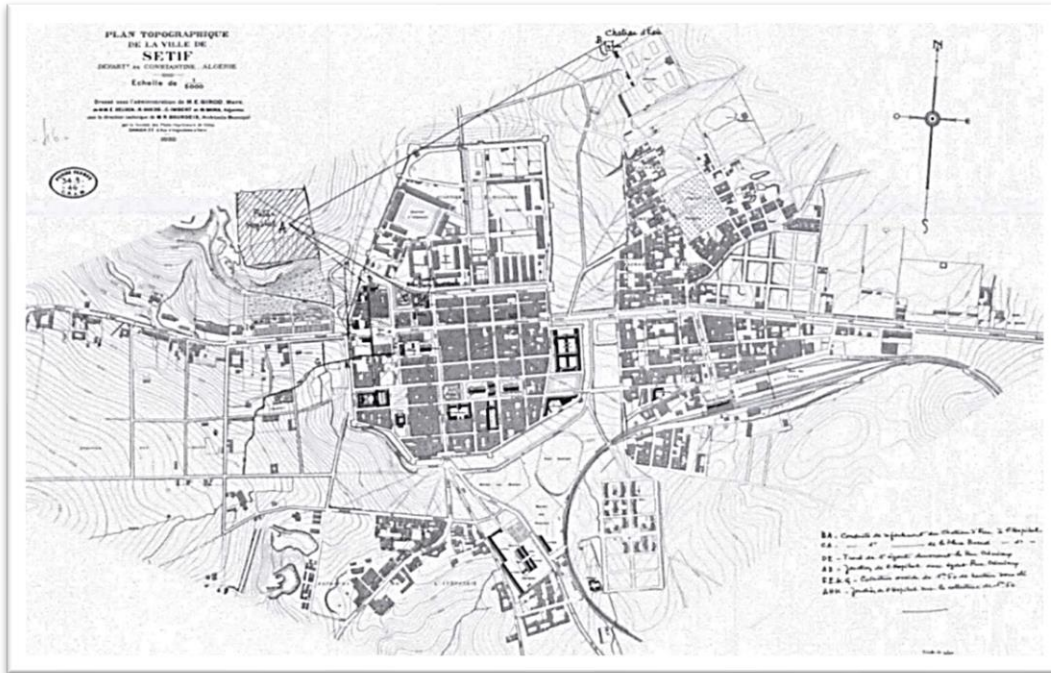


Figure 36: The city of Sétif 1930

Source: https://shs.hal.science/halshs-00380579/file/Microsoft_Word_-_Modernite_et_durabilite_a_travers_l_architecture_et_l_urbanisme_a_Setif.pdf

5.1 Planned Suburban Development

Sétif was a fortified city, enclosed within its walls and accessible through four main gates until 1926 (A. Camborieux, 1978). The shift in urban dynamics, with the expansion activities challenging traditional city limits accelerated the demolition of the ramparts and revealed suburban areas surrounding the city including areas across railway lines except to the north where the citadel and blocked urbanization, hence the (resettlement on the Bel Air site) beyond the military easement, while down the hillside to the west, a densification of individual constructions in “the garden suburb” along the national road and collective housing programs and rehousing estates (the ramparts 1 and 2, Ciloc,...) will follow the construction of the civilian hospital (1939).

While Chorfi (2019) indicates the multidirectional expansion logic, we focus on the west and the east, that include our case studies under renewal:

- **To the south:** Immigration made the territory a refuge for the population coming from the south, Negro village became a disadvantaged fringe to be allocated for the development of Cite Levy (European affordable housing) after inhabitants' relocation to Bel Air and the veterans' housing estate (see Chapter 8).
- **To the East,** the railway workers suburb, between the intramural walls and the docks and silos of the Geneva company, the Europeans preferred to settle in the new subdivisions.



Figure 37: Aerial view of Railway Workers Neighborhood site around 1925

Source: <https://excerpts.numilog.com/books/9782402571890.pdf>

Edited by the author

5.2 Informal settlements Vs Urban Planning

The informal anarchic settlement is a phenomenon that dates to colonial times, introduced upon tensions between the established European-centric city and the emerging needs of the rural migrants in Sétif. First, timidly juxtaposed the new planned neighborhoods, at the end of the 19th century, then between the two world wars and in the aftermath of World War II, to finally mature during war of independence. Based on a land ownership structure, resulting from other strategies of different actors such as Yahiaoui (Algerian owner developer), this period saw the largest informal neighborhood in the city (Tandja) to the North-east.

marche) next to Levy neighborhood, inspired by traditional city blocks for urban composition continuity restoration.

Other spontaneous emergence of informal settlements but on a smaller scale announced a break with the slow, incremental development of the previous century, diverse expansion approaches driven by individuals and informal processes brought fundamental change in urban morphology and to urban planning philosophy mixing planned satellite neighborhoods and spontaneous informal settlements lacking a cohesive overall vision for the city's growth. For instance, Kaaboub neighborhood established to the north of the city, not far from Bel Air neighborhood. It accommodated families from northern region (Ain Abbasa, El Ouricia ...), and continued to expand through successive addition of private subdivisions (Rahmani Kelkoul, 2023). Andréolli, Bounecheda and on Pierre Gaillet's land along the RN28, transforming agricultural lands into densely populated areas, contributing to urban chaos and presenting challenges to urban planning and governance.

The transition from military engineering approach to developers-driven and illegal development officially inaugurated the second stage of Sétif's urbanization beyond the walls. On one hand, it revealed segregation and socio-economic disparities, management of rural influence and integration challenges arising from rapid urbanization and urban sprawl, on the other hand, it highlights the challenges of reconciling historical urban forms with contemporary urban realities.

5.3 New Urbanization Wave: Constantine project as a catch-up process

Three decades (1930-1960) significantly expanded the city's urban area from 33 to 330 hectares. A tenfold increase in urban area (10 hectares per year as average land consumption) highlighting unprecedented pace of urbanization, driven by colonial authorities, individuals and escalating real estate developers and speculators.

To counter and mitigate the war of independence and the rise of informal settlements, the Constantine Plan aimed at addressing the issues of indigenous population and socio-economic disparities. The city's promotion to prefecture status enabled significant urban initiatives, including public building programs (such as the new courthouse and main police station, CNET, and civil protection agency) and efforts to conceal southern informal settlements. Housing projects were strategically designed to integrate and structure the southern periphery, exemplified by the Ramparts 1 and 2 housing projects, Housing

Project of the Futurém Ciloc Housing Project, and various other housing initiatives (103- and 130-Units Bel Air, 147 Units CIN.EST.AL, and Civil servant's housing projects)⁶.

Although interrupted by Algeria's glorious independence, the Constantine plan significantly increased housing capacity, aiming for 74,000 inhabitants including 65,000 in the main town (55,000 were Algerian and 10,000 European). The plan's objectives were completed post-1962.

This phase was marked by political and urban responses to address the increasing demand for urban space surpassing municipal capabilities amidst growing insecurity, rural unemployment, and population pressures.

5.4 Conclusion

The development of Sétif, from a modest military quarter to a thriving urban center, condenses a compelling narrative of resilience, adaptability and innovation in urban management. This transformation, unfolding over a century, reflects a city that retains its historical charm while embracing modernization. However, this journey has been disrupted with challenges, including periods of chaotic redevelopment and governance uncertainties that often threatened its urban fabric. Despite these obstacles, Sétif's ability to maintain its dynamism and adapt its original layout to meet modern needs showcases its robust foundation and resilience.

Sétif's development has been influenced by both endogenous and exogenous factors, including its elevation to prefecture status, rural migration, advancements in transportation, and evolving land administration strategies. These elements have contributed to significant morphological changes within the city, alongside an intensification of social segregation. The city's growth narrative is marked by a juxtaposition against both the traditional and the emergent "city of poverty," highlighting a diversity from planned to spontaneous models of housing. This points to the need for integrative planning approaches that emphasize architectural finesse, spatial organization, and social inclusivity.

Moreover, Sétif's evolution underscores the intricate relationship between colonial legacies and contemporary urban challenges, navigating between historical conservation and modern necessities. The city exemplifies the potential for other Algerian cities to strike a balance between preserving the past and accommodating future needs. Despite

⁶ https://setif.com/Histoire_ville_Setif.html

lacking a formally approved local urban development plan (PUD), Sétif has managed to assert itself as a crucial regional hub, underscoring the potential of urban spaces to thrive amidst adversity.

This retrospective, therefore, stands not only as an exploration of its unique urban fabric but also as a lens through which Sétif's evolution provides a blueprint of broader themes of Algerian urban development as it continues to navigate its future with respect to historical context, while being responsive to contemporary challenges. It illustrates the importance of embracing a holistic perspective in urban planning, one that fosters environments that are not only architecturally and historically rich but also socially equitable and adaptable to the needs of their populations. This approach is crucial for promoting a reconciled and systematic strategy that accommodates the diverse and evolving needs of urban populations, setting an urban development standard for Algerian intermediate cities.

Peter Marcuse and David Madden:

"Everyone needs and deserves housing. But today our homes are being transformed into commodities, making the inequalities of the city ever more acute. Profit has become more important than social need; the poor are forced to pay more for worse housing, and communities face the violence of displacement and gentrification." –
In Defense of Housing

Chapter Seven (07)

Post-independence urbanization

(Housing crisis roots, and speculation background)

1. Urban “Boom” (1960-1989)

1.1 General context

In the aftermath of Algeria’s hard-won independence, Sétif, like many other cities, witnessed a mass exodus of the indigenous population, concurrently, colonial settlers often abandoned or sold their properties at low prices before fleeing, fearing reprisals (Courrière, 1988). The vacated properties were declared vacant, and their illegal occupation was legalized by decree. In Sétif, 3,000 homes were declared vacant following the departure of 8,000 Europeans (Belguidoum, 1995). The redistribution logics distinguished long-term residents since colonial times, and new urbans from the countryside (Belguidoum, 1995). The prestigious neighborhoods for the former and harats⁷ of informal settlements further densified for the latter. This period reclassified urban space after reappropriation to be reclaimed and integrated into the evolving urban fabric. However, premises of housing crisis were already striking with the influx of around 30,000 rural refugees (A. Prenant). This situation was intensified with the establishment of another informal settlement in Kaâboub in the north of the city behind Bel Air housing project.

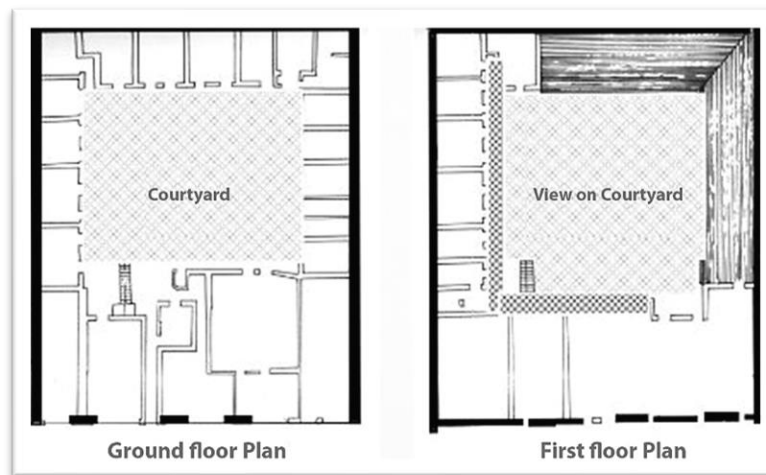


Figure 39: Grouped courtyard-centered housing (Harat)

Source: Author, 2023

The post-independence era in Sétif can be qualified as a heterogeneous stage, with three distinct ten-year periods phases ultimately culminating in the reforms of 1990.

- **The standby city (1960-1969):** Marked by cautious urban development.

⁷ Harat is grouped vernacular multifamily rental houses were introverted and organized around a courtyard

- **The accelerated city (1970-1979):** Housing and industrial growth as a modus operandi.
- **The city under laissez-faire (1980-1989):** Maintained accelerated development, defined by laissez-faire and gradual state disengagement.

The stage begins with the completion of the Constantine Plan (1958). The state was prioritizing other pressing issues. Sétif, the closed city inherited from the colonial era had spread along the RN5 national road axis in a sprawled, discontinuous and scattered urbanization, began the opening and redrawing development to "radioconcentric" system favorable to boulevards and thoroughfares' extension principle, referring to the urban planning studies conducted before independence by Henri-Jean Calsat (PUD 1959), Pierre Dautrevaux (PUD 1961) and Philippe Vili (PUD 1962).

A better understanding of "Urban development" is key to deciphering "Redevelopment" or "Urban renewal", we must consider the presence or absence of the urban plan, compliance or non-compliance to the plan and effectiveness, the policies implemented, central or down-top urban governance and supporting legal framework, programs and actions undertaken, as well as local particularities observed.

The city grew from 300 hectares of urbanization in 1960 to 2,100 hectares in 1989.

1.2 The Standby (1960-1969)

In the decade following Algeria's independence, Sétif experienced significant urban and demographic shifts that mirrored the final years of the colonial period. The city faced the consequences of colonial policies, particularly the Constantine Plan of 1958 that was seen as sufficient workload, and the earlier wave of active urbanization that began in 1930. Initially, Algeria's political focus was on national reconstruction, which delayed comprehensive urban planning efforts including housing programs as the state believed the vacant housing stock was adequate to meet demand.

Sétif, already an administrative capital by 1956, was reaffirmed as the capital of the wilaya (province) in the first administrative division of 1963 with an enormous territory before the second administrative division of 1967. This status enabled significant public buildings services, and industrial urban initiatives, although the city struggled with integrating the influx of rural migrants and the departure of Europeans minority.

Before independence, Sétif's urban form was shaped by its agricultural and pastoral economy, lacking significant industrial activity. The city's development was primarily driven by its role as a commercial hub and administrative center. The urban landscape was characterized by a mix of well-planned neighborhoods and informal settlements. Dautrevaux's plan (PUD) categorized the urban form into five types (Chorfi, 2019) p 186:

- **City center:** The original orthogonal grid with multi-story aligned houses.
- **Neighborhood-like Districts:** Orderly streets with decent housing (Levy, Railwayworkers...)
- **Dense Habitat:** More or less orderly areas (Burdin, Genty).
- **Spontaneous Neighborhoods:** Unplanned, often substandard housing, particularly in Yahiaoui (Tandja).
- **Scattered Vertical Housing:** Notable in districts like la Pinede.

The urban landscape was further influenced by the city's administrative status and the legacy of colonial infrastructure, such as military land reservations, which hindered cohesive development. Nonetheless, the city's central role on the Bejaia-Batna axis and its ambitions as a regional hub drove continuous urban evolution. Dautrevaux's PUD anticipated these changes, emphasizing the need for a flexible urban plan that could adapt to evolving economic and social conditions.

Sétif emerged as a fragmented yet dynamic city, balancing its historical roots with the pressures of modern urbanization and demographic shifts.

1.3 The Image of Sétif City: 1962 PUD

A slowdown in urban extension is relative and especially one-sided. Ordinance No. 62-157 of December 31, 1962, tending to reconduct, until further notice, the legislation in force in its aspects not constrained by national sovereignty. The program was practically limited to completing the Constantine Plan and introducing the pre-plan or three-year plan.

Moreover, through a comparative analysis (Table 1) of the pre-independence PUD studies in 1959 and 1962, we are trying to uncover urban renewal roots deemed in the prospective city structure:

Approach	CALSAT (1959)	DAUTREVAUX (1962)
Background	Architect and landscape architect	Urban planner
Main concern	Military land reservations	Infrastructure and land use

Approach	CALSAT (1959)	DAUTREVAUX (1962)
Priority	Converting military land reserves to public green spaces	Structuring the city through road infrastructure network
Proposal for military land	Maintain protective tree belt; propose sports center on firing range	Renegotiate to become land reserve for public facilities
Impact	Limited; focus on greening	Structural; enabled major road and public facilities
Strengths	<ul style="list-style-type: none"> -Emphasized quality of life issues -Wanted to maintain heritage sites and walls -Proposed sustainable sports use of military lands 	<ul style="list-style-type: none"> - More practical and implemented results -Unlocked key land reserves - Established framework for radio-concentric growth
Weaknesses	<ul style="list-style-type: none"> - Limited practical impact - Failed to address need for roads and facilities 	<ul style="list-style-type: none"> - Less focus on public green spaces - Supported demolition of old city walls

Table 3 Comparative analysis between PUD 1959 and 1962

Source: Author, 2023

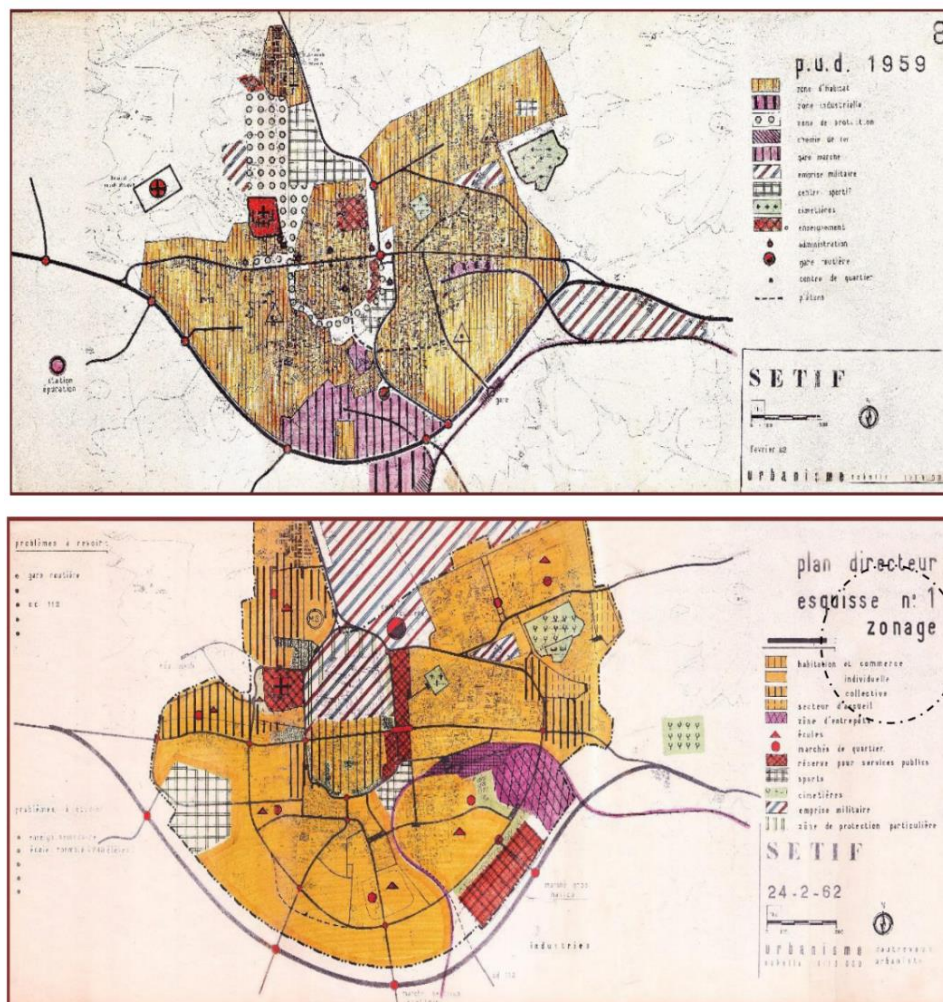


Figure 40 PUD 1959 and PUD 1962

Source: (Chorfi, 2019 p 307)

Calsat, landscape architect, focused on the military land reserves around Sétif, considering them as an obstacle to the city's development.

His priority was to humanize the city by converting these military lands into public green spaces and sports areas. Despite his efforts, this approach had limited practical impact (figure 6).

In contrast, urban planner Dautrevaux focused on structuring the city with an integrated network of road infrastructure. He proposed the military easement around the old city walls to create a land reserve for major public facilities. A key proposal with structural impact, enabling the construction of a ring road boulevard around the old city and new government offices, which helped connect and shape Sétif's urban growth (figure 7).

The key urban planning steps for Sétif based on the pre-independence studies by Calsat, Dautrevaux and Villi:

- **Closing the Ring of the First Crown**

The completion of a ring road boulevard around Sétif's historic walled city (intramuros) was a crucial urban planning achievement. This action reinstated the prominence of the Intramuros, aligning with Camillo Sitte's principle of replacing city walls with a ring road synonym to urban development. This intervention, part of Sétif's colonial-era urbanization, played a key role in redefining the city's layout as formalized in Dautrevaux's 1962 master plan.

- **From Radio-Concentric to Linear Sprawl**

Dautrevaux proposed repurposing the military easement encircling the intramuros into reserved land for public amenities, aiming to organize city's expansion and connect existing and emerging areas. However, this period saw there increased density in informal settlements around Andréolli and Yahiaoui, and unregulated growth by private owners in areas like Bounecheda, leading to irregular built environments.

- **Land Banking**

An initiative to nationalize private subdivision lands at Fusillés and Ouled Braham aimed to replace owner profits with future public infrastructure reserves. These assertive measures sought to reinforce SÉTIFs spatial structure by utilizing military and speculative lands for public benefit.

Retrospectively, Dautrevaux's structural approach significantly influenced Sétif's post-independence transformation. However, considering Calsat's concerns about livability and heritage is crucial as the city evolves. An integrated approach that balances infrastructure development, land use efficiency, and quality of life is essential for Sétif's sustainable growth.

2. The City of Industrialization and housing (1970-1979)

2.1 Decongestion of major cities and spatial equity

To address urban congestion and promote equitable wealth distribution and balanced population growth, Sétif was among the five cities chosen for a special urban development program. This significant rupture is a gamechanger in urban planning history of Algeria.

From 1966 to 1979 the city's urbanized area benefiting from a new administrative division in 1974, expanded dramatically from 314 hectares to 1,500 hectares. This expansion was driven by "welfare state urbanism", with state-led urban interventions until the mid-1970s before the active involvement of the private construction sector. A shift to an urban extension model occurred following the implementation of the Special Plan, which included the establishment of an industrial zone, a business park, large housing projects and the connection to the national gas network (1975-1980).

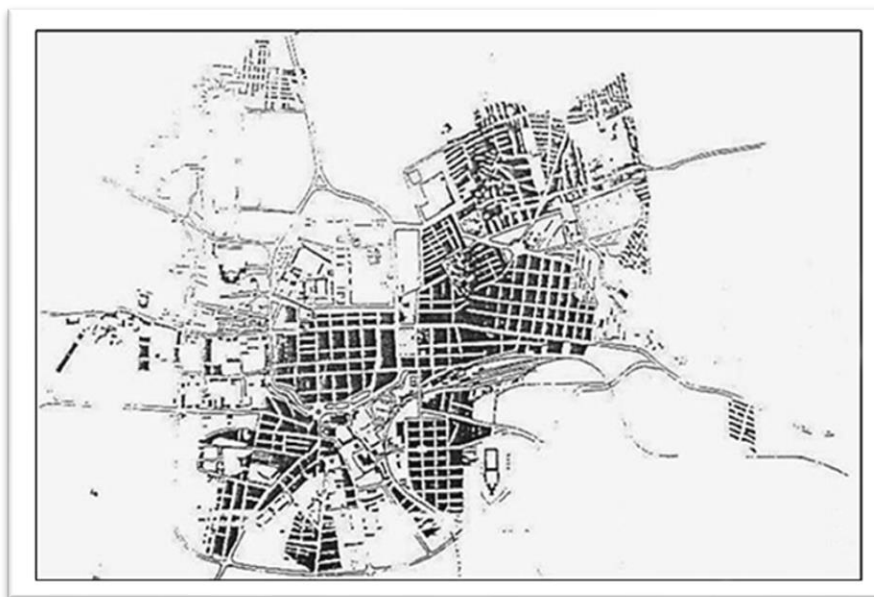


Figure 41: Plan of Setif in 1971

Source: URBASE 2011

The combination of the Special Plan (1970) with the two subsequent four-year plans (1970-1973 and 1974-1977) laid the groundwork for a real city project for Sétif's transformation into a modern city. A pivotal decade of development, urbanization and status confirmation for the city, disrupting its traditional image and role in the region.

The welfare state reinforced its policy establishing tools for land management and urban planning. Most notably Ordinance 74/26 of February 20, 1974, which constituted land reserves for municipalities marking a departure from previous measures since independence.

2.2 Series of Structuring Facilities, Centralities and Neighborhoods

Driven by the decentralization principle, in 1977, Sétif experienced significant urban growth, which mandated the establishment of a Warehouse & Business Area in each municipality. Furthermore, an industrial zone south of the city on 200 hectares. to the prescribed impact study and initial planned location. In addition, a public facilities program came to diversify urban planning; the first processing and production units were implemented as soon as land production was completed in the industrial zone. Key development and facilities are summarized below:

- **Municipality (Provincial) Level Equipments**

Realization of the municipal government building constituted the first conversion of the strategic military land reserve, later equipped through additional public institutions like the Hotel, Museum, Cultural Center, Civil Protection Center, Central Post Office and City Hall (Bendjelid et al., 2004).

- **Western Section Facilities**

The western tract saw foundational facilities including the University campus bearing nationalist leader Ferhat Abbas's name, the May 8, 1945, sports complex commemorating massacre victims, along with juvenile detention and vocational training centers, farmer's market, transportation stations and assorted schools (Belguidoum, 2021).

- **Southwestern Section**

Complementing the major industrial zone, the southwestern wing hosted educational zone facilities encompassing technical, secondary and middle schools, plus a Warehouse & Business Area Park (Semroud, 2001).

- **Private Sector Involvement**

unlike most Algerian cities under socialism, Sétif's considerable private construction sector involvement confirmed and extended its longstanding entrepreneurial vocation while delivering this sizable facilities program (Bendjelid et al., 2004).

- **Infrastructure Modernization**

Modern energy access was achieved through the 1975 municipal gas network integration, enabling distribution and household connectivity citywide by 1980 (Belguidoum, 2021).

2.3 The role of Housing on urban development and transformation (1970-1979)

2.3.1 Urbanization approach and challenges

From 1970 to 1979, Sétif experienced significant urbanization influenced by the colonial Constantine Plan. Large residential complexes were built in the city's periphery, altering its pre-1930s spatial structure. This phase of urbanization prioritized interconnected networks and mass planning principles, leading to rapid but uncontrolled urban growth and distortions in peripheral neighborhoods.

2.3.2 Incomplete Development and Industrial Focus:

These extensive residential areas often lacked adequate public spaces and amenities, becoming traffic conduits plagued by incomplete housing and exposed sanitary issues (Madani & Diafat, 2010). The emphasis was on the quantity of housing units, with industrial architectural models dominating, resulting in standardized housing.

This phase was marked by a predominance of technique over urban planning, with an industrial architectural model dominating the reality of urban practice. In terms of urban development, only the number of housing units mattered, resulting in normalization and standardization, where the concern for quantity took precedence over the production of quality (Madani & Diafat, 2013). Key phase of urban development are summarized below:

1. **Challenges and Dysfunctions:** Large scale housing developments lacked necessary facilities, leading to neighborhood dysfunctions, marginalization, and the emergence of dormitory cities that threatened the city's economic stability.

2. **Population Influx and Urbanization** : Industrial activities drew and unprepared population influx, causing demographic growth to outpace housing development and increasing anarchic housing.
3. **Political Will and Housing Production**: The second phase (1975-1979) emphasized housing production, accelerating urbanization and newly built environments.
4. **State's Exclusive Role in Housing Development**: The state played a central role in housing development, focusing on social housing and implementing the Zone of New Urban Habitat (ZHUN) in 1977. This initiative in collaboration with the Hungarian consultancy TESCO, structured the development of over 9,000 housing unit across 263 hectares.

2.3.3 Strategic Urban Planning and Implementation

The establishment of ZHUN marked a pivotal development in the city's urban planning and growth. Developed through a partnership between local authorities and the Hungarian consultancy TESCO, the ZHUN entailed comprehensive infrastructure development and assessment to facilitate organized city expansion.

1. **Land Selection and Symbolic Integration**: Large developments aimed to integrate areas like Bel air into the city, highlighting their symbolic importance.
2. **Territorial Generation and Urban Reconquest** The land selections and master plan concepts led to the creation of new territories "empty pockets", targeted for
3. **Implementation of Large-Scale Housing Programs**: Programs along the RN5, such as the 150 units Rebbouh housing estate, extension of the 750-unit estate to the west, and clustering of three housing programs (494 units in Maâbouda) on the western slope of the city. 1,000 units in the southern part, on the spatial fringe between the city and the industrial zone.
4. **New urbanization logic**: This period marked a shift from classic urban extension to new urbanization on untouched sites, guided by the Dautrevaux Master Plan's principle. The ZHUN consolidated the road network and integrated essential services, preserving agricultural lands through radioconcentric growth. Combination of quadrennial plans led to the implementation of a substantial
5. **Rejection of Existing urbanization**: New urbanization in the south aimed to stop illicit constructions and manage the existing fringe, with a resulting interstitial margin between the two entities, creating future urban reconquest opportunities.



Figure 42: 1,000 Collective Housing Units (South)

Source: <https://www.istockphoto.com/fr/photo/vue-a%C3%A9rienne-de-s%C3%A9tif-alq%C3%A9rie-qm1267000344-371596430>

2.3.4 Long-term implications:

The urbanization approach led to the spatial division of territories into monofunctional zones, with governance based on urgency and acceleration often preferring fragmenting high-value agricultural land over difficult sites. Initially focusing on private and individual housing, policies later shifted towards collective housing within the ZHUN, and setting a precedent for Sétif's coordinated urban planning.

The 1970s left an indelible mark on the city's history and development, propelling the city from an agricultural hub to an agro-industrial powerhouse, ensuring accommodation for the required workforce, setting the foundations of a modern city that began to emerge.

3. Is laissez-Faire and Expansion a Management of Housing Crisis? (1980-1989)

The 1980s marked a significant turning point for Sétif, as it faced a housing crisis that drastically altered its urban landscape. A shift in political ideologies led to a new liberal policy promoting individual housing. Consequently, over 60% of large privately developed areas within the city, including the ZHUNs (Zone à Habitat Urbain Nouveau), were converted into social and promotional housing developments, delineating a meticulously

planned urban area, primarily for the affluent socio-professional classes. This shift resulted in rapid urbanization and territorial expansion and its consequential impact manifested in the creation of the city's third ring.

In response to the housing crisis and the decline in social housing production, the state adopted a laissez-faire approach, focusing on real estate promotion and self-construction cooperatives. This approach aimed to address the housing shortage and meet the demand for individual housing, particularly villas. However, the city's strategic initiatives encompassing restructuring, renovation, and embellishment laid the ground to housing transformation and densification and early signs of urban renewal in these pericentral neighborhoods. Furthermore, informal construction on agricultural lands became prevalent, leading to incomplete and unregulated structures described as "informal," "illegal," "spontaneous," and "precarious." The following parts examine these pivotal actions illustrating their impact on the broader city particularly pericentral neighborhoods.

3.1 Restructuration of a Boulevard opening a "Closed" City."

During the 1980s, Sétif underwent major urban restructuring to address rapid and disorganized growth. The city expanded radially from its core, making the existing center inadequate for the growing population. To address this, new neighborhoods were developed to distinguish between the historic inner city and newer urban areas. A key part of the restructuring was the implementation of the "TESCO" masterplan, introducing a network of primary axes, structuring different sectors particularly in the northeast.

The hierarchical road network in Sétif was reconfigured to prioritize functionality with high-speed primary axes, secondary axes, and access roads. Critical investments were made in developing boulevards and primary infrastructure to improve accessibility, movement, and enhance the city's transportation system aiming to accommodate future demographic and economic growth.

The TESCO plan transformed access roads into vibrant commercial boulevards lined with arcades, driven by political, economic, and ideological factors. Private developers favored urbanized sites over extensions due to lower costs and high land values.

Despite these efforts linking and improving, new neighborhoods infrastructure inadequacies from high car usage and incomplete development have hindered Sétif's evolution into an "open city," necessitating balanced development across urban sectors.

3.2 Sétif ZHUN highlights

The ZHUN study in Sétif revealed key insights:

- **Limited development potential:** Development is limited due to an industrial zone and high-yield agricultural land in the south, market gardens and pastures in the west, and flooding constraints in the Oued Bousselem valley.
- **Expansion possibilities:** The north and northeast are viable expansion options, leading to the design of sectors A, B, C in the north, and sectors E, F, G, H, I, and J in the northeast.
- **Land consumption from 1977 to 1988:** Increased from 839.8 hectares to 1335.1 hectares, driven by housing programs, municipal subdivisions, and the ZHUN program, averaging an annual increase of 49.5 hectares per year (URBASE, 2010).
- **Residential integration:** The ZHUN integrated with the existing city through residential subdivisions, promoting individual villa housing and converting sectors like ZHUN II from collective housing to real estate cooperatives. A total of 30 cooperatives were allocated, comprising 774 building lots.
- **Housing typology:** Individual housing surpassed collective housing, indicating a preference for detached homes over apartments.



Figure 43: Subdivision Bouaroua 937 individual housing unit "Dallas"
Source: https://fr.wikipedia.org/wiki/S%C3%A9tif#/media/Fichier:Setif_Dallas..jpg

- **Impact on social housing:** Promotional housing was more prevalent than social housing, which was allocated to various social classes, not exclusively the underprivileged.
- **Early adoption of real estate promotion:** The authorities in Sétif took an innovative approach by adopting real estate promotion as a pilot action even before relevant laws were enacted. This decision allowed for the appropriation of high-potential lands from the city center towards the outskirts, fostering development in previously underutilized areas.
- **Promotional housing and public facilities:** Eighteen developers participated in constructing 682 promotional housing units along TESCO-designed access servitudes. However, public real estate promotion experienced delays, and the pace of constructing public facilities did not keep up with housing development, resulting in a facilities deficit.
- **Challenges in education and inadequate amenities:** Rapid population growth led to inadequate educational facilities, overcrowded classrooms, and dormitory cities lacking essential amenities like green spaces, playgrounds, and meeting places, contributing to social issues.

- **Unfinished exterior developments and the issue of saturation:** Incomplete exterior developments left vacant lots between isolated residential buildings, creating a landscape of perpetual construction sites. The Urban Development Plan (PUD) highlighted saturation issues, as the plan did not account for additional territories planned for urbanization.

3.3 Renovation initiatives:

Sétif initiated renovation studies for the neighborhoods of Bizar and Andréolli before decree 83-684, establishing interventions on existing frameworks (ITUE). These actions involved relocating Haras residents to new social housing areas, engaging in a dedensification operation at the Haras level, and eradicating indecent dwellings in the Haras faubourgs RHP⁸ program.

The settlement and densification of Haras were significant during colonial times and increased post-independence. The URBA Sétif study aims to redevelop neighborhoods like Bizar, transforming them from insecure and indecent areas to modern and efficient city centers. This transformation created new centrality in the Bizar neighborhood, leading to the demolition of shackled houses and the relocation of the population to agricultural villages in the south and the city of 500 housing units in the north.

The restoration of the Bizar neighborhood is a lesson in urbanism (Chorfi, 2019), presenting the urbanization of large ensembles and incorporating educational equipment, all isolated from the city center and separated by the unhealthy territory of Andréolli. The new centrality now ties the city center with all urbanized areas downstream.

3.4 Restructuring and Embellishment

The Urban Restructuring and Embellishment Authority (URBA Sétif) has conducted in compliance with the directive 83-684 issued on November 26, 1983, a range of studies to address urban challenges and improve the city's urban fabric.

- **The initial study:** carried out to examine the city's autonomous significance in the Yahiaoui neighborhood "ex-Tandja", which was considered not only detrimental but a city's cancer in 1958, involving infrastructure improvement and integration through road network restructuring (Road, Zaâbat, Boulevard Port Said and

⁸ Resorption of precarious housing program (Resorption de l'habitat precare)

Boulevard No 02), the drainage of the Oued de Bouaroua, housing network and exterior developments.

- **The second research:** conducted to examine the illicit development of a substantial population in the region "Kaâboub." The intervention prioritizes, the provision of amenities such as sanitation, drinking water supply, electricity and gas.
- **The third study:** conducted under the "Urban management" map, investigates the incorporation of sis-based cities within ex-faubourgs that have seen insufficient development and integration notably Diar Nakhla and 750 housing units. Most of the actions focused on renovation of building roofs, the installation of new equipment, the revitalization of the place, and the enhancement of the neighborhood's fabric.
- **The fourth study:** focuses on the development of a mixed-use tourist complex on the East and West entrances of Sétif including outdoor spaces, stone-countenancing walls, and a public garden. The projects that have been converted into individual and collective housing complexes.

3.5 Major renewal operation of the military quarter

The transfer of ownership of the military quarter site from the Algerian National People's Army (ANP) to the Wilaya of Sétif in 1977 facilitated one of the most profound urban transformations within the city of Sétif. This highly symbolic settlement, initially established during the French colonial period (figure 13), underwent expansions that revealed remnants from various eras following archaeological excavations in the intramural area. The decision to embark on "Urban Renewal" received official endorsement after the Directorate of Fine Arts, Monuments, and Sites sanctioned the establishment of an archaeological and leisure park at the city's heart. It is noteworthy that this initiative predated the widespread adoption of urban renewal and urban project as pivotal concepts in urban planning.

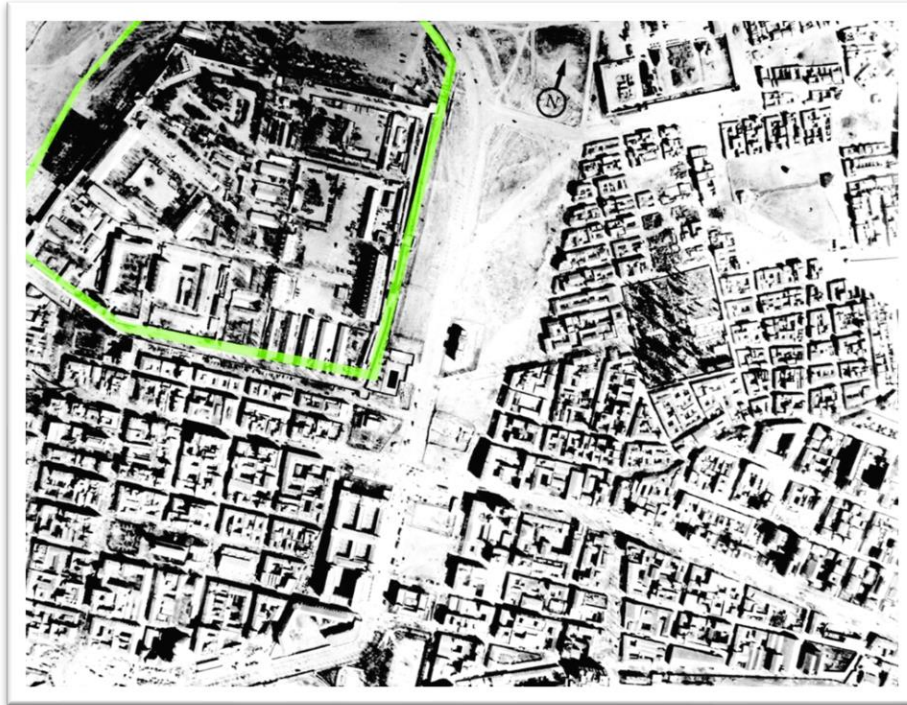


Figure 44: Aerial view of former military barracks around 1920.

Source:

The execution of this emblematic project involved the following key steps:

3.5.1 Leveraging Local Decision-Making Processes:

- The authorities of the Wilaya of Sétif utilized local decision-making processes.
- This approach ensured the successful completion of the project without a pre-existing regulatory framework.
- It marked a shift from traditional, centralized approaches towards more localized and participatory forms of urban governance.

3.5.2 Preservation of Green Spaces:

- After construction clearance, a green belt of 35 hectares was preserved for ecological and landscape considerations.
- This green belt bridged the isolated Bel Air settlement to the city's heart through an anti-colonial and inclusive approach.

3.5.3 Complex Intervention and Concurrent Initiatives:

- Several factors, including its prime location in the historical center core, rendered the intervention complex.
- The project was intricately linked with concurrent and successive initiatives within the same site and its nearby surroundings over an extended duration.



*Figure 45 Urban renewal of colonia military barracks to Urban Amusement Parc
Source: Google earth 2024 edited by the author.*

3.5.4 Enhancing Land Value and Attractiveness:

- The incorporation of green spaces not only enhanced the city's vegetation coverage but also its land value and attractiveness.

3.5.5 Foundation for Subsequent Regeneration Initiatives:

- This case study from the 1980s provided a solid foundation for subsequent regeneration initiatives, notably the development known as "Park Mall Sétif".
- It underscored the imperative for integrating urban projects within the framework of contemporary urban governance.

This major renewal operation of the military quarter exemplified a shift towards more localized and participatory urban governance, while preserving green spaces and enhancing the city's attractiveness. It set the stage for subsequent regeneration initiatives and highlighted the need for integrating urban projects within contemporary urban governance frameworks. This project was renovated lately to enhance the city's dynamic and stay in the race as an integral part of the Park Mall Mixed use urban project (see page xxxxx).

3.6 Real estate development:

The international changes and the decline in oil prices in the late 1970s impacted the construction industry and exacerbated the housing crisis. This situation puts immense pressure on housing policy, catalyzing debates on the role of the private sector in economic development strategy confronting the monopoly of public enterprises with the liberalization of the construction sector.

Quality-oriented private real estate development, contrasting with the quantity-driven public housing projects, present a proactive approach the initiative-taking of local authorities in Sétif initiating the diversification of promotional housing projects production even before the enactment of Law 86-07⁹ as a legislative milestone. Including a new family housing promotion company (EPLF) and private real estate promotion, this real estate development law expanded the range of developers to nearly twenty, allowing any legal or natural person with the requisite financial and technical capabilities to engage in construction activities, securing prime locations and contributing to urban development, embellishment. Moreover, the city's rich background in private real estate development and developers mindset, significantly contributed to the acceleration of the speculative neighborhood renewal in pericenter.

First: the allocation of small projects to private developers was a strategy that allowed the municipality to assess their abilities and this possible innovative approach on urban development.

Second: private real estate developments have not only shaped the city's landscape but have also introduced high-end housing models that stand out in terms of space, functionality, and high-material quality. this shift has accommodated a diverse

⁹ Law 86-07 of March 4, 1986, authorizing the private real estate development

demographic, including immigrants, and constitutes an unprecedented architectural and typological phenomenon.

Finally: Gaps and inconsistencies in the regulatory framework marked the implementation phase and led to cohabitation conflicts and disputes between private and public, urged the need for a more coherent and precise regulatory legislative framework.

4. Urban control from (1990-1999)

This decade has been characterized by control in urban governance, as local authorities successfully curbing spatial expansion for the first time. This local effort was part of the broader national strategy, integrating debate, and measures aimed at masterful urban planning. The implementation of new urban planning instruments ¹⁰ under new regulations demonstrate a commitment to controlling urban expansion and rationalization of land use reducing agricultural land fragmentation meeting evolving needs in large cities through governance and management and catch up on a long period of laissez-faire.

The construction sector has successfully mitigated the impact of the economic crisis by maintaining its growth trajectory and emerging as a significant capital-holder often recycling untaxed urban fortunes (Messahel, 2014). The private sector left his fingerprint propelling the city of Sétif to a highly desirable location, becoming the exclusive partner in urban governance due to reforms and the collapse of public enterprises.

Currently applicable urban planning instruments include the Master Urban Plan (MUP) and the Urban Development and Planning Plan (PDAU) and the Land Use Plan (POS). However, despite the non-conclusive new municipal authority attempt to furnish and restructure the city, the lack of a comprehensive urban planning document has resulted in unregulated urban phenomena throughout this decade. The Wilaya's technical committee aimed to tackle the substantial land strain resulting from the imperative for urbanization, mandated the production of a novel cartographic representation known as the "Map of empty pockets" (Chorfi, 2019). The problem of delayed urbanization in satellite areas surrounding the city of Sétif has been acknowledged and addressed as the project progresses.

¹⁰ Law No 90-25 on land use planning and law No 90-29 of December 1, 1990, relating to planning and urban development



Figure 46: Setif in 1992
Source: URBASE 2011

The approved PDAU in 1997 simply legitimized the urbanization that had already occurred in the preceding decade as an accomplished fact. Mekhachene (2016)¹¹ questions if it was not tools crisis instead of land use crisis when citing some orientations and expectations:

- Consider existing urban form and neighboring industrial/agricultural activities.
- Revalue and protect agricultural potential in southeast and north areas.
- Improve varied structure to better connect different uses.
- Control and organize peripheral agglomerations: Farmatou, EL'Hassi, Ain Trick, Ain Sfiha.
- Reinforce current structure by improving existing fabric and integrating new sites.
- Develop transportation/circulation plan to improve territorial connectivity.

The project failed to account for spatial growth, such as the construction of the third ring, by including only a small portion of privately owned property measuring 300 hectares and

¹¹ Mekhachene Nourdine, Magister thesis « LA MAITRISE D'OUVRAGE URBAINE, VERS UN DISPOSITIF DE GOUVERNANCE DES PROJETS URBAINS EN ALGERIE CAS DU PLATEAU ELBEZ A SETIF », University Constantine 3, 2016, p 122

110 hectares for university campus in el Bez, even though the expected requirement was 1,600 hectares.

4.1 Densification and consequences of urban control

Urban control as a response to urban expansion and sprawl has profoundly impacted urban practices over the past decade. This initiative has sparked the development of various programs, including emergency measures, land promotion, and investment efforts. Consequently, densification as an alternative strategy for urban development arose from the depletion of the city's remaining land reserves, facing increasing land scarcity and the pressures of real estate valuation.

This aggressive pursuit of available spaces shaped a situation of stringent land shortage posing significant challenge to urban stakeholders. Initially, these stakeholders are compelled to negotiate interstitial spaces, urban margins, and previously overlooked empty areas, bypassed during periods of spatial expansion. Adaptation to limited resources arise as a new paradigm in urban planning for Sétif, driving innovation in the utilization of urban space.

In the last decades, Sétif has encountered considerable socio-economic challenges, enabling the introduction of a revised governance model, aimed at fostering urban development while curbing excessive spatial expansion. This model emphasizes the integration of neighborhood committees, the consultation and active participation of associations, and land sanitation efforts aligned with contemporary regulations. Housing densification efforts through various social rental housing programs under the 1997 emergency program resulted, have exhausted available water reserves, leading to significant water stress, and emphasizing the necessity for densifying existing urban areas illustrating the trade-offs involved in urban development strategies.

Although postponed urbanization strategy presents densification as a complex challenge, it highlights the rise of informal urban renewal efforts, which lack regulatory, management, or planning frameworks. Real estate developments proliferated along major roadways, at the expense of public spaces and community areas, overlooking easements, geological and morphological constraints resulting in disruptions in the urban landscape. These developments were often carried out in a directive manner, resulting in unintended and sometimes disconcerting alterations to the urban fabric.

The decade concluded with significant restructuring efforts, including the post-construction restructuring of subdivisions and housing cooperatives. For instance, the ambitious renovation project in the Andréolli district enabled slum clearance and initiated a new housing program, following a long period of passive or laissez-faire attitude that anchored speculative operations in high-value potential areas where demolition and reconstruction became the *modus operandi* in neighborhoods of rich architectural and historical assets. The process of ZHUN densification, driven by subdivision initiatives and real estate cooperative housing programs, raises significant concerns regarding the city's future and its capacity to offer sufficient amenities and non-residential resources to its population.

The absence of a long-term vision in urban planning practices is evident, indicating a critical need for strategic reorientation through innovative approaches. Despite the presence of a legal framework intended to guide urban development, the prevailing situation represents a paradox, highlighting the disconnect between policy and practice in the realm of urban renewal and development.

5. Escalation of Urban Velocity (2000-2014)

Since the end of Algeris's "dark decade," Sétif has experienced a resurgence of urban sprawl and urbanization spurred by the state's role as an active builder and investor during a financially prosperous period known as "croissance." This period witnessed a departure from previous urban control strategies, adapting to new political, economic and security contexts.

In response to this transformation, the 2001 Economic Recovery Support Plan (PSRE) followed by two consecutive five-year plans (2005-2009 and 2010-2014), and executive Decree No. 2003-208 that prompted a critical revision of the Urban Development Plans (PDAU), particularly for cities like Sétif. The was aimed at accommodating projected population growth to 402,500 by 2023, requiring 37,511 additional housing units across 1,246 hectares. Strategic expansion sites identified in the original PDAU included Chouf Lekedad plateau, El bez, Ouled Saber, and Gaoua. These were completed by initiatives to optimize urban plans through neighborhood renewal and reclamation efforts (Mekhachene, 2016). However, a critical land shortage emerged as a substantial obstacle, with the PDAU's sectoral urbanization projections failing to meet the high demand. This shortage was exacerbated by a decade of urban saturation and depleted communal reserves, which impeded comprehensive development goals, posing a substantial

obstacle to the economic recovery program's advancement. The PDAU's sectoral urbanization projections fell short of meeting extensive demands, exacerbated by a decade of urban saturation and diminished communal reserves, ultimately impeding comprehensive development goals. As a strategic pivot, urban expansion targeted plateaus like Ouled Saber and Ain Arnat, marking a shift from previous control-oriented policies to accommodate Sétif's increasing urban footprint during subsequent five years plans.

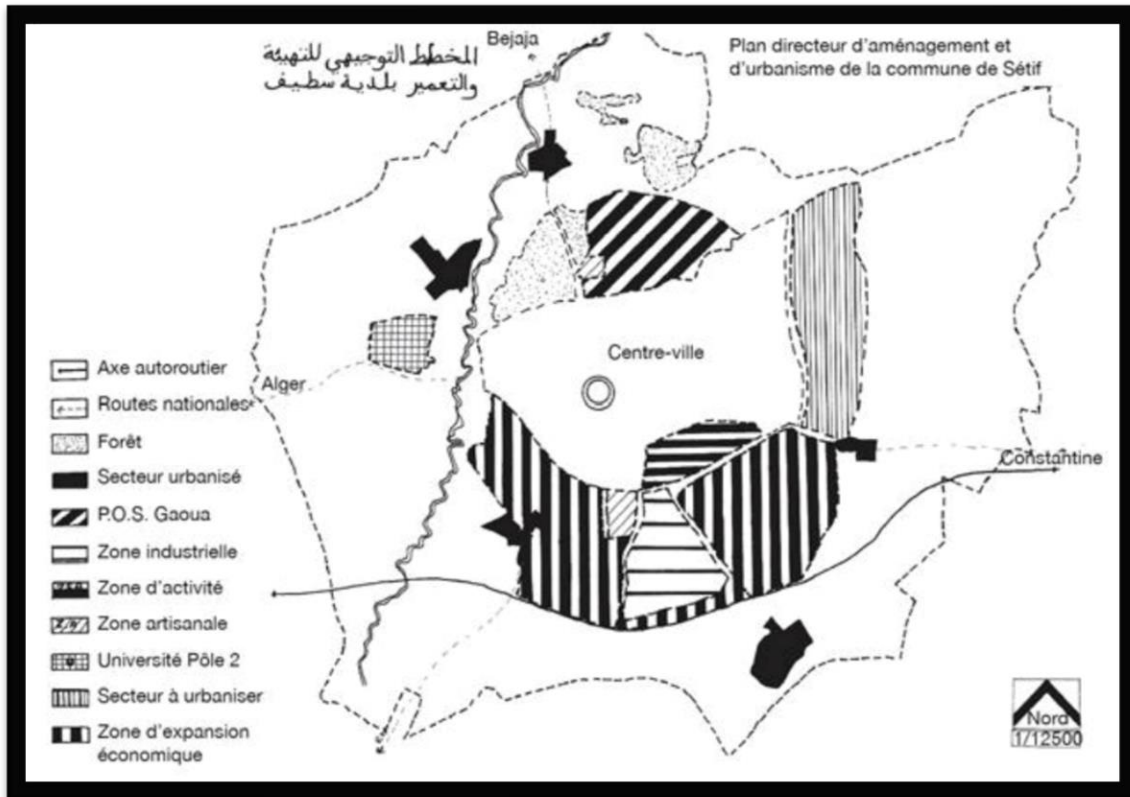


Figure 47 PDAU of Sétif

Source: <https://popups.uliege.be/1780-4507/index.php?id=2128>

The expansion, however, unfolded with inadequate coordination, leading to unplanned multidirectional sprawl, and doubling the urbanized area to 4,200 hectares over two decades. The growth of private developments, especially in Ain Sfiha post-2007 cadastral reforms, further amplified land tension due to increasing investment and residential demands. This led to a fragmented development pattern around the city, muddling the urban fabric.

These structural transformations, while improving housing quality and public amenities, introduced complexities that necessitated a comprehensive review of the PDAU to harmonize land reclamation with urbanization needs and ensure territorial equity. The aftermath of the Arab Spring in 2011 further propelled urban sprawl as housing was increasingly viewed as a public utility, leading to private land expropriation and highlighting challenges of suburban disorder and spatial mismanagement.

5.1 Intercommunal Strategy and Population Management

The 2010 Urban Development Plan (PDAU) for Sétif and its neighboring communes (El Ouricia, Ain Abessa, Ain Arnet, Mezloug, Guedjel, Béni Fouda, Ouled Saber) embarked on an inter-municipal approach, yet it manifested an intercommunal concept confined within restricted spatial and administrative realms. Despite the plan's encompassing perimeter, it meticulously preserved the communes' individual boundaries, financial independence, and legal identities, effectively avoiding the establishment of the formation of a cohesive governance entity. This preservation of autonomy and avoidance of integrated governance mechanisms or shared decision-making powers among the communes stemmed from a primary objective: management of projected population growth in Sétif by strategic relocation of populations' surplus to adjacent communes.

The PDAU's response to the demographic and spatial challenging diagnostic indicating imminent depletion of Sétif's peripheral land reserves, necessitating expansion into surrounding areas to sustain urban growth and population dispersal harmoniously, was a meticulously structured inter-municipal framework that sought to balance regional coordination with the respect for individual commune autonomy.

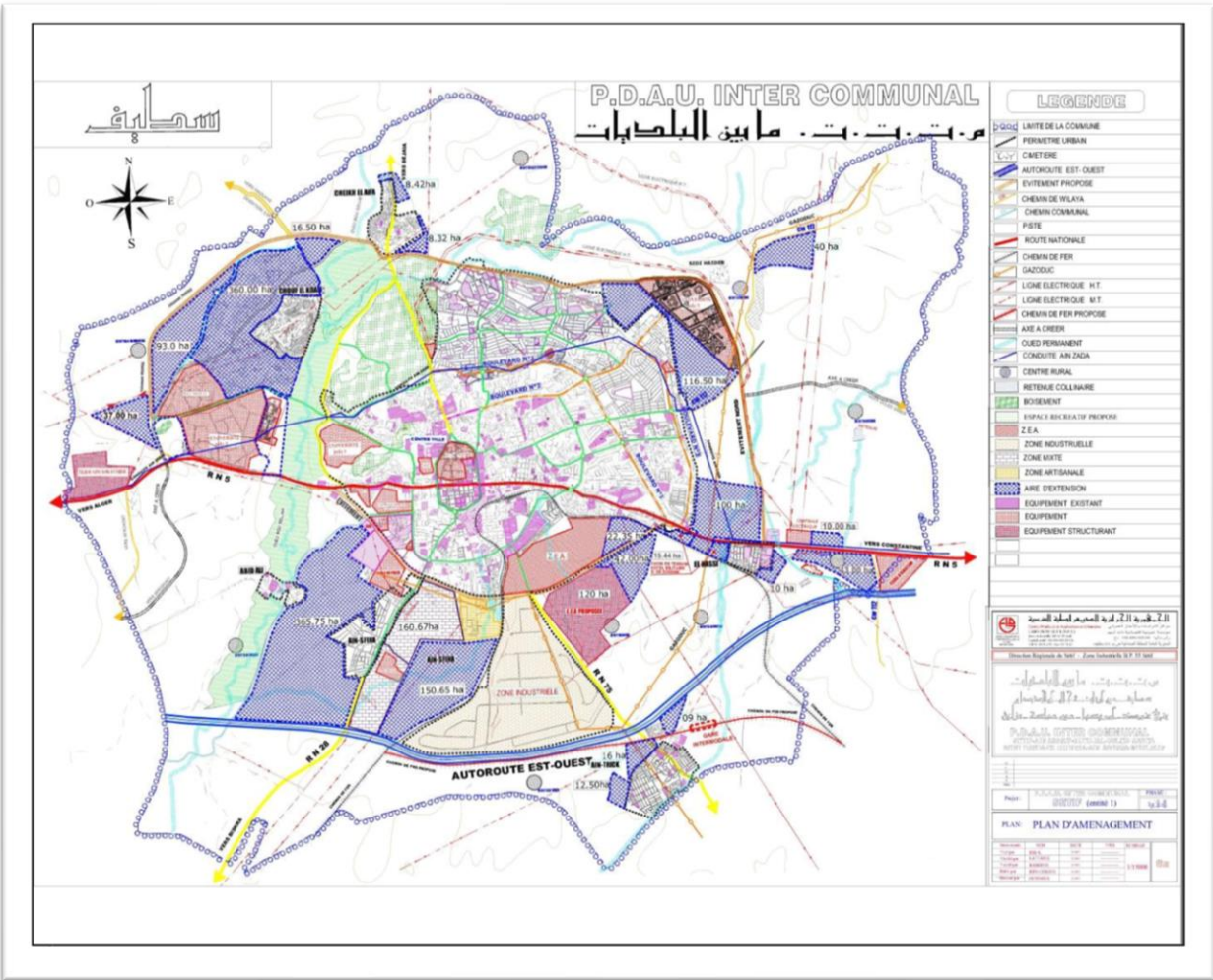


Figure 48 Intercommunal plan of Sétif 2012
Source: URBA Sétif

By allocating land in surrounding communes for future development, the plan aimed to distribute demographic pressure, ensuring Sétif's expansion did not overtax its own land resources. This strategy presents a nuanced approach to urban planning that accommodates growth through collaborative regional planning, emphasizing the importance of strategic anticipation in land allocation and urban development.

5.2 Governance and Urban Development Dynamics

The evolution of urban development in Sétif's province has been notably inconsistent, with the administrative tenure of four successive governors or Walis, exhibiting variations reflecting distinct urban development patterns of different leadership styles. While the first Wali appointed by the new President Bouteflika (1999-2004), prioritized combating land resource dilapidation, engaging strict controls on real estate cooperatives and land

acquisition, the intensified urban development activity corresponded to the passage of second Wali (2004-2010), reminiscent of the dynamic period from 1984 to 1987. This pattern suggests a need for an analytical review of how (Top-down) governance changes align with government economic programs and impacts on urbanization trends.

Nevertheless, during the first period, unprecedented significant actions such as the demolition of the Andréolli neighborhood marked a proactive stance against land speculation. This political move, aimed at eradicating a neighborhood that dates to colonial era without a technical renovation plan, resulted in the displacement of families, subsequently accommodated in newly constructed housing units. A portion of the reclaimed land, part of the state's private domain, was swiftly allocated to the OPGI of Sétif for the construction of a premium housing project, indirectly addressing land speculation concerns. A real estate development comprising 340 housing units materialized on this parcel of land, catering to a financially secure demographic, without due consideration for the displaced population that had previously inhabited the area.

Moreover, with aspirations to cultivate it into a pivotal structural project, the development of the El Bez plateau into the University Ferhat Abbas Sétif 1, a promising academic hub offering 35,000 educational spaces and 8,000 residential beds over an expanse of 120 hectares, exemplifies strategic urban interventions.

Notably, this project, outside the PDAU's designated urbanization sectors, aligned with Article 23261 of Law 90-29, emphasizing a strategic approach to non-urbanizable zone development for educational purposes, ensuring compatibility with the overarching economic objectives of these territories.

In conclusion, these developments, it is evident that the urban fabric of the city is being woven through a complex interplay of governance, strategic urban interventions, and the overarching socio-economic imperatives of the region.

5.3 Urbanization by Participatory Housing (Hidhab 2)

The interventions associated with the POS in urban planning have generally maintained the status quo, with boulevards dominated by collective housing and interior for real estate, interspersed with sporadic facility developments. However, these facilities often lag behind housing construction due to their dependence on budget allocations at the ministerial level (Rahmani Kelkoul, 2023)

East and Northeast regions hosted an urban expansion systematically managed through governmental interventions, introducing a new housing strategy targeting various groups. Initiated between 2005 and 2010, the strategy introduced is a subsidized real estate promotion scheme called Participatory Social Housing (PSH). Designed to counter urban sprawl in Hidhab by establishing foundational road infrastructure, residential spaces, and essential facilities.

The subsequent phase, called the LSP Hidhab 2 project, began with the relocation of high-voltage power lines, incorporating real estate marketing, local amenities, a public square, and a large public garden. the project has been successful with urban residents for its completion and superior architectural quality, methodical urban planning, and integration into the existing urban fabric. Located in non-urbanizable zone, the POS Hidhab 2 project bypassed standard diversion procedures through a regulatory exemption making agricultural domain land urbanizable under decree 2622003-313. The regularization POS was approved by the Municipal Council in 2005, marking a significant milestone in regional urban planning and development with 25 hectares urbanized and 2334 social housing units (Chorfi, 2019).



Figure 49 Development plan of Hidhab 2
Source: URBASE edited by author

The financial model of this housing development is characterized by a balanced economic equation with state support, profits generated by developers, contributions from subscribers, and financing through banking institutions (Heraou, 2012). However, prompted by a surge in demand, constrained supply, and the Arab Spring turmoil (2011), the original financial model encountered challenges, notably for the primary and secondary infrastructure networks, construction of local facilities, leading to a strategic shift away from previous subscription methodologies in response to public disapproval of subscribers' practices (Chorfi, 2019).

5.4 Reaffirmation of urbanization by Participatory Housing (POS Gaoua)

Even though the situation of the various POS is not the same across the city, their design is almost identical (Rahmani Kelkoul, 2023). The privately owned site in Gaoua, designated under PDAU 97 pushed the city's boundaries for the development of the third ring road. However, the subdivision of 300-hectare site by real estate cooperatives during a decade of instability, has confronted the revision of four land use plans (POS 33,34,35 and 36) of the site located along extension boulevard No.1, aiming at recuperation by the state of all privately owned land parcels intending to create a collective housing neighborhood (LSP), reaffirming 70s ZHUN logic (Chorfi, 2019) while ensuring integration to the urban fabric, fostering liveability, mixed use and meeting daily proximity needs.



Figure 50 Global plan 4 POS Gaoua
Source : URBASE edited by the author

Between 2007-2008, the 920 LSP housing units were hosted on 34 hectares, offering educational, religious, and cultural equipment with the. Additionally, a program of 100 DGSN housing units completed an urban boulevard segment of 2.60 km and further enriched the urban fabric.

5.4.1 Reaffirmation of the East as a direction for Extension:

Involving regional cooperation and engaging various stakeholders, a new large-scale development mirrors ambitious plans of local authorities to reaffirm the success of Hidhab 2 and Gaoua operations. The genesis of this project (POS Hidhab East), occupying 83 hectares owned by EAC Houari Boumediene, spanning from the city's eastern edge to the emerging Hidhab University area was notably shaped by a proposal from Urba Sétif prioritizing commercial viability and subsidized housing allocation to address community needs. This resulted in over 3,400 housing units resulted under AADL and LPA programs, reflecting commitment to local priorities despite occupying university grounds.



*Figure 51 POS El Hidhab Est (83 Ha)
Source : URBASE edited by Author*

The initiative acknowledged continuity of construction and anticipation of future projects while highlighting collaborative POS planning with Urba Sétif to coordinate development and site allocation, despite criticism arising from the contradiction with the ecological zone's preservation showcasing complex tradeoffs when balancing urban growth against environmental management objectives through the strategic planning framework adjustments over time. The POS was not formally incorporated any earlier than the 2012 Intercommunal Master Plan (Chorfi, 2019).

5.4.2 Extensive urban development to the North:

The project aimed at promoting urban development in the northern Hidhab mountain range, significantly furnishing and extending Boulevard No. 2 to Hidhab University. Additionally, a new North-South boulevard was introduced, encircling the CFPA Hidhab, further integrating the area's infrastructure. Despite challenges obstructing urbanization arising from private land ownership and the extension of the North Bypass Road, this sprawling initiative, focusing on expanding the subsidized housing program achieved significant milestones and resulted in 1,496 housing units on a 36-hectare site, reflecting a concerted commitment to urban growth and residential accessibility while successfully completing the necessary infrastructure projects such as the South Boulevard that was constructed and formalized by APC Resoulution 479 in 2011 (Chorfi, 2019).



*Figure 52 POS El Hidhab North (32.03 Ha)
Source: Urbase (Edited by author)*

This project exemplifies the efforts aimed at improving living conditions through the Subsidized Promotional Housing (LPA) scheme despite facing constraints related to land ownership and urban planning.

5.5 From Plan to project: A new negotiation process for Development:

From incrementalism¹² to smart growth¹³, structuring urban projects differs from the plan development as a negotiation process that ties connections and meaning to actions of common interest. *"It further marks the intention to implement a new method of project development, breaking away from the functionalist techniques that had been used, notably for the construction of large housing complexes"* (Guerroudj, 2011).

It is worth to mention the relocation of high voltage power lines as a pivotal move that not only facilitated the construction of the second University of Sétif on the periphery but also catalyzed urban development projects on the East and Northeast slopes. This decision shows strategic urban planning by leveraging infrastructure adjustments for broader urban development benefits.

- **University Hub:** Despite the absence of explicit references in regulatory or urban planning documents, the establishment of a university hub with 40,000 educational spots and 14,000 beds across seven campuses illustrates proactive urban expansion. The strategic placement near existing facilities underscores an intent to foster educational and residential clusters, enhancing the city's academic infrastructure.
- **Cultural Hub:** With an expansive 20-hectare layout including diverse cultural and environmental facilities such as a large mosque, an observatory of May 8, 1945, the direction of culture, an open-air theater, a cultural house, a hotel, the environmental house "Dar Dounia", this hub aimed to enrich the city's cultural landscape. The partial functionality of projects like Dar Dounia amidst economic constraints illustrates the hub's potential versus the reality of urban development obstacles.

¹² Small-scale gradual changes over large-scale, comprehensive plans would allow adjustment and continual refinement as explained by Lindblom, C. E. (1959) in his book *The science of "Muddling Through."*

¹³ Supports structuring urban projects to create compact, efficient, and livable cities as explained by Duany, A., & Plater-Zyberk, E. (1991). *Towns and Town-Making Principles*.



Figure 53 Educational and Cultural hub (University Sétif-2)
 Source: Google Earth 2024, edited by the author.

5.6 Growth follows opportunity or/and land availability?

The relentless growth of the city of Sétif in the form of urban sprawl phenomenon is witnessed with its multidirectional expansion especially to the northeast, southeast, and the northwest directions, extending tentacles, encroaching upon vegetation and agricultural land that used to grace its periphery (table 2). relating land cover changes between 1985 and 2021.

Table 3. Changes in the land cover in the city of Setif, between 1985 and 2021

Year	Urban area		Vegetation		Forest		Bareland		Water		Total	
	ha	%	ha	%	ha	%	ha	%	ha	%	ha	%
1985	1,359.58	10.38	10,008.52	76.39	660.42	5.04	1,051.82	8.03	21.29	0.16	13,101.63	100
2003	2,654.26	20.26	8,625.35	65.84	570.31	4.35	1,243.65	9.49	7.6	0.06	13,101.17	100
2021	3,890.73	29.70	7,268.95	55.49	297.56	2.27	1,642.26	12.54	1.68	0.01	13,101.18	100

Table 4: Changes in Land cover in Sétif (1985-2021)
 Source: (Slimani & Raham, 2023)

From 1985 to 2003 saw historic-center-emanation development, with al Hidhab neighborhood and the industrial area representing high potential expansion sites. Subsequently, emerging suburban nuclei began to shape the outskirts, such as Al Hassi and Ain Trik to the southeast, Chouf Lekdad and Fermatou (Cheikh Laifa) to the northwest,

Ain Sfiha to the southwest and the university presinct in the west. These burgeoning agglomerations found their foundations along the main arteries of National Roads 5, 75, 9, and 28.

After this period, the city's tentacles accelerated and spread in all directions, driven by the expansion of the road network and the proliferation of settlements in the suburbs. The data of these successive periods paints a stark picture of the swelling-built area footprint that marked this era often at the expense of agricultural lands. and agricultural lands. From 1985 to 2003, the urban area almost doubled from 1359.58 hectares to 2654.26 hectares, a sharp increase of 1294.68 hectares of 9.88% of the total area, which equals an expansion rate of 71.88 hectares per year.

Two distinct phenomena underpinned this growth:

1. The continued expansion of the third ring of the city often by public participatory housing programs and Boulevards, with a pronounced pace towards the east than the west, owing principally to the green belt of Bousselam valley.
2. The proliferation of secondary often unplanned suburban neighborhoods along major transportation axis. Notably in Ain Trik where urbanization extended to Bouaoudja then Lahmalet before transcending administrative boundaries to Guedjel a neighboring municipality to the south.

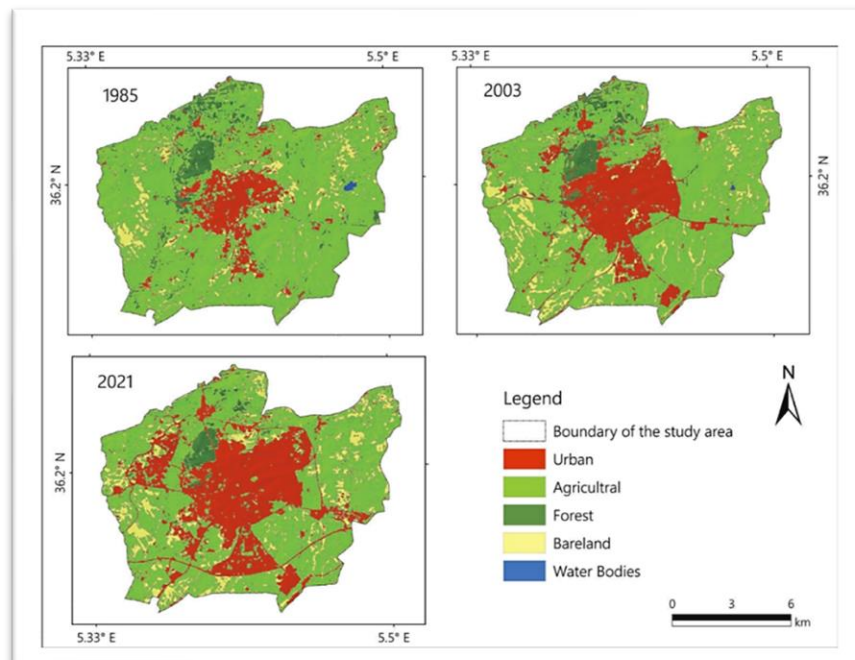


Figure 54: Changes in land cover in Sétif (1985-2021)

Source: (Slimani & Raham, 2023)

Additionally, there is an ongoing phenomenon of renewal of old fabric particularly with the increasing demolition construction phenomenon during the periods extending from 1985 to 2003 and from 2003 to 2021. Subsequently, the colonial urban fabric has undergone a continuous mutation, indicated by urban form alterations through maximum densification and intensification. This heterogenous, juxtaposed, and fragmented (re)development resulted in a mosaic-like morphology that reshaped the city's landscape.

The shift from master-plan urbanism to strategic project-based urbanism has left an indelible mark on the city's evolving physiognomy. This narrative is shared with major Algerian cities and not unique to the radial-concentric pattern of Sétif's urban development where the unfinished added to the incremental stages molded interventions on both existing and expanding, formal and informal frameworks, raising serious questions about the processes and impacts that have shaped the urban landscape over different periods.

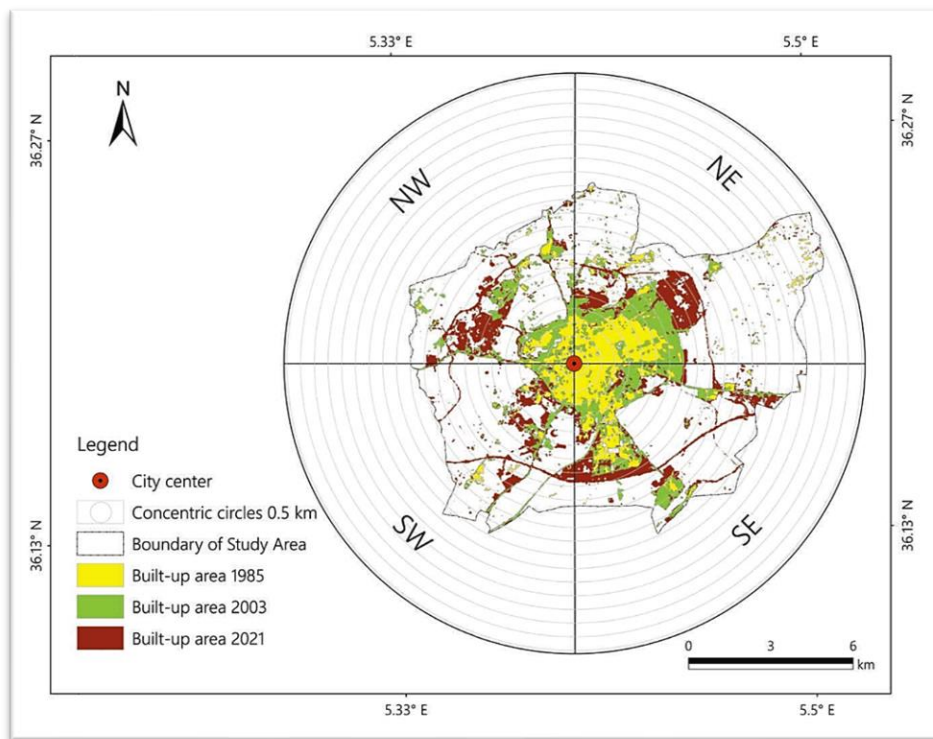


Figure 55: Directions of urban growth by Shannon entropy in Sétif

Source: (Slimani & Raham, 2023)

The northeastern edge of the city sprawled 250 hectares, testifying of the intricate relationship between urban management and the late comprehensive intermunicipal

master plan of 2012 and telling stories of adaptation and redirection, as 200-hectare planned project named the dove “La colombe” was reoriented towards alternative uses.

5.7 Multidirectional urbanization in the west, south, and southwest:

The urbanization process has unfolded in a multidirectional manner, each quadrant bearing its unique narrative (Slimani & Raham, 2023).

5.7.1 The western corridor:

Covering over 350 hectares, it encompasses Chouf Lekdad and El Bez Plateau, showing the intricate process of knitting together disparate urban patches into a cohesive whole through strategic land use. This area’s transformation from a hub of illegal construction and social unrest to a planned urban landscape featuring educational and health hubs like the university and two key projects, the geriatrics and anti-cancer centers, which later expanded to include private clinics through the CALPI procedure, highlights the city's commitment to eradicating precarious insecure housing and fostering urban unity.

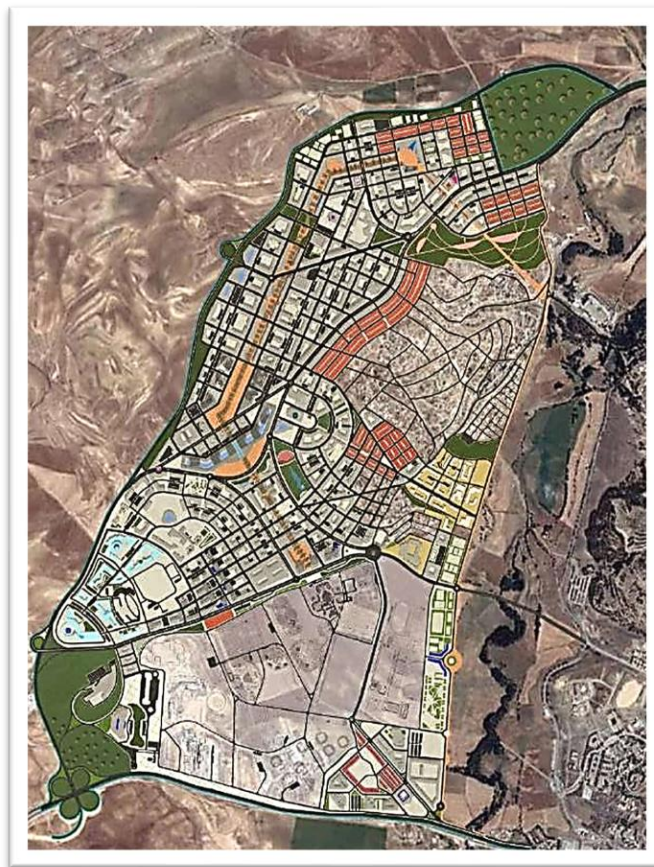


Figure 56 Chouf lekdad POS
Source : working group, 2008-2010

While the new university campus was undeniably a milestone, catalyzing further development initiatives including a CNEP/Immo program with 2,000 promotional housing units, other projects like the ophthalmology hospital with four (4) hectares allocated, developed in cooperation with Cuba, faced indefinite suspension, to be converted into a sports hub, featuring an Olympic swimming pool and educational facilities. This highlights the challenges and unpredictability of urban development projects. Such infrastructure improvements were crucial in this rural-urban incorporation and city's broader transformation. A transition triggered by the implementation of a university hub program, that acted as a catalyst for the urbanization process.

5.7.2 The southwestern corridor:

The launch of 7,000 units of social and promotional housing program amidst land scarcity reflects the first five-year plan urgent need for urban expansion. Urbanization towards Abid Ali was a result of a precipitation lacking prior urban planning without preparatory urban analysis and infrastructure development or any urban anchor (see the university hub in Chouf Lekdad- El Bez Plateau), resulted in accessibility and infrastructure challenges.

5.7.3 The southeastern corridor

The city of Sétif has witnessed a private developers' urban development in the southeastern slope. Historically its private land status lacking land register resulted in a conurbation with the village Ain Sfiha, marked by undivided ownership and heavy litigation among heirs, promoting spontaneous evolution.

The significance of the land registry as a fundamental tool for land control, urban management, and economic and social development cannot be overstated. With the recent land registry coverage of the Ain Sfiha-Abid Ali area, a slope spanning approximately 300 hectares (26.7+138+194) has been integrated into the perimeter of the intermunicipal Master Plan as an urbanization sector.

This slope is divided into two distinct parts:

- **The first part**

Location: Stretching from the RN 28 to the West, the industrial zone to the East, the RN 5 detour to the North, and the highway limits to the South.

Area: 293 hectares

Existing land uses: includes an artisanal area, CISs implemented habitat, a family needs cooperative, an important weekly automobile market, and a 26.7-hectare ZAC with 22 lots implemented in 2010.

Studies: A private engineering firm conducted (PAN 17 and PAN 18) as landowners rejected a state engineering firm, to maximize the occupation stakes:

- **PAN 17:** covers 138 hectares with 4,070 collective housing units, 1,991 individual subdivisions lots, and various local facilities.
- **PAN 18** covers 155 hectares with 8,503 collective housing units, 1,820 lots individual subdivisions, and various local facilities, including 11 hectares occupied by the wastewater treatment plant (WWTP) and pumping stations.

2. The second part

Location: From the RN 28 behind Ain Sfiha village to the East, the Abid Ali POS limit to the West, the brick factory behind the police school to the North, and the highway limit to the South.

Area: 194 hectares

Subdivision permits: Five subdivision permits issued by the municipality without an overall planning scheme or POS.

Program: The PAN for this part is divided into four sectors and includes 9,619 collective housing units, 2,006 individual subdivisions totaling lots, and various local facilities.

Challenges: The negotiation and design approach for the POS has been disorganized, with the engineering firm working without a purchase order and landowners capitalizing on their land to the maximum, opposing the projection of equipment leading to illicit transaction under administrative pressure.

5.7.4 Southern urbanization:

The East-West highway cleared a land corridor between Ouled Saber and EL Eulma to host a mega industrial zone as well as micro industrial areas in Guedjel commune. The extension of the industrial zone by 138 hectares came in response to industrial land tension illustrates strategic economic planning.



Figure 57 Extension of industrial zone
Source: Google earth 2024 edited by the author.

In addition to accommodating new investments, this move also played a crucial role in the city's economic diversification and employment generation, marking a successful integration of urban and economic development objectives.

5.8 Urban Hubs and PRHP Program

A significant PRHP (public rental housing program) for the city of Sétif adopting the concept of "urban hubs," urged by the Ministry of Housing, Urban Planning, and the City (MHU). The AADL (Agence Nationale de l'Amélioration et du Développement du Logement) housing formula was adopted nationwide, with the aim of coping with the pressure of the sociopolitical turmoil called Arab Spring. Despite the unfavorable opinions regarding the southeastern sites proposed for extensions of Sétif city, the subsequent implementation adopted a scattered and segregated satellite urbanization approach (Chorfi, 2019). Land plots selection necessitated reassessment and recalibration to address the concerns raised by the Interministerial Commission (CIM) for more incorporation of the new housing stock in the city.

- **Bir ennesa Hub:** The first urban hub was located in the commune of Bir N'sa, Sétif, on a 36-hectare site, with a 3,000-unit AADL public rental housing program implemented (PRHP).



Figure 58 Bir Ennesa Urban Hub AADL

Source : <https://www.facebook.com/photo/?fbid=1266578896886151&set=pcb.1266579326886108>

- **Tinner Township Hub:** The second urban hub was located near the township of Tinner on the land of the Ouled Saber commune, spanning 193 hectares, with an 11,000-unit AADL public rental housing program implemented.



Figure 59 Tinner "Urban Hub" AADL

Source: <https://www.youtube.com/watch?v=BlxOvRz790> Primary Road Infrastructure: Mastering Urban Development

The effective urban development of Sétif relies on the strategic development of road infrastructure, including inter-district and intra-urban networks with primary and secondary roads. Since 70's ZHUN, unclear boundaries of responsibilities between stakeholders often delayed urban development. However, between 2005 and 2010, substantial progress was made in primary road infrastructure, crucial for the city's expansion and integration. The approach was conveyed by infrastructure thinking, developing primary boulevards is a tradition in the city of Sétif, learning from this past the initiatives undertaken during the 1980s.

With the emergency housing program SNTR, and land covetousness in the heights of the Pine City (la pinède) compromising the completion of the second beltway, the new urbanization followed planning opportunity for boulevards, expanding the city outward as stipulated in TESCO study.

The major undertakings in the process of urbanization included:

1. **Northern bypass expressway:** A 15-kilometer road connecting the eastern and western edges of the city, bringing together its spatial extensions. Despite challenging topography prioritized a ground-level road over an urban boulevard.
2. **The bridging expressway:** 3-kilometer expressway on the Gasria side, spanning the Bouselam valley to connect with the bypass, linking the Chouf Lekdad plateau to the city, enabling the tramway to access the university, medical district and the 2000 Housing Complex.
3. **The interconnection logic (of the TESCO study):** Numerous urban boulevards with commercial ground floors for the new northern and north-eastern urbanization. ensuring mixed-use, public realm and a rapid transition and synergy between old and new elements.

During 2005-2010, the public works sector undertook 11 kilometers of urban boulevards, driving new urbanization while connecting districts. According to Chorfi (2019), these developments confirmed by the PUD (Plan d'Urbanisme Directeur) following the logic of structuring urban boulevards including:

- **Boulevard No. 3** second section (2.3 km) integrated with the tramway route and incorporating the Boulevard No. 2 extension.

- **Boulevard No. 2** extension (2 km) an extension of Entrepreneurs' Boulevard up to the University Hidhab gateway, constituting an urban expansion penetration.
- **Boulevard No. 1** extension (2.6 km) structuring existing fabric and opening up new areas for urbanization.
- **Hidhab East boulevards:** Two boulevards structuring the 83-hectare site (1.5 km each), one serving as a vertical spine and the other delimiting the site and running alongside the university hub, connected to other major boulevards.
- **East-West boulevard** (1.5 km) starting from the Ain Mousse junction towards the Northern bypass.



Figure 60 Aerial view of the Northeastern corridor
 Source: <https://www.hotelscombined.fr/Place/Setif.htm>

While the prevailing urban plan did not provide for these urban extensions, the spatial extension was carried out on an ad hoc basis without an overarching urban plan, leading to a lack of an overall development plan defining the achieved road network. However, the urban governance leading the project ensured that boulevard infrastructure was built in parallel with the site's urbanization, facilitating the location of developers and enabling buildings to blend with the newly constructed boulevards, even on uneven terrain.

6. Urban Regeneration: A Multifaceted Approach in Sétif, Algeria

Urban regeneration, a term referring to the process of reclaiming or revitalizing urban areas that have experienced decline, disinvestment, or abandonment (Amado et al., 2016), has been a pivotal aspect of urban development strategies in Sétif, Algeria. This complex approach entails several measures toward a turnaround of negative development logics and a creation of positive change within the city's social fabrics. Sétif's processes of post-colonial "reconquest" initiatives have assumed various forms – from speculative large-scale developments to small-scale incremental additions, informal practices, unlocking of contested and abused rundown sites, and administrative complexes and scattered allocations.

6.1 Redevelopment of Large-Scale Projects

One of the most revealing forms of Sétif's urban reconquest is the renovation of the former "Andréolli" area actual Omar Deggou. This complex and massively ramshackle community that began in the colonial era and currently has more than 650 households in permanent structures has finally been cleared following the three-decades long process of three revision and redevelopment studies.

However, the public authorities' decision of site clearance and building from scratch came no earlier than 2001, resulting in residents' relocation to the city's northeastern peripheries. Although this operation was made with haste and under pressure, overlooking sociological considerations and consequences of displacement and relocation, it demonstrated that large-scale demolition initiatives can be undertaken when there is a strong political will and appropriate decision-making mechanisms in place. After a decade, the cleared site was reassigned for real estate development by OPGI, with some facilities built, such as a craft center, courthouse, and public garden, while the interstitial land remained unoccupied.

Another large-scale redevelopment project involved the demolition of the "Diar Nekhla" housing complex, an inherited colonial rehousing scheme of 203 collective housing units in 4-storey apartment buildings. Despite the lack of formal studies, technical or administrative documents, or legal frameworks governing the operation, the entire neighborhood was demolished following a minor balcony deterioration incident.

This unconventional approach raises questions about the legal and planning frameworks that can permit such substantial operations without comprehensive impact assessments

or consideration of the consequences for the occupants, who were homeowners and landowners of the liberated plots. Despite proposals of a high school, health center, and a multi-storied car park, by local administration seeking to recycle, the land the de facto planning imposed a mosque on the site that remained unachieved, with empty pockets waiting projects.

6.2 Incremental Interventions and Centrality Restoration

In parallel with the large-scale redevelopment projects, Sétif has witnessed a gradual process of urban reconquest around the former walled city, confirming the incremental restoration of centrality within the old city center. During the 2005-2010 period, several interventions were undertaken to enhance the urban image and reinforce the central district's prominence.

These interventions included the construction of a new provincial council building across from the Governor's office on a site declared unsuccessful during the 1992 auction. However, the architectural quality and investment impact did not match the land value and strategic location. Additionally, the relocation of the El Hidhab radio headquarters from Ain T'binet to the city center across from the CNEP Bank headquarters, and the unlocking of the El Ali project, which became Parc Mall after a property transaction between CNEP Bank and a private investor, contributed to the urban reconquest dynamic. The Parc Mall project, initially intended for high-rise housing, was converted into a multi-purpose top-tier service facility with tremendous impact (Chorfi, 2019; Haouche, 2023).



Figure 61: View on Park Mall from the lake side in the amusement park

Source: <https://four-points-by-sheraton-setif.albooked.com/#lq=7824784&slide=1124414730>

On the Western fringe, a large courthouse is constructed on the former open-air theater site, which had long been embroiled in encroachments and informal settlements. After several failed attempts, the plot was finally renovated as an undeveloped parcel of land, with public interest superseding the precarious tenure of encroaching occupants.

Other minimalist scenarios aimed at enhancing the urban image of the old city included renovating the headquarters of the Province and sub-prefecture, along with decentralized administrations, involving private local architecture agencies and companies to rehabilitate the Kirouani high school and Giroud castle. In parallel, based on site selections, two luxury hotels were built on Mouhafada square across from the cultural center by a private investor through an international hotel chain, contributing to the urban reconquest dynamic of the district. The implementation of the tramway line also bolstered the incremental process through restructuring and urban improvement along its trajectory.

6.3 Administrative Complex Development and Scattered Allocations:

The former land reserves near Bouaroua neighborhood "Dallas", enclosed by the Professional Training Institute (IFP), turning his back to the Road 1st November, behind a high and opaque wall, such a barrier in urban landscape, severely limiting accessibility to the area. The expected demolition of this fence, enabled the connection of this district to the city along the main road. (Rahmani Kelkoul, 2023)

After a negotiation-compensation process was engaged with SONATRACH¹⁴, legal owner of this empty pocket, the administrative departments were set up under the 2005-2009 five-year plan, based on available land opportunities and in a climate of urgency. Although the administrative complex at Ain Tebinet was a notable initiative gathering administrative facilities, it lacks not only mixed use, synergy, and cohesion but a holistic vision as an urban entity. To address the resulting disorder and juxtaposition of public facilities, a commission was tasked with tallying the current state, densifying the site, demarcating lots for the land registry "cadastre", and providing the necessary road and utility infrastructure.

In parallel with the concentration of headquarters at the Ain T'binet site, the site selection commission also allocated land for various administrative headquarters in a scattered approach based on available land opportunities. For instance, the provincial treasury

¹⁴ Sonatrach is the national state-owned oil company of Algeria. Founded in 1963

headquarters and a regional land registry “cadastre” department were built in a residential neighborhood, at the heart of the garden suburb, taking advantage of sparse building density and residual spaces along the 20 August 1954 boulevard, posing accessibility issues due to parking needs, traffic congestion, and inadequate road width in an already dense neighborhood.

6.4 Pursuit of Brownfield and High-Value Potential Sites

During this period, Sétif saw significant developments on previously contested brownfield sites that had been dormant. For instance, a 3.6-hectare plot in Ain T'binet, on the city's eastern, reserved for private development since the 1980's, was cleared for use.

Due to land scarcity, this site was densely developed into a real estate project with extreme density, achieving over 500 housing units per hectare. Similarly, land originally allocated for hotel development at the memorial site was repurposed for housing, necessitating amendments to the POS (Plan d'Occupation des Sols).

Further developments included the Agricultural Cooperative project in Ain Chougua which progressed with building permits issued post-infrastructure completion, along the southern main arteries, mirroring the situation at the eastern entrance where private promotional housing projects where private developers prioritized maximizing profit in packed housing complexes along the tramway near Ain tbinet, creating unprecedented density on the same 1st November road of the previously cited administrative complex.

In addition to these planned public and private actions, Sétif experienced an influx of informal urban development due to real estate speculation. This included renovating old buildings, converting downtown residential properties to commercial spaces, and gentrifying neighborhoods near the city center, thus attracting investors eager to capitalize on property income and speculation opportunities. Consequently, the downtown landscape transformed, with new hotels, mall, and office spaces replacing older urban blocks, further supported by a social housing program that facilitated rebuilding dilapidated building and spurred speculative private ownership renewals to neighborhood scale.

Despite the urban planning vision outlined in the POS for the downtown area and despite the population's wishes and local authorities' unofficial stances on preserving the old built fabric, the renovation process remains largely unregulated and unrestrained, profoundly impacting the city's urban landscape.

Phase	Description	Key Developments
2005-2009	Initial development of administrative complex in Ain T'binet	Development without comprehensive urban plan
2005-2010	Expansion and consolidation of the old city center	New provincial council building, relocation of El Hidhab radio, Parc Mall, new courthouse
2010-2015	Diversification of development sites	Provincial treasury, regional cadastre department
Ongoing	Revitalization of brownfield sites	High-density housing in Ain T'binet, conversion of hotel allocations, Agricultural Cooperative project
Ongoing	Urban renewal driven by real estate speculation	Renovation of buildings, gentrification, emergence of new urban spaces

Table 5: Key developments (2005-present)

Source: Author, 2023

6.5 Catalyzing Urban development with Structuring Projects:

Remarkable urban transformation and extensive spatial expansion in all directions marking the city of Sétif over the past decades, mirrors the recovery of welfare state, paying debts and accumulating a monetary reserve. Subsequently, a series of structuring projects were notable catalyzers of the considerable growth peaking between 2005 and 2010. These projects have not only spurred urbanization but have also enhanced infrastructure, services and urban landscape, in addition to a pivotal role in job creation, helping to alleviate unemployment. Consequently, Sétif has been able to restore its dynamism, maximize its potential, boost its economic viability, and reinforce its regional leadership over a catchment area exceeding five million inhabitants and becoming a focal point for investors.

Main structuring projects cited by Chorfi (2019), are summarized in the following table:

Project	Description
Wholesale Market	The wholesale market, now located 2 km South of the city, occupies 30 hectares equipped with modern facilities and all necessary amenities. It comprises 22 units and handles 500,000 tons of goods annually.
Water Transfers	This project was launched to not only provide drinking water but also irrigate a 36,000-hectare area South of the city.
East-West Highway	The highway has enhanced the proximity between the two metro areas and has had enormous impacts and stakes. It encouraged greater ambitions around structuring projects.
Tramway	This new public transit mode has allowed for improved services after the crisis period. Its completion connected the two ends of the city. However, its layout has been a point of contention, being far from densely populated ZHUN areas, and having increased prices of proximity locations.
ParkMall	This was transformed from El Ali into a quality service project, reversing the downturn of the old city center to regain its former centrality. It attracts between 25,000 to 30,000 daily visitors.
Two University Campuses (Sétif 1 El Bez and Sétif 2 El Hidhab)	Both campuses have a capacity of 60,000 students and 20,000 beds, including affiliated facilities.
El Bez Sports Complex	This sports complex is nationally renowned and replicated, clustering sports facilities on a natural site beyond Bousselam valley facing the new El Bez university campus.
El Bez Health Complex	Currently a geriatrics facility turned mother-child clinic and cancer center. The initial plan was for a 30-hectare multidisciplinary medical and scientific city.
Industrial Zone Extension	The extension was an emergency alternative to house serious investor interest in Sétif, given the scarcity of industrial land. It observed clear employment generation, densification, and extensions.
Business Parks around Sétif	Momentum was regained for business parks through various micro-zones across most provinces. These parks were theoretically generating over 12,000 jobs.

Project	Description
New Sétif Sports and Recreation Complex	The main facility being the new city stadium and sports/leisure equipment. Infrastructure works launched before the crisis are now slowly progressing.
Mega Industrial Zone (Ouled Saber Industrial Park)	Located on 700 hectares, this is part of the national CALPIREF 12,000 hectares. Despite administrative constraints, investors are already producing.
Major Stadium	Promised and expected by local football team, ES Sétif fans and inhabitants. It sounds like the project frozen for a long time due to economic crisis, will be finally launched (Declaration of sports minister Hammad Abderrahmane, in March 2024)
Intermodal Station	An ambitious project finalized with studies approved in 2008. However, due to mismanagement, the project was stalled and is currently cancelled.

Table 6: Structuring projects in Sétif
Source: Author, 2023

6.6 Evolution of the Land Use:

- From 1988-1998:** The rapid and substantial expansion stands out, witnessing a growth rate of 2.31% and an average annual increase of 95 hectares. This resulted in the consumption of 950 hectares over the course of a decade, leading to a transition in land consumption from 1335.1 ha to 2285 ha. Such surge can be attributed to the market-driven attempts such as subdivision and real estate promotions, industrial initiatives. Furthermore, security concerns and the lack of necessary development projects to sustain populations neighboring municipalities prompted the northward rural exodus that exacerbated the growing demand for housing and employment.
- From 1998-2008:** The city went through another wave of land consumption, at a growth rate of 1.86 % and an average annual increase of 109.2 ha. The transition in land consumption from 2285 ha to 3377ha corresponds to a total consumption of 1092 hectares in a decade. A multifaceted expansion explained by a city adapting to changing circumstances and improving security situation, investing in major structural projects such as the two new university hubs, the sports hub, and the medical hub in the city of Sétif.

We also highlight the role of economic investment, services, housing, and infrastructure programs in the stabilization of rural populations and the emergence of secondary centers from rural areas exceeding a population threshold of 10,000 inhabitants.

Period	Initial Land Cover (ha)	Final Land Cover (ha)	Change in Land Cover (ha)	Average Annual Increase (ha)	Growth Rate (%)	Key Factors
1966-1977	314	839.8	525.8	47.8	167.5	Spatial extension
1977-1979	839.8	1500	660.2	330.1	78.6	Continuation of housing programs, municipal subdivisions, and the ZHUN program
1985-1998	1500	2285	785	60.4	52.3	Market-driven attempts such as subdivision and real estate promotions, industrial initiatives, northward rural exodus
1998-2003	2285	2664.26	379.26	75.85	16.6	Improving security situation New presidential program with major PRHP housing program with accompanying structural projects. Two new university hubs, the sports hub,
2003-2008	2664.26	3377	712.74	142.55	26.8	Continuation of major PRHP housing program with late accompanying structural projects, such as the CAC medical hub, economic investment, services, and infrastructure programs
2008-2021	3377	3890.73	513.73	39.51	15.2	The emergence of secondary centers hosting major PRHP housing programs, lacking structural projects, economic

Period	Initial Land Cover (ha)	Final Land Cover (ha)	Change in Land Cover (ha)	Average Annual Increase (ha)	Growth Rate (%)	Key Factors
						investment, services, and infrastructure programs

Table 7: Key factors of growth over periods
Source: Author, 2023

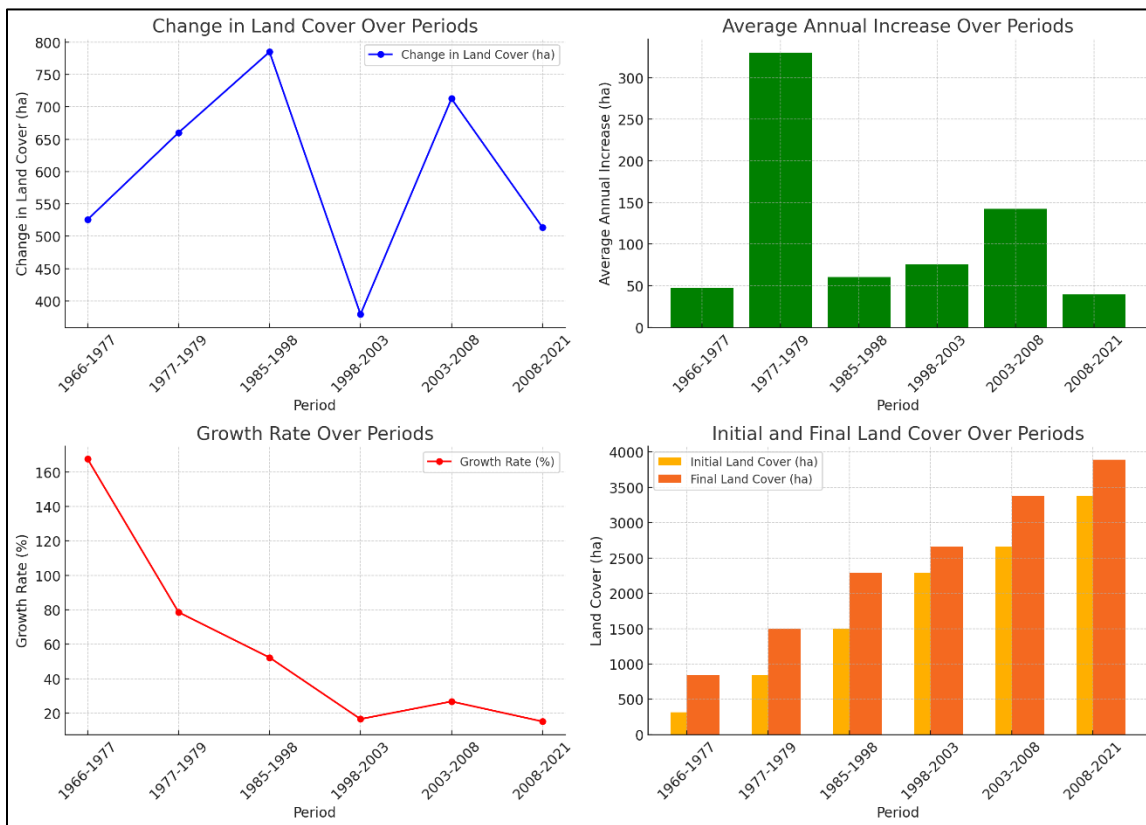


Figure 62: Graphs of changes in the table 5
Source: Author, 2023

6.7 Evolution of the housing stock

During the period (1994-2008), the housing stock increased from 32,087 units to 43,402 units. The occupancy rate (T.O.L.) remained higher than the nationally recommended rate, which is attributed to a significant influx of population, especially in the 1990s, seeking security and improved living conditions. While the housing stock is diverse, it is still insufficient. This qualitative diversity (real estate promotion, housing cooperatives, etc.) was accompanied by a significant increase in the number of housing units, predominantly

individual dwellings. As for the social rental housing stock, it is mainly composed of collective dwellings.

The housing stock in Sétif is relatively recent overall (Table 6). Housing has experienced a clear improvement in its living conditions, including size, interior amenities, construction materials, and the overall living environment. There has been a noticeable increase in the construction of new social rental housing and L.S.P (Low-Cost Promotion) in recent years.

Between 1998 and 2005, the construction of social housing experienced a significant increase, and a certain recovery seems to be underway.

Property Category	Residential Area Min	Residential Area Max	City Center Min	City Center Max	Suburban Area Min	Suburban Area Max	Remote Area Min	Remote Area Max
Individuals								
High-end	121,739	140,000	97,391	112,000	77,913	89,600	46,748	53,760
Improved	94,348	108,500	75,478	86,800	60,383	69,440	36,230	41,664
Economic	82,609	95,000	66,087	76,000	52,870	60,800	31,722	36,480
Precarious	78,261	90,000	62,609	72,000	50,087	57,600	30,052	34,560
Collectives								
High-end	100,000	115,000	80,000	92,000	64,000	73,600	38,400	44,160
Improved	90,000	103,500	72,000	82,800	57,600	66,240	34,560	39,744
Economic	81,000	93,150	64,800	74,520	51,840	59,616	31,104	35,770
Precarious	78,261	90,000	62,609	72,000	50,087	57,600	30,052	34,560

Table 8 Reference of Individual, Semi-Collective, and Collective Buildings and Land Terms Transactions (2023 – 2024).

Source: General Directorate of Taxes <https://www.mfdgi.gov.dz/fr/services-num/autres-services-numeriques/referentiel-des-prix-de-limmobilier#221-235-prix-de-vente>

The properties are categorized as follows:

- Individuel (Individual)
- Collectif or Semi-Collectif (Collective or Semi-Collective)

Each of these categories is then subdivided by the type or quality of the property such as 'Standing' (Premium), (Improved), (Economic), and (Precarious).

Looking specifically at the (City Center) and (Peripheral Zone), we can see that there is a clear gradient of property values, with the city center typically having higher values than the peripheral zones. For example:

- A premium individual property in the city center has a valuation range of 97,391 to 112,000, while in the peripheral zone it ranges from 77,913 to 89,600.
- A precarious collective property in the city center has a valuation range of 62,609 to 72,000, whereas in the peripheral zone it ranges from 50,087 to 57,600.

6.8 Conclusion

In examining the urban transformation of Sétif, the chapter reveals a city grappling with significant urbanization, transformative structural projects, and sprawling growth. Urban reconquest efforts have encompassed a diverse range of approaches, the city has demonstrated progress in eradicating precarious housing and enhancing public infrastructure, including large-scale redevelopment projects in Omar Deggou District, a precarious informal settlement, as an initiative that clearly demonstrated the possibility to eradicate unsanitary housing and undertake large-scale demolition initiatives when a strong political will and appropriate decision-making mechanisms are combined, supported by governance strategies that include reclaiming agricultural land to facilitate construction without constraints.

To streamline land availability, key for expanding, the Master Plan for Urban Development (PDAU) was subject to revision. Nevertheless, inconsistencies persist in Sétif's approach to urban development, particularly when it comes limited technical services of different municipalities equally treating programs in a standardized way in the name of territorial equity. Meanwhile, to specifically address local needs, the proactive and participatory strategy to effectively lead planning initiatives proves to be increasingly indispensable. The state reacted immediately to Arab spring events by declaring public housing as a utility, engaging land expropriation, to restrain social pressures. A conjunctural land governance move that will raise apprehensions if ever conducted or adopted as an urban approach on the long-term.

Urban reconquest in Sétif's far surpassed simply eradicating unsanitary housing conditions, aiming at restoring centrality and enhancing the urban infrastructure and landscape with incremental efforts, relocating facilities, and unlocking the long-stalling project in a strategic location "El Ali" converted through a public-private partnership between CNEP and a private investor to a city landmark and vibrant complex named "Park Mall". The pursuit of brownfields often at the expense of public places and urban voids turned into persecution through formal or informal processes either driven by public or private well-organized real estate developers, such as the scattered allocations around Ain Tbinet administrative complex. Speculation strikes again, as private sector was purchasing dilapidated and contentious properties with high value potential sites in pericentral neighborhoods. While sometimes controversial, presents the city's ongoing struggle with land scarcity, legal frameworks inconsistencies, and the balancing act between modern development demands and preserving the urban heritage.

Crucially, the chapter suggests that effective urban reconquest in Sétif requires a holistic approach that not only addresses immediate developmental pressures but also considers long-term sustainability. This involves integrating non aedificandi belts to mitigate urban sprawl and fragmentation, preserving and protecting Bousselam Valley along with Zenadia forest as green belts, engaging both public and private sectors with diverse and sometimes opposing interests in cohesive urban planning, and ensuring that all initiatives, whether public or private, consider the sociological considerations, affordability, economic viability and environmental impacts on the city.

Government deferred urban extension through initiatives that generally focus on creating satellite urban centers resulting in phenomenon of conurbation while claiming to preserve agricultural land. On the other hand, the private sector, driven by limited land availability and the needs of wealthy individuals, participates in activities that result in urban fragmentation creating prestigious second residences in poor rural village exacerbating tensions with rural population. Transactions within undivided properties remain even after prohibition in 2003 of such transactions in agricultural zones. The well-intentioned rural housing program for isolated and disadvantaged communities triggered abuses in land reorganization and appropriation issues following mistargeted subsidies and tricky land appropriation under rural housing cover.

As Sétif continues to evolve, the challenge lies in implementing a comprehensive urban strategy that harmonizes new development with historical preservation, supports economic growth and fosters a socially inclusive urban environment. The continued refinement of urban policies, rigorous project management, and inclusive decision-making will be pivotal in guiding Sétif towards sustainable urban renewal, making it a model for addressing complex urban challenges in a dynamically changing environment.

Roberta Brandes Gratz:

"Urban regeneration is not about knocking everything down and starting again. It's about incremental change and working with what's already there. Like a quilt made from cherished scraps, each piece of the urban fabric has its own story, and together, they create a tapestry of history, culture, and community." – The Living City: How America's Cities Are Being Revitalized by Thinking Small in a Big Way

Chapter Eight (08)

**Urban dynamics in pericentral neighborhoods (Case studies)
(Real estate speculation, densification and apartmentilization)**

1. Introduction

Strategic planning and local urban management are particularly crucial in developing countries that are embracing profitability and liberalization (Benedjai & Bencherif, 2022). The National Report on Housing (National report, 2014) stated that urban areas were already crowded and that urbanization at an unprecedented rate had made the development of new suburban areas critical. Some intermediate interior cities in Algeria's fast-growing regions have doubled in size over the past 30 years (Diafat & Madani, 2016). In parallel, there are challenges with population distribution, land use, wealth, and growth of the local and national economies (Bounoua et al., 2023). This is addressed through urban consolidation and structuring public projects (Boudjabi et al., 2018) to boost housing capacity, urban attractiveness, and competitiveness. However, while undergoing restructuring, cities concurrently accumulate deficiencies and issues (Bibri et al., 2020). The primary focus on building the city over the city is the urban reorganization and reuse of the existing urban fabric, along with social redeployment to reduce social inequalities and curb urban sprawl and segregation (Armstrong et al., 2023; Neuman, 2005). The redefinition of the urban physical structure is crucial for sustainability and inclusion in redevelopment (Sharifi & Yamagata, 2014). Urban renewal continues to advocate for the enhancement of the physical environment to attract more investment opportunities, while neighborhood renewal aims to upgrade existing homes (Pinnegar et al., 2015). Various stakeholders with competing needs and interests attempt to redress housing stock quality and correct market obsolescence through redevelopment (Broeck et al., 2015). Indeed, valorization and prioritization enable various forms of urban densification and occupation (Giddings & Rogerson, 2021). The slow and steady adjustment and commodification have affected both the collective and individual types of inherited vacant housings stock. However, when adaptation is insufficient to meet changing socioeconomic conditions, family structures and needs, the transformation and replacement of the obsolete built form become inevitable (Amer et al., 2017; Mouaziz-Bouchentouf, 2022). Developers' speculative renewal is capital (re)investment that anticipates future demand taking into account laws of attraction and identifying the most appropriate locations for housing or mixed-use development, commodification of space, and displacement (Cavicchia, 2023; Lees, 2008). It can involve the conversion, transformation, or redevelopment of single-family housing in a sequence of institutive, repletive, climax, and recessive phases, measurable in terms of building coverage, followed by urban fallow (Conzen, 1960). By doing so, it increases housing prices and, consequently, encourages overbuilding in a

privately redeveloped neighborhood (Dessouky et al., 2023). This could be the first paper to examine pericentral neighborhood renewal, building from scratch, and the correlation between the housing market and social capital in Algeria. Furthermore, this study proposes two interrelated hypotheses. First, knockdown rebuild (KDR) can increase density and lead to real estate speculation. Second, speculative neighborhood renewal (SNR) may be the main reason for the shifts in demographics and typology. There is very little monitoring and evaluation at the neighborhood level to harness available resources, stimulate central areas, and overcome the loss of welfare. Therefore, this research supports the idea that adopting a densification toolkit, morphological regulation, and an approach involving residents and stakeholders in decision-making can help mitigate the negative effects of SNR on the urban landscape and housing affordability to meet the predetermined neighborhood renewal SDGs. Multifaceted mutations have resulted from rapid territorial and urban changes in the city of Sétif (Belmahdi & Djemili, 2022). The capital of the Algerian high lands now plays a more significant role in the national land development plan (SNAT 2030). We deliberately chose a former pericentral neighborhood in this mostly residential, intermediate, and monocentric city, which is experiencing visible symptoms of a brewing crisis due to the pressure of a speculative market with uncontrolled and uncoordinated redevelopment. Large-scale transformations and housing densification support our choice. While neighborhood renewal is questionable in terms of effectiveness, adequacy, and appropriateness, social capital is often overlooked.

2. Methods

This research relies primarily on a sociological survey methodology and map analysis to study the incremental growth and site structure of a case study community and to comprehend the development from housing estates to neighborhoods with changing character but lasting fame and attractiveness.

A survey was conducted over a three-month period with a randomized sample of 120 long-term neighborhood households, focusing on the KDR process, physical features, perceptions, and interactions, and an 86% response rate equivalent to 103 questionnaires was achieved. Semi-structured interviews were conducted with diverse stakeholders with different interests and priorities, including, but not limited to, developers, architects, scholars, and researchers, to understand the design of patterns, construction methods, redevelopment dynamics, drivers, and governance and to determine the extent to which redevelopment affects building and block land use, typology, morphological elements,

and social capital. Furthermore, we used general rules of urbanism, such as vis-à-vis, building coverage ratio (BCR), and Floor Area Ratio (FAR) to check the built character. This study aims to draw redevelopment priorities and capture local community perspectives. Qualitative sources, such as field observations and informal discussions, were used alongside quantitative data sources, most notably, survey questionnaires based on the components of urban environments, attractiveness, and a set of sustainability principles and indicators (Table 7).

We also explored alternatives for a more affordable and sustainable housing supply for existing communities facing gentrification and found that some regulations are recommended to harness the impact of densification and apartmentilization on social sustainability.

3. Questionnaire framework and targeted respondents

The design of the questionnaire in two languages, Arabic and French, aimed to reach the highest number of respondents. Afterwards, it was administered in two different formats: online (Google form), which was sent to a previously collected mailing list and social media. Printed (Distributed and Collected). The electronic form was more time-saving because the surveyor and respondent did not require a second contact. However, both methods have been used to guarantee a wide-ranging response by case study residents, scholars, and researchers. We targeted the owners and developers of the peri-central (Cheminots) neighborhood of Sétif as the parent population of our study, as they are the most relevant individuals to address our issue of residential densification in this study area. As actors directly involved in the renewal process, they have active knowledge and concrete experience of the studied phenomenon. Their perspective and information are therefore essential for a deeper understanding of the situation.

The objective of sampling is to be able to generalize the conclusions of the study to a larger population (external validity). For this, it is crucial that the sample is representative of the characteristics of the parent population. By obtaining a representative sample, the statistical analyses carried out will have greater value, as the results can be generalized to the entire population. This allows for more reliable and meaningful conclusions.

To avoid selection biases and ensure the representativeness of the sample and its generalization to the larger population, we used the most recommended probabilistic sampling methods. These methods consist of giving each unit of the parent population an equal chance of being selected in the sample.

Our survey was conducted during the month of January 2023, specifically targeting residents in the Railway Workers Neighborhood coffees, at the primary school entrance and in the garden-playground. We used a combination of semi-structured interviews and questionnaires to collect data. In total, we interviewed 103 out of 348 lots in the area. The number of questionnaires was stopped when the responses collected seemed redundant and a degree of "saturation" was reached.

The questionnaire was divided into eight sections: The first section, based on the filter questions, aimed to provide basic information about the respondents. Definitions of the criteria were attached to the questionnaire for guidance and clarification whenever needed by the respondent. Dichotomic (closed) questions to develop the discussion are generally followed by conditional questions. MCQ (multiple-choice question) for further details. Likert scale (evaluation grid) for experience-based aspects and open-ended response questions for explanations of pros and cons. These questions allowed participants to share their opinions while allowing us to obtain precise and relevant data for our study with a more complete and nuanced view on housing densification and apartmentilization issue in the peri-central neighborhoods of the city of Sétif.

4. Cheminots Neighborhood (Railway Workers District)

According to Prenant, Sétif witnessed two main waves of real estate speculation. The first one was inaugurated in 1887 by the conversion of agricultural areas into housing estates, beyond the military servitude zone (Cite Levy actual Bon marche) between the Negro village and the Arab market beyond the southern city gate "Bab Biskra." After 1914 "WW1" came the "budget" housing estate fever to relocate and reconcile, so the upper and middle-class established around main retail avenues and thoroughfares, thus, the upper and lower train station suburbs were affected by a sudden added value (Figure 30).

The 13th of July 1928, with Loucheur's law (French Labor Minister), public authorities were involved in the management of the housing crisis: housing supply, slum clearance, and renovation of substandard housing. Land prices rose sharply after the HLM and HBM housing programs and real estate development between the Constantine and Sillegue road.

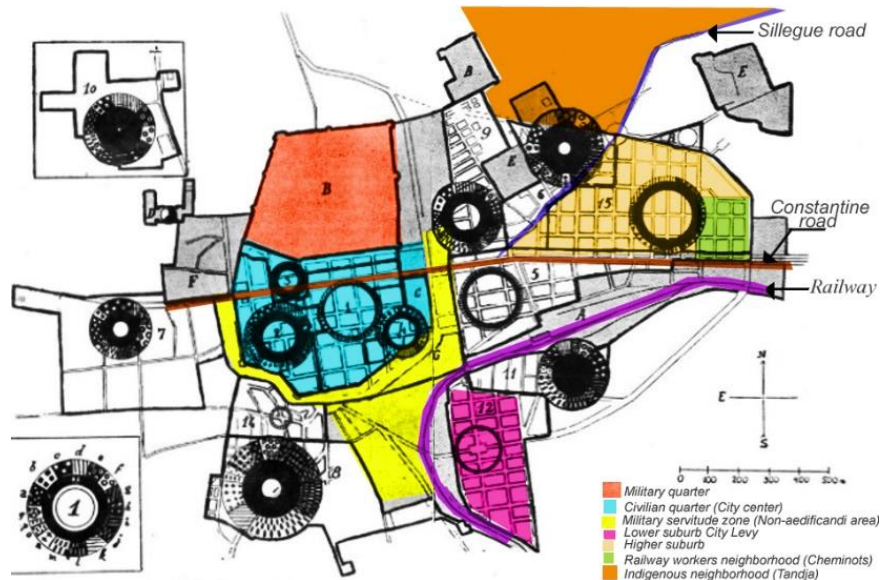


Figure 63: Density and housing estate fever after railway

Source: Prenant, A (1953). Adapted by the author.

The second "higher" suburb of the train station, established in 1930, was a garden city-style housing neighborhood designed by architect Berrardi. The district aimed to connect the planned lower suburb with the large spontaneous autochthon's "Indigenous" settlement called (Tandja) in the north (Figure 1). The study area is in the eastern first crown suburb on a flat site in the pericentral part of Sétif, with a regular urban fabric of almost a century of urban history. The decamanus, tramway, and railway in the south, the double track in the east, and the former city center in the west are its boundaries.

While indigenous vernacular multifamily rental houses were introverted and organized around a patio (Hara), the veranda houses surrounding the RWN were conceived as extraverted single-family houses with front gardens and low fences open to public spaces for ostentatious and supremacy reasons (Lacheheb, 2017).

A 24000 m² area, consisting of eight former regular blocks and 300m² rectangular plots stretched along the frontage along the ways. For assertion and domination, one of the blocks 40m x 60m was initially set up as a square, garden, and playground, now serving as an open space for social network empowerment. Four semi-blocks were placed to the north before extension (Figure 31). The neighborhood extends to 1st of November Avenue and Boulevard Port Said (Figure 32), as the former city center expands and reorganizes functional spaces. The case study is an integral part of this expansion. Called both "Bled" meaning city center in the popular language, and "Cheminots" literally meaning railway workers' neighborhood. RWN stands for railway workers' neighborhood for the rest of the paper.

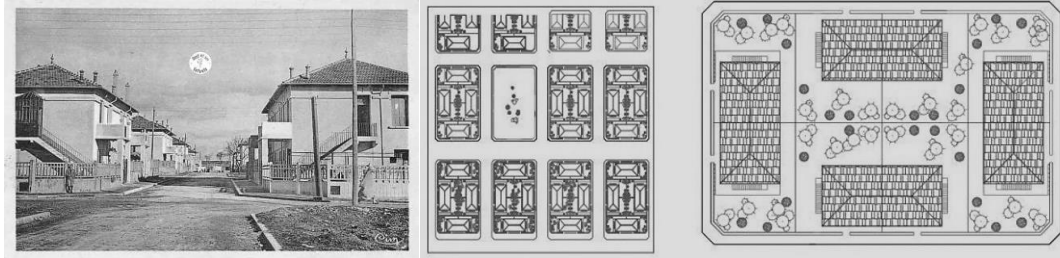


Figure 64: Semidetached houses with side gardens of RWN around 1931

Source: Archive, Adapted by the author.

From the French occupation to post-independence, cultural and ideological changes in the case study have been resisted, but the transition from a socialist to a liberal economy has led to undesirable phenomena affecting spatial justice and social structure balance, and has so far affected central and pericentral neighborhoods. Their strategic location near the city center, with 10 minutes walkable radius (Figure 32) with multiple exits, health centers, medical care, markets, shopping centers, public transport, green open spaces, playgrounds, kindergartens, primary schools, and mosques, make this self-sufficient neighborhood attractive.



Figure 65: Location, facilities, and walking radius

Source: Google Earth 2023, adapted by the author.

5. Data collection and analysis

Our data collection was conducted through a comprehensive approach that integrated in situ observations and a concise framework that encompasses attributes specifically related to the research concepts, dimensions, and criteria listed in the previous literature review. The information was then augmented by spatial analysis and the administration of a structured questionnaire.

First, sociodemographic data concerning RWN users were collected to determine whether the neighborhood fostered diversity or homogeneity. Excel was used to evaluate the survey findings and generate data as percentages.

Table 9: Households profile

Users' characteristics and categorizations			
		(N=103)	(%)
<u>Gender</u>	Female	12	11.65
	Male	91	88.34
<u>Age</u>	10-15	01	0.97
	15-20	03	2.91
	20-30	26	25.24
	30-50	69	66.99
	+50	04	3.88
<u>Number of years lived in the neighborhood. (Oldness)</u>	0-5	24	23.30
	5-10	23	22.33
	10-15	17	16.50
	15-30	25	24.27
	+30	11	10.67
<u>Previous housing (reference)</u>	Apartment	64	62.13
	Villa	36	34.95
<u>Commuting distance</u>	Close	71	68.93
	Distant	26	25.24
<u>Means of transport</u>	Walk	45	43.68
	Car ownership	19	18.44
	Public transport	33	32.03
<u>Academic level</u>	Uneducated	10	9.70
	Primary	24	23.30
	Secondary	31	30.09
	University	32	31.06
<u>Income</u> * Minimum income = 20000 DA/month (1DA=0.0073USD)	Low	26	25.24
	Moderate	39	37.86
	High	32	31.06
<u>Employment status</u>	Student	22	21.35
	(self)Employed	31	30.09
	Unemployed	27	26.21
	Retired	17	16.50

Housing characteristics, transformation clusters, and drivers were analyzed to examine possible causal connections.

Table 10 Housing characteristics

<i>Housing' characteristics and categorizations of transformation</i>			
<u>Housing characteristics</u>	Preserved	50	48.54
	Refurbished	24	23.30
	Built from scratch	29	28.15
<u>Type</u>	Single family house SFH*	26	25.24
	Multi-family house MFH*	18	17.47
	Apartment building AB*	32	31.06
<u>Use</u>	Residential	83	80.58
	Mixed use	16	15.53
	Non-residential	01	0.97
<u>Transformation driver(s)</u>	Surface	16	15.53
	Functional	14	13.59
	Reconstruction	14	13.59
	Income generation	04	3.88
		44	42.71
	Embellishment		

Second, the evaluation criteria were delineated as follows:

- a/ Users' interaction with physical environment features and mechanisms
- b/ Comfort level and quality of public facilities
- c/ Aesthetic and landscape perceptions based on attractiveness and physical maintenance.
- d/Users' interactions with each other to assess sociability, vibrancy, and the public realm.

The components of the rebuilt urban environment after alterations and renewal in the neighborhood were also checked through attractiveness indicators related to physical features, social practices, and perceptions (table 9). The "effective" and "not effective" qualifiers evaluate the usability, practicality, and durability of urban environmental components and layouts. They indicate whether the built environment meets resident expectations, with "effective" indicating positive evaluation and "not effective" indicating negative evaluation (Guedoudj et al., 2020), The number of responses is next to the qualifier,

e.g. (94) from the total questionnaire number (103), equivalent to the percentage (91.27%) from (100%) of total questionnaires.

Table 11: Indicators of urban environment and neighborhood attractiveness

Neighborhood Urban Environment	Neighborhood observations and questionnaire results			
Attractiveness indicators	Railway workers neighborhood RWN	RWN (N=103)	(%)	
Accessibility <i>-Layouts, conditions and comfort of streets and sidewalks</i>	-Safe with some constraining sidewalks -Footpaths with rough pavement & uneven corners	Effective	9	8.73%
	-Easily accessible pedestrianways from all directions. (Not for mobility-impaired users) -Poor maintenance of cycling path -Rush hour congestion hinders accessibility - Constrained parking availability - Street lighting improved -Integration of CCTVs (security systems) -Traffic calming features next to schools	Not effective	94	91.27%
Affordability	-City center proximity increased prices constraining affordability for low- and moderate-income groups	Not effective	71	68.93%
		Effective	32	31.07%
Urban density	-More mixed-use buildings triggered more vibrancy and public realm	Not effective	51	49.51%
		Effective	52	50.49%
Residential density	-Conversion of SFH into MFH and AB increased residential density	Not effective	50	48.54%
		Effective	53	51.46%
Distance and vis à vis	-Decline in privacy after KDR and increasing neighborly conflicts	Not effective	74	71.84%
		Effective	29	28.16%
Open spaces	-Less open space, sun exposure and more vis- à-vis	Not effective	81	78.64%
		Effective	22	21.36%
Vegetation	-Less vegetation cover and access to green spaces after KDR	Not effective	57	55.33%
		Effective	46	44.67%
Cleanliness and waste management	-Increasing waste is due to cleanliness subcontractors' mismanagement not to population increase	Effective	51	49.51%
		Not effective	52	50.49%
Social conditions & networking	-Heightened interpersonal interactions but decreased communal support networks after KDR -The garden provides a meeting place, playground, benches sitting places and bare protection from weather conditions -Shade and shelter layouts are provided by the Garden trees and surrounding coffee shops.	Effective	38	36.89%
		Not effective	65	63.11%

6. Results

Accumulated histories of colonization, trial and error of constantly changing urban policies, and mismanagement by post-colonial regimes are believed to be key factors in deficiencies and shortages.

The process of reinvesting in the existing urban territory has only recently begun, with its pros and cons. First, the shift in land value from patrimonial value to market value per square meter after the 1981 vacant housing law provided impetus for transformation. Second, the economic and political crises of 1986 sparked liberalization and gave land market value in the aftermath of the switch from a socialist to market economy system. Sustainable neighborhood renewal on a restricted house-by-house basis without improving the transparency and fairness of decision-making with clear economic boundaries is challenging. Likewise, KDR lacking mature planning tools and local urban management, is far from being only positive, even if it is still feasible and practical for rundown, old and inefficient properties, it generates substantial unexpected and even adverse effects,

Accordingly, we split the multifaceted findings into five sections, starting with the environmental, urban design, economic, social, and governance perspectives.

6.1 From an environmental perspective:

In the case study, the apartment-based KDR process intensified property ownership, increased building co-ops, and increased the dwelling texture.

The population density rate formula calculates total residents by multiplying occupied housing units and occupancy rate per house (6.7 From the 2008 census). Originally, the 72 houses had a density of 482 residents. After speculation-driven renewal, 46 houses were preserved, and 26 properties were redeveloped into an average 3-unit apartment buildings, resulting in 52 net new units. The total number of units now equals 98, equivalent to 656.6 residents, with a 35% intensification from 20 persons/hectare to 27.

Without ancillary mechanisms, the local environment is enduring adverse environmental effects, such as decayed and congested streets with poor air quality and pollution, accumulated trash, declining greening, lack of parking spaces, and, consequently, straining infrastructure.

The change in urban form also increases energy and water use in the neighborhood, according to residents' responses. 64.1% Of the respondents cited sun exposure and ventilation, while 57.6% of the respondents added the decline of garden surfaces, trees, and vegetation cover.

Concerns about the declining housing situation, social conditions, and the rebuilding process, often characterized by extremely high costs and longer timelines, push many residents to oppose large-scale KDR.

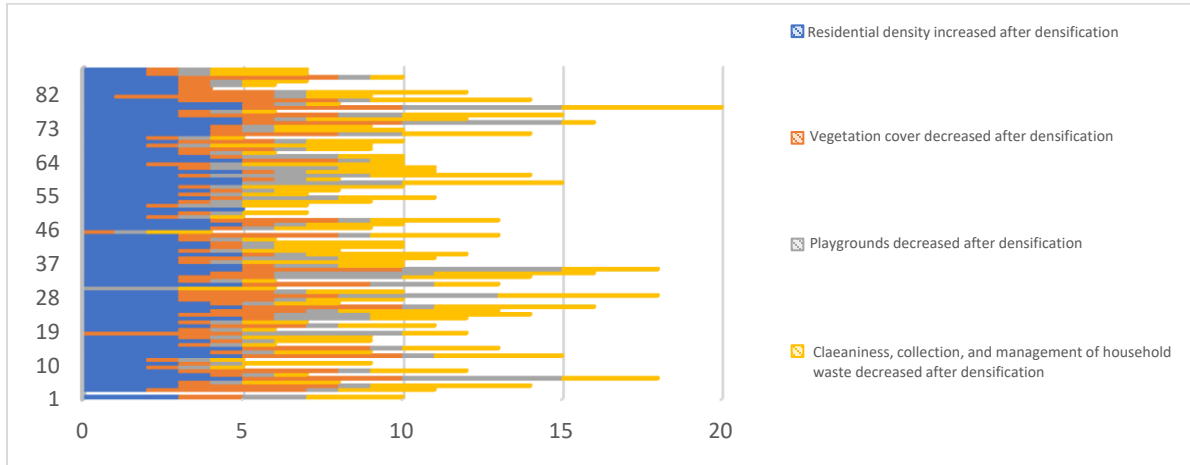


Figure 66: Increasing residential density/vegetation cover, playgrounds, and cleanliness.
Source: Survey results.

6.2 From an urban design perspective

A highly connected grid-pattern road network is beneficial for densification and enhances the communication between urban spaces and buildings. With numerous access points, it ensures a transitional and bridging role. However, the increasing scale of monolithic development leads to a decline in grid pattern permeability.



Figure 67: Figure 6 Building footprint segmentation of RWN
Source: Google earth 2004-2023, processed by the author.

The implementation of housing densification focuses on upgrading physical and demographic conditions rather than improving living conditions. KDR is more common in 40-70-year-old housing due to outdated built forms or inefficient renovations. KDR is

more prevalent in areas parallel to tramways and gardens, with no redevelopment plan, but opportunistic logic. The survey revealed that 80.4% of respondents confirmed that overlooking (vis-à-vis), the distance between newly built buildings negatively impacts privacy. The(re)built environment is not always shaped according to densification capacity; the extreme BCR at ground level is automatic. Horizontal extensions and vertical uplifting often violate regulations, increasing the height and street aspect ratio (Figure 35).

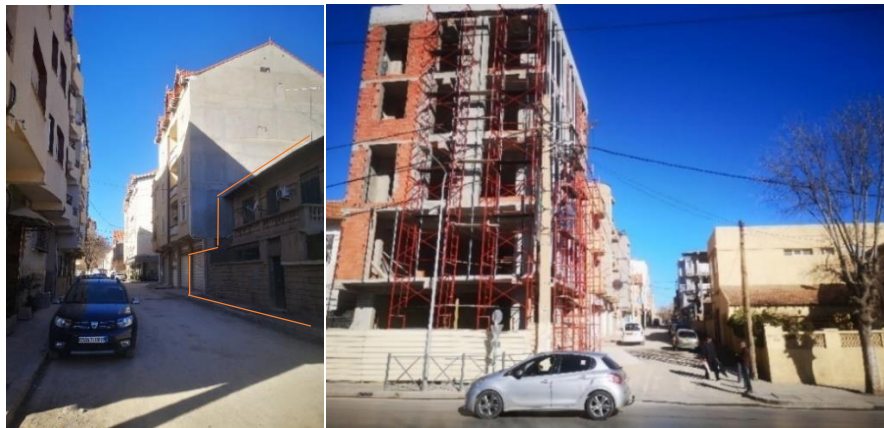


Figure 68: Apartment buildings with increasing FAR in RWN.

Source: Author (2023)

The study found that while ABs in high-density environments offer amenities, transportation, and walkability, discrepancies in physical characteristics and architectural treatment triggered a loss of positive morphological qualities.

6.3 From an economic perspective

Demographic demand for affordable housing is increasing; however, the impact of densification on affordability is complex. Limited land availability and unbalanced density-based housing supply barely ensure housing affordability.

The house price-to-income ratio in Algeria is a reliable indicator of housing affordability (Bellal, 2009), with 71% of the respondents stating ownership as the dominant tenure (CAHF, 2021). Middle-income families need to save annual income for over nine years to purchase an average housing unit. According to the interviewed private real estate agency, the private real estate market in Algeria has seen a 26.1-fold increase in 2022 owing to factors such as location and fame. However, the gap between National Minimum Wage (NMW), approximately \$145 per month (\$1=137.55 Algerian Dinar), that is, 1740 dollars per year in 2023, and real estate developer prices ranging between \$ 8725- \$11632 per square meter is significant. Moreover, 38% of respondents believe that neighborhood house prices are controlled by real estate developers, making private market houses

unaffordable for most Sétifians. Likewise higher prices for newly built houses also cause the housing sector to perform inefficiently in RWN.

According to interviewed single respondents and young couples, the SNR resulting supply has exacerbated affordability challenges for lower- and moderate-income groups, presenting new opportunities for high-income individuals, particularly those who have experienced income shocks or job losses after the COVID-19 pandemic.

6.4 From a social perspective

Social stress, often presented as a direct immaterial consequence of density, appears to have been mitigated by the urban voids. This gender-inclusive urban space element is associated with numerous positive outcomes of urban liveability, such as physical and mental health benefits, as it allows neighbors of different age groups from different blocks to sit together, which is particularly valuable during summer and during Ramadhan after evening prayers. Such a creative strategy is equally valuable for densification, such as a buffer zone for social and cultural activity, which stands for a dialectical amalgam that ties public and private interests, thereby increasing the economic and social benefits for the community of residents.



Figure 70: Previous maze-like garden
Source: Madani,2012



Figure 69: Urban culture activities in the community Garden
Source: Setif.info.com

From garden to playground, and meeting place after rehabilitation, this urban void is crucial to address smaller dwelling units and apartment living resulting from densification (Nebbad et al., 2023). During Covid-19, these voids were valuable assets hosting isolated neighbors (see figure 71).

The co-ownership status, property of "La Société Coopérative des Chemins de Fer de Sétif," and non-transferability have been key to preserving these voids against infill development. Indeed, residents' associations opposed attempts to build the garden, as they considered the high cost of social connectivity, public realm restoration, and the recovery of place memory. A total of 19.7% of the respondents experienced financial, social, and emotional costs of displacement, losing proximity to parents, friends, and relatives, leading to community dissolution and gentrification.



Figure 71: Playground-Garden open space (after renovation)
Source: Author, 2023

Young and elderly respondents expressed confusion about KDR demolitions with its resulting displacement, and dissatisfaction with environment alteration, leading to high costs, inconvenience, and unpopularity (Power, 2010), negatively impacting surrounding neighborhoods.

6.5 From a governance perspective:

The public administration's disengagement in the management of these renewal operations is disturbing and has a negative impact on the quality of the urban environment.

Conversely, as residents acknowledged that private development is not favorable to shared governance, many respondents opposed a top-down structure because it primarily concerns their own built environment and quality of life. Although the survey did not mention governance questions, concerns regarding control and responsibilities surfaced during the interviews. Residents see the limits of a resident-centered approach, and divergence about governance is visible in the answers to open questions. It is fifty-fifty between demanders of top-down regulation and others of dependent residents within a corporate environment, with a complaint system and client satisfaction approach. Such disagreements affect the performance of local management in neighborhood.

The SNR lacks resident involvement in decision making, yet their position is critical; early consultation and inclusion of residents with diverse backgrounds is crucial for the success of urban renewal schemes. Moreover, top-down regulations or voluntary standards are not the only mechanisms to achieve sustainability in urban development but co- or self-regulation.

7. Discussion

In the late 1980s, public spending cuts led to a shift in housing policy funding, resulting in the withdrawal of costly housing and refurbishment programs and prioritizing new housing units over preserved dwellings. Consequently, housing renewal actions are changing hands, due to the inability of existing institutions to provide new housing at a local pace (Djafri & Osman, 2021).

When public administration is increasingly disengaged from urban renewal, the private sector's growing involvement in KDR is seen as a gentrification driver favoring speculative markets and real estate development. Indeed, with building from scratch becoming a "legitimated" tool, 69% of respondents viewed the trickle-down public strategy and laissez-faire attitude as abandonment, with concerns that local authorities may relocate residents far from social networks.

The study found that inadequate inherited housing stock, unbalanced supply and demand, and delays in public rental housing programs exacerbate space shortages in growing families. Real estate developers capitalize on this opportunity to increase housing density and thereby their profitability. New speculation protagonists often purchase older central leases of low-income and middle-class tenants, who are vulnerable to tempting offers. However, certain housing stock types and locations are more vulnerable, such as blocks surrounding the garden, which are undergoing deep regeneration due to access to green spaces and recreational opportunities (Figure 39).



Figure 72: Redevelopment magnets

Source: Author, 2023

Multimodal transportation axes such as buses, taxis, trains, and trams are being implemented as thoroughfares with mixed uses and commercial functions. Road networks, particularly tramway parallels, offer services accessible by car and walkable distance. Location, housing ownership, and city-center distance are important factors in creating identity and social status. The key drivers of SNR include the growing household needs for accommodation, identity creation, and income generation.

31% of the respondents approved the shift to multi-family housing (not necessarily in AB), but 63% confirmed the emergence of a new pattern of apartment buildings in the RWN (figure 40). With more than 26 KDR (37%) of the total 72 houses (figure 35), we reiterate this shift in housing pattern and typology, increasing the population density by 35% and even higher around the garden and multimodal transportation axis (figure 39). Both the surrounding neighborhoods and city centers experience spillover effects.

The interviewed developers confirmed that they prioritized maximizing FAR over plot and block structures by doing so they ignore the integration of buildings with other morphological elements. They neglected other elements, such as the size, proportion, and style of the openings. This has led to increased building coverage, heterogeneous urban patterns, and vertical roughness, thereby creating a patchwork landscape. Renewal was limited to replacing semi-detached villas by pitched roofs with augmented-rise flat-roofed blocks, affecting housing stock consistency and negatively impacting infrastructure, facilities, and satisfaction, particularly in historic urban areas. This disregard

for part-to-whole relationships in urban form has significant implications for housing infrastructure and satisfaction.



Figure 73: New typologies Luxurious villa and villa-like apartment building.

Source: Author 2023

The involvement of building professionals in neighborhood renewal has led to increased speculation and a surge in prices owing to the focus on redevelopment potential and densification capacity. This urban dynamic has resulted in significant price increases in the first and second crown of the city over the past three decades. This intensified speculation led land prices to boil, condemned traditional urban fabrics, and proposed functional solutions to transform architectural and urban morphology, evolving from a single plot of SFH units into large-scale MFH blocks and AB (Figure 41). In addition, large-scale neighborhood renewal has accelerated.

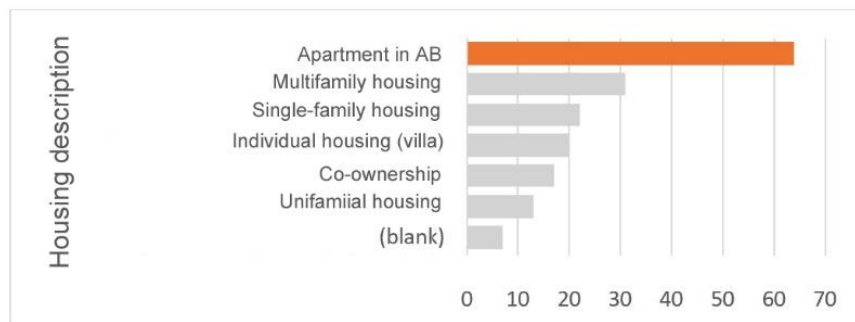


Figure 74: Shift in housing type and typology from SFH to AB

Source: Survey results

However, the change in urban form is not systematically an adverse effect, but when coupled with vis-à-vis and the decline in garden surfaces, trees, and vegetation cover. By 2023, some demolished properties with high potential are still vacant despite the decline in prices after apartment building permit bans.

A part-to-whole renewal scheme can offer energy and time savings, economic advantages, and community benefits, thereby contributing to a sustainable environment. Furthermore, a participatory approach and local management are crucial to mitigate residents' reactions.

8. Integration of Geographic Information System

8.1 Definition of GIS:

Recent research focus on the geographic information system in analysis of urban areas. GIS have become a robust system for the comprehensive investigation of complex urban phenomena (A. Zhang et al., 2021) and tasks within a neighborhood context as a tool for mapping, compiling, and analyzing patterns and processes of socio- economic and environmental urban neighborhood distribution and functioning, as well as simulation of the different attributes of these parameters.

Further, the purpose of GIS modeling in a situation such as this is not just for simple predictions but for an interpretation of complex datasets. It means that the capacity of multivariate spatial analysis enables the researchers to gather and analyze a large pool of data needed to process data through priorities in the solution of various urban planning issues. Malczewski (2004) defined GIS based land-use suitability analysis, which is the process of overlaying multiple data layers and criteria where the different scenarios are assessed and, ideally, the decision for use of a location for a particular function is made with full spatial understanding.

Experience has shown that utilization of high-resolution satellite imagery, aerial photography, and remotely sensed information makes it easier for users to get a clear view of the morphological structure of neighborhoods, and the general pattern of land uses as well as the spatial distribution of amenities and services within urban areas.

In GIS, data representation can be divided into two categories: The spatial data is used to locate the spatial features in terms of:

- Absolute and relative positioning while the attribute data (also referred to as tabular data) provides information on the characteristics of the spatial features. Accessible information from GIS analysis of broad socio-economic data would

therefore help the urban planner/architect understand the dynamics of a neighborhood and where and how urban development is likely to influence/exacerbate detrimental socio-economic changes or on the other help identify areas of potential benefit /focus for positive change.

Furthermore, GIS embraces the practice of integrating community insights and local expertise and management into analysis. It works towards making the decision-making processes more comprehensive and culture-specific urban planning approaches and initiatives, adaptable to each area's contexts, and towards the formation of better cities with more sustainable and socially inclusive community environments.

8.2 GIS Methodology

The study's method that is used in this work is the Grid system (Carroyage), which is the cartographic method where the area to be studied is divided into by square units, and then geolocated on the given area of study. This method is more advantageous because it provides a detailed spatial data while at the same time is applicable on the massive area of municipal territory under investigation.

The Grid technique has several advantages over the conventional mapping techniques: It ensures coverage of the whole study area with no missed areas, owing to the efficient incremental approach of the Grid. This technique is in a grid form and thus lends itself easily to geographic information system (GIS) work, especially where remote sensing data are involved. The uniformity of the grid system minimizes the variability that can be inherent in some methods of division.

In this research, a square grid that has a cell size of 0.05 was overlaid with the municipal boundaries of the study area using the ArcGIS software. This cell size was selected after an experiment with an aim of having high spatial resolution that would be able to capture fine patterns of the study area as well as keeping the results manageable, not to cause arise of many similar results in the analysis.

The Grid system technique used here was adopted as a framework for organizing data collection, analysis, and decision-making on the scale of the study area. The grid lenses such as the remotely sensed imagery, topographic maps, and other data sources were also cascaded according to the aforementioned grid cells. This way, an efficient mapping

and analysis of variables of interest at the scale of the study area were possible, including LULC¹⁵.

Further exploratory analysis, including spatial statistics and analytical, modeling and visualization tools were also conducted within the Grid environment. This was a deliberate approach since it would allow for a homogenized and harmonized interrogation of the research questions. The gridded structure of the dataset was also a plus as it allowed for application of spatial autocorrelation and other forms of neighborhood analysis which are particularly important for identification of spatial dependencies and relations within the densification process.

Nevertheless, it should be noted that the Grid system technique has its constraints: the regular grid created can distort certain natural and anthropogenic boundaries by disproportionate distribution and may thereby bring about edge-effect or spatial mismatch issues. The choice of cell size can in a way dictate the level of detail captured and the subsequent analysis; therefore, it is crucial for a thorough evaluation and sensitivity analysis of each selection.

Nevertheless, there are some conceivable drawbacks associated with the formalism of the Grid system approach. Yet, it is safe to estimate that the Grid system approach is a rather unassailable and vigorously applied method of cartography especially with the aid of GIS. Its systematic and comprehensive nature as well as compatibility with the remote sensing and other analytical geospatial instruments make the Grid approach an advantageous research paradigm for studies of spatial relations in large geographic areas.

8.3 Steps and process:

To achieve the expected outcomes, including land use Floor Area Ratio (FAR) and elevated construction heights within the neighborhood using the Grid method in ArcGIS software, follow these steps:

8.3.1 Data Preparation:

- Collect appropriate data which would consist of the digital elevation models (DEM) of the area of interest, land use data, and other data relating to the heights of the buildings in that area.

¹⁵ Land use/land cover integrated from remote sensing, field survey or detailed maps and models. LULC is used by planners for decision-making developing infrastructure, regulating zones, and managing urban growth.

- Verify that the datasets provided are in a format that can be used by the ArcGIS software.

8.3.2 Create a Grid:

- Use the Create Fishnet tool in ArcGIS to generate a grid over the study area.
- Correctly choose an appropriate grid cell size for the given data to get the required resolution for the analysis.

8.3.3 Spatial Join:

- Also generate a spatial join focusing on the created grid with the land use added to it.
- This step helps in allocating every grid cell with the appropriate land use type.

8.3.4 Calculate FAR:

- This total the area of floors in grid cell will be determined by the area of that grid cell multiplied by the mean floor area per unit area for that grid cell.
- Impose a grid cell of a predetermined size over the total floor area and find the Floor Area Ratio (FAR) of each cell division.
- This process is helpful in generating an approximate value of land use intensity for a given land cover class within the grid cell.

8.3.5 Assess Building Heights:

- User should input _building height_ data or extract _building heights_ from the DEM data.
- Calculate the maximum building height of the cell having the given grid reference.
- This step enables the determination of the particular zones in the neighborhood with escalated construction heights.

8.3.6 Spatial Analysis:

- Conduct additional mapping analysis that would involve either interpolation or spatial statistics if the previous results are not clear or if spatial relations or trends of the variables under consideration need to be discerned.
- Determine the trend in the FAR values and increased construction heights in the spatial analysis of study area.

8.3.7 Visualization:

- Present the outcomes with the help of specific maps, one of which can be meant to display FAR values – choropleth maps, while the second one can be used to visualize building height – elevation maps.

8.3.8 Interpretation:

- Response to Research Objectives and Hypotheses: It is worth reflecting on the results in the context of the study's goals and postulated assumptions.
- Define zones with high concentrations of FAR or increased building height and establish correlation with concerns regarding city planning, construction legislation, or environmental effects.

By applying each of these functions within the context of this study conducted in the Grid system in ArcGIS, it was possible to undertake operations on intervals of datasets required to extract percentage of FAR mainly of the neighborhood, and heights of constructed buildings among other variables that helped in the achievement of the set goals and objectives of this research. This Good practice supports cross-functional coordination of renewal operations and decision making to maximize value.

8.4 Value for Coordinating Renewal Operations and Decision Making

Thus, the Grid technique, the use of both raster and vector data, has their ad hoc role in handling renewal operations and coordination of decisions in urban planning. At a wider view of the study area, the provision of a systematic map. It helps to establish patterns and trends that are not seen when the area of study is small. This can pass useful information about renewal goals and potential resources for renewal initiatives and which types of interventions can be most efficient.

Moreover, GIS and RS data enable us to combine a great deal of information as different data sets such as land-use and slope, land cover data, population density, and income levels. This can be useful in gaining a better understanding of the area of focus for the study and can assist in discovering what needs can be addressed, what kind of challenges may exist and where there is potential to rejuvenate and revitalize.

Densification operations, illustrated on GIS map 1, take place in the case study neighborhood which is arranged in the form of a grid following Satellite image from 2004. This particular map reveals different kinds of land utilization together with the condition

of building with every single cell of 5 meters meaning a section of a block within a neighborhood concerning its status of becoming urbanized or else diminishing.

8.5 Densification and Development classes:

- **Built (colonial period):** These cells in dark green correspond to former, historically significant structures. Their distribution appears relatively scattered, indicating that these buildings have been largely surrounded or replaced by new developments.

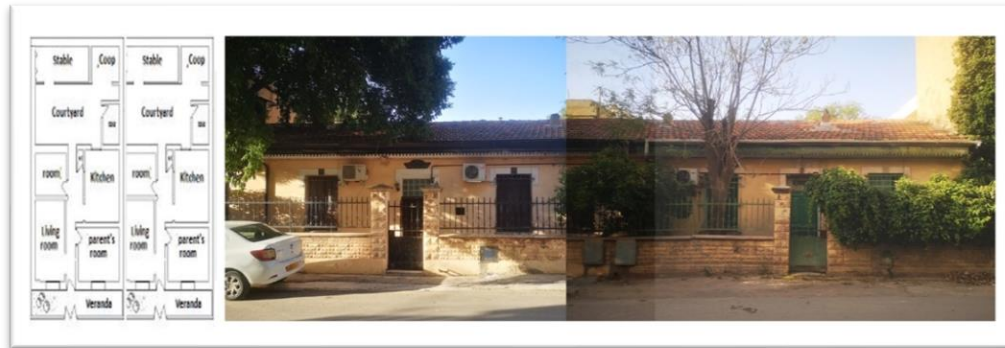


Figure 75: 1st main typology, Row "Veranda" houses (colonial period)
 Source: Author, 2024



Figure 76: 2nd main housing typology (colonial period)
 Source: Author, 2024

- **Built (soft densification):** Yellow colored, these areas represent buildings being changed to adapt to evolving need through adjustments, adaptation and (soft) transformations without radically changing the landscape or infrastructure density. This might include "bulking" operations extending FAR, building additional rooms to accommodate the growing families or new activities.
- **Built (Hard densification):** Contrasting with the yellow ones, the red colored spots denote significant new development has altered the morphology of the plot, likely

involving larger housing structure or apartment buildings that subsequently increase the density of the urban fabric substantially. This type of development is more prevalent in certain blocks, suggesting targeted development efforts.

- **Built (Dilapidated building):** Highlighted in lighter green, these areas include structure in decay, indicating the end of a cycle, likely a contentious property of heirs burdened by renovation costs despite recognizing urban renewal might be necessary or is possibly underway.
- **Non-Built Areas:** The white spaces indicate plots cleared of construction, or urban voids and public spaces. These might include undeveloped plots, demolished properties, or easements, gardens and areas preserved for future development or land speculation.

8.6 Spatial distribution and Urban planning implications:

The patchwork pattern of development types suggests a neighborhood in transition, where new development coexist with old, including dilapidated structure in loss of speed. Furthermore, the interstitially present non-built spaces withing the densely built environment suggests brownfields and opportunities for infill development or green spaces, which could enhance living conditions and property values overall.

8.7 Pie chart analysis:

The pie chart provides a quick visual summary of each development type. This was included on top of the map to the right to help understanding the dominant urban characteristics and the varying conditions of the buildings within the neighborhood in transition at first glance. Strategic interventions could strike a balance between challenges and opportunities in such a context.



Map 2: GIS map of built environment classes in RWN, 2004
Source: Author, 2024

Map 3 presents the evolution in 2014, with the introduction of two new types in addition to the 2004 ones, retaining the same grid system and color coding:

- **Built (Demolished construction):** Highlighted in light yellow, indicating areas where structure have been cleared, possibly for new construction by owners or real estate developers intending to maximize FAR and Height and subsequently profit when selling new housing units.
- **Built (Refurbished construction):** Indicated in light green, these spots correspond to areas undergoing renovation by the same or different stakeholders, suggesting attachment or efforts to update and possibly to preserve existing structures rather than replacing them and building from scratch.

8.8 Evolution from 2004 to 2014:

8.8.1 Increase in Hard Densification:

There appears to be a significant increase in areas marked as “Hard densification” in red, particularly in central zones of the neighborhood (see map 3). This indicates a trend towards more intensive development, aligning with increased demand for urban space

occurring with new housing programs catalyzing speculation while allowing heirs to access housing property (AADL 2013) at the expense of location and social networks.

8.8.2 Introduction of Refurbishment and Demolition:

The presence of refurbished construction possibly indicates a move towards sustainable urban renewal by upgrading existing infrastructures rather than new standalone constructions.

8.8.3 Decline in Dilapidated Buildings:

A comparison with the previous map from 2004, presents a decrease in dilapidated buildings (light green in 2004 map), replaced either by refurbished building or new constructions likely remaining single family housing or shifting to multifamily housing, reflecting improvements in housing quality and urban aesthetics.

8.8.4 Continuity in Soft Densification:

The prevailing yellow color mirrors extensive soft densification, suggesting a reiterated attachment and continuous approach resisting change, moderating urban expansion, and possibly aiming at preserving the neighborhood character.

8.8.5 Implications on neighborhood scale:

The transition during (2004-2014) shows a strategic shift toward a more controlled and possibly balanced urban development model. The increase in hard densification combined with efforts in refurbishment indicates a dual approach to accommodate growing families and residents while maintaining the quality of existing urban fabric. The introduction of a demolished areas could point to more aggressive strategies propelling speculative renewal to neighborhood scale, possibly driven by critical infrastructure needs or organized developers capitalizing on the added value of the tramway as a new transportation infrastructure modernizing urban environment.

Transit infrastructure such as tramways are a desirable neighborhood amenity that have proven significance as a crucial driver of housing transformation and densification. On one hand, these public investments can trigger increased property values and rents, enhancing attractiveness and accessibility to jobs, opportunities, and other destinations, enabling the affluence of mixed-use activities. On the other hand, such development dynamics often result in outweighing nuisance, traffic, and crowding experience in addition to price premiums that follow this proximity (Zuk et al., 2018).



Map 3: GIS map of built environment classes in RWN, 2014

Source: Author, 2024

The 2024 GIS map presents a further evolved urban landscape in the RWN of Sétif, illustrating a continuation of housing densification trends observed in the 2014 and 2004 maps. For a better understanding it is more convenient to split our analysis into two distinct decades before wrapping up relating the evolution over both periods.

8.9 Progression during (2014-2024):

The 2024 map shows an increase in "Built (completed Construction) colored in pink, presenting an accelerated phenomenon of newly built constructions suggesting the end of adaptation renovating existing buildings and adjustment cycle with a focus on KDR, with a clear transformation of the urban fabric, extending horizontally and more likely vertically too (see map 4). This indicates an emphasis on speculative renewal considering not only locations along the main axis but also the proximity to the urban void corresponding to the public space and playground as an asset, while upgrading housing standards often in apartment buildings.

8.9.1 Continued Hard Densification:

Similar to the transition observed in 2014, the “Built (Hard densification)” (red) areas remain prominent, demonstrating ongoing efforts to intensify development in certain neighborhood sectors to accommodate increasing demands.

Reduction in Demolished Constructions: The decrease in light yellow cells or the “Built (Demolished construction)” compared to 2014 might indicate that major demolitions have been rebuilt or are under construction.

8.9.2 Persistence of Non-Built Areas:

Non-Built Areas (light green) continue to exist within the urban matrix, which may reflect either preserved green spaces, crucial for vibrance and public realm or reserved land for future development especially after construction permits ban for apartment buildings, showcasing a standby waiting for the new legal framework to unblock a profit-based developments.

8.10 Comparison with 2004:

The evolution from 2004 through 2024 presents a significant transformation process where initial sporadic renewal operations of dilapidated properties give way to structured densification and refurbishment. This reflects a new real estate redevelopment logic corresponding more likely to a Speculative Neighborhood Renewal revealed by the survey (see table 9), impacting particularly the “Built (Dilapidated Building)” type, that transitioned into either refurbished or newly constructed sectors. This shift demonstrates an active renewal approach aimed at improving living conditions and neighborhood attractiveness.



Map 4: GIS map of built environment classes in RWN, 2024
 Source: Author, 2024

The (2004-2024) comparison reveals a narrative of gradual densification and depicts a journey of urban renewal that features the multifaceted process facing challenges increasing demands, land scarcity, local urban management, historical value conflicting with modern needs.

Finally, we have chosen an integrated map format to present the ongoing process over the two last decades. For instance, the pie chart provides a quick visual summary of each analyzed decade, to help understanding the increasing phenomenon altering urban characteristics and the renewal locations within the neighborhood.

Strategic interventions could strike a balance between challenges and opportunities in such a context.



Map 5: Recapitulative GIS mapping of the evolution in 2004, 2014, and 2024.
Source: Author, 2024

8.11 Observation highlights (Building conditions):

The following bar chart (figure 77) titled “Different Classes and Building Conditions” exposes different conditions of the buildings and various approaches to (re)develop properties. Five distinct categories can be observed; Non-Built, Built (Soft densification), Built (Hard densification, Built (Dilapidated building), and Built (Colonial period).

- **Non-Built Class:**

This is the peak as the highest bar reaches 60,000 corresponding to a total area of 6 hectares, including streets and open public space, but also indicating cleared plots/blocks or early stages of construction after demolition.

- **Built (Soft densification):**

This class is also showing a significant number, around 50,000 corresponding to a total area of 5 hectares, including, housing improvement, refurbishment and embellishment, some extensions and likely soft densification.

- **Built (Dilapidated Building):**

This class shows almost 25,000 which makes aging buildings covering a total area of 2.5 hectares characterized by poor condition while likely being vacant or inhabited by heirs.

- **Built (Hard densification):**

Although this building class shows a smaller total area with approximately 12000 equivalent to 1.2 hectares, hard densification suggests areas with housing densification likely stacking floors or rebuilding higher, more compact apartment buildings and developments with higher intensity.

- **Built (Colonial period):**

With the smallest class, the inversion of proportions between newly built and former buildings is striking. The number 7000 corresponds to the total area of remaining buildings dating back to the colonial period.

8.12 Discussion (Building conditions):

The prevalence of non-built areas do not systematically suggest availability of “empty pockets” and high densification potential in the neighborhood, but that undeveloped often demolished land is considerable. This might be due KDR operations, ongoing construction, or developers waiting for construction permits after apartment buildings ban. Concurrently the duality between soft and hard densification reveals a real urban dynamic in the neighborhood. Additionally, the large number of dilapidated buildings shows the renewal potential and relevance of the study to guide the ongoing scattered operations towards a coordinated future neighborhood renewal. Furthermore, the standing buildings from colonial period, remind of the historical character and possibly reflects a limited preservation and neighborhood resilience.

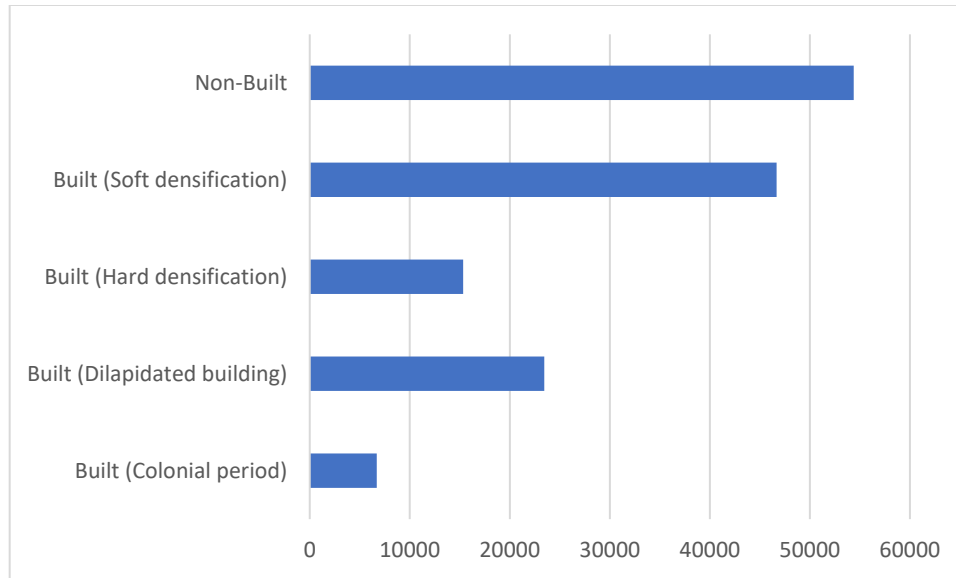


Figure 77: Different classes and Building Conditions
 Source: Author, 2024

8.13 Observation highlights (Green area/ non-built):

Bar chart (figure 47) titled “Evolution of Green Area 2004-2014-2024” exposes the process of change affecting non-built and green areas across the T1 (2004), T2 (2014), and T3 (2024) in the RWN undergoing KDR.

- **2004** Around 1.3 hectares of total area/ 23,000 units of non-built.
- **2014** Minimal green area/ nearly negligible non-built.
- **2024** Approximately 3,000 units (renovated) green area/ around 2,000 units of non-Built

8.14 Discussion:

- **T1:** Total amount of green and non-built area was significantly high, suggesting resistance to change and densification potential.
- **T2:** Drastically decreasing green and non-built areas, indicating saturation of urban fabric and large-scale redevelopment
- **T3:** The renovation of green spaces such as the public square (garden and playground), led to the resurgence of green area (approximately 3,000 units), while the non-built areas remain minimal (around 2,000 units). This suggests the pursuit of densification trend and the new housing typology.

Over the years, the relationship between non-built areas and green areas has evolved from a more open, vegetative landscape in 2004 to a densely built environment in 2014

and finally to a more balanced but still intensified landscape in 2024 with attempts to reintroduce green areas into new housing patterns and preservation of green space.

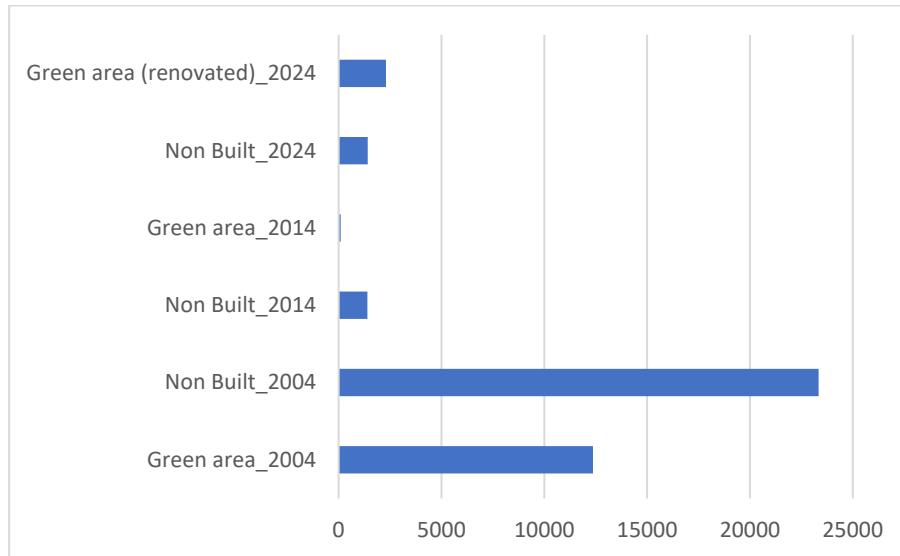


Figure 78: Evolution of Green Area 2004-2014-2024

Source: Author, 2024

9. Second case study

In this section we will try to present a detailed analysis of Cité Bon Marché actual Tlidjene neighborhood as a unique example of duplicated renewal operations on the same site in different context but similar logics and outcomes.

- Why this case study in particular? And what are the similarities with RWN (Cheminots)
- How did the conversion of this settlement, initially intended for a rural population from the southern region to a European garden city-like neighborhood?
- What made this neighborhood end up the object of desire for a real estate speculator named Charles Levy?

To answer these questions a combined method of historical document analysis, observation, and site investigation were adopted.

9.1 Historical context:

Initially, in 1881, the municipality took over the leasing and monitoring of the once called "Village Negre" that was designed to support an agricultural economy located southwest of the city, beyond the railway and rail easement. This cleared site highlights the historical

transition from an agricultural settlement to a region marked by urban development of the active urbanization period and real estate speculation (see chapter 6, p 14). Again, to a pericentral neighborhood underscoring densification and urban renewal dynamic.

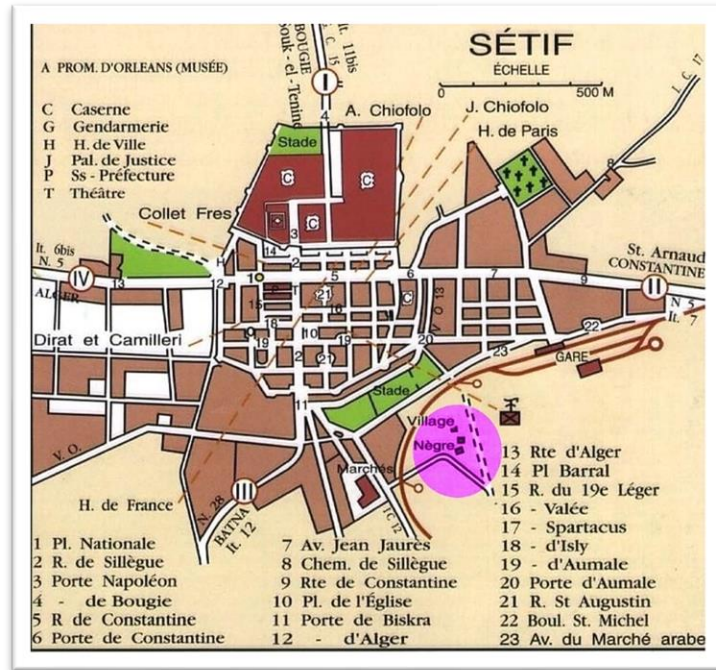


Figure 79: Plan of Setif before 1930

Source: Guide Michelin Algeria, Morocco, Tunisia edition 1930. ph. J.L. Charmet.

The historical context of Sétif, particularly the colonial and post-independence periods, reveals a pattern of spatial segregation and architectural transformation. After the City Council "Hygienic" proposal in 1922, an unprecedented example of slum clearance in Algeria was initiated with the creation of the first peri-urban indigenous settlement named "Bel Air," in 1923 to "rehouse" or relocate and uproot families from rural areas living south of the city in precarious conditions, known at the time as the "Negro village" in a segregated closed village of subsidized housing that consists of small houses equipped with essential amenities: running water, electricity, and sewage systems.

This initiative was complemented by the provision of dispensaries, communal schools, and artisanal workshops. Even if this pioneering endeavor showcases at first glance the colonial administration's approach to urban planning, characterized by a clear demarcation between European and indigenous populations, laid the foundation for a comprehensive approach to urban planning and community development, integrating essential services and infrastructure to enhance the quality of life for its residents, it hides profit-based urban development strategies and their lasting socio-economic implications

and illustrates the profound impact of real estate speculation on community displacement and urban planning that we are aiming to uncover through the case study analysis.

9.2 Case study presentation

The second case study neighborhood, originally established in the 1930s as the "Cité Lévy" (after the landowner) or "Cité Bon Marché," was officially renamed "cité Tlidjene" after independence. However, it is still commonly referred to as the "Boumarchi" district. Tlidjene neighborhood embodies the complex legacy of colonial-era urban planning within Algerian cities, particularly Sétif. Envisioned after relocation of Negro village inhabitants and southern site slum clearance as an affordable housing HBM (middle-income) residential suburb for the European population during the French colonial era, this 42-hectare garden city was meticulously designed with detached, single-family "villas" on individual plots, set within an orthogonal street grid distinguished by its tree-lined avenues devoid of commercial activity, reflecting the hygienic ambitions of French urban planning at the time. Initially comprising 150 villas, each with its own garden, the neighborhood later expanded to 220 units.

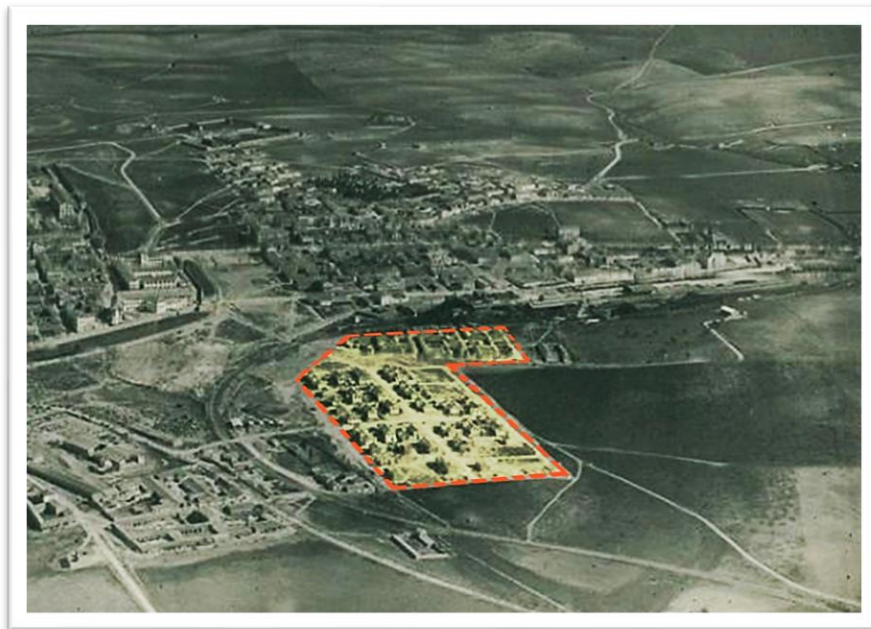


Figure 80: Aerial view of Setif around 1933

Source: <http://www.algeriemeracines.com/famille/page-photo-famille.php?id=26994&idfamille=lucette-valentin-oran>

9.2.1 Strategic location:

Strategically positioned near the city center yet demarcated from it by railway tracks, Tlidjene's borders were delineated by significant urban landmarks, ensuring its integration

with the broader urban fabric of Sétif. Its northern boundary was defined by the railway track and the city center, while to the east lay the Kherata district, to the south the southern ring road, Aboubaker Karaoui High School, and the El Khansa Institute (Mohamed Khemisti Middle School), and to the west the railway and the APC park.



Map 6: Location of Tladjene neighborhood
Source: Google earth 2024

Access to the neighborhood was facilitated from four directions: from the north via a bridge over the railway, from the east via the southern ring road, from the south via the intersection with national road 75, and from the west via a level crossing near the Bizard district.

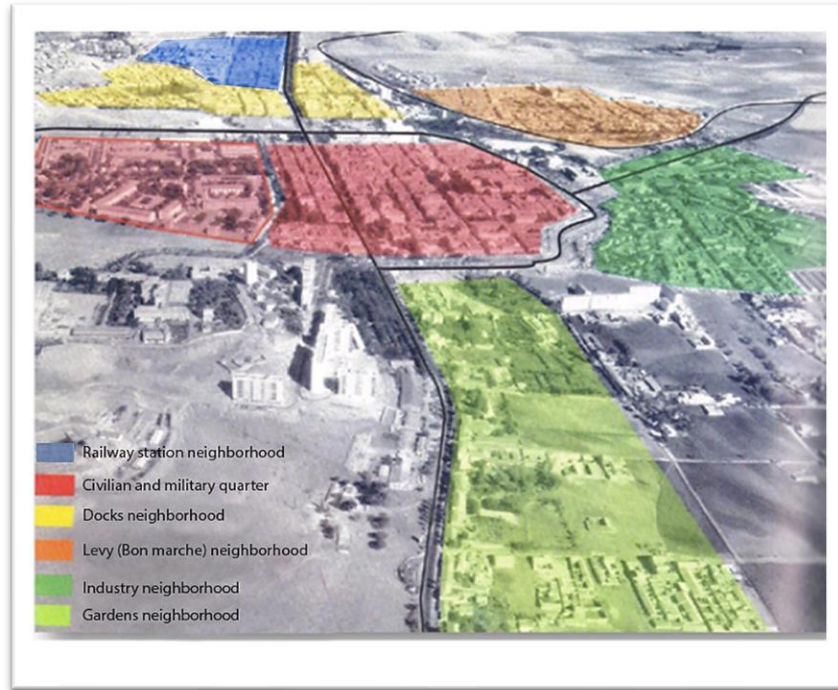


Figure 81 Aerial view of Sétif around 1940

Source: Karim Chaibi "from Sétifis to Sétif", edited by the author

In the architectural planning of urban environments, a meticulous and deliberate implementation of a checkerboard layout is employed, meticulously integrating the symbiotic relationship between edifices and their corresponding plots. This intricate spatial organization not only enhances the efficacy of land distribution but also fosters a harmonious urban fabric, thereby optimizing spatial utilization and minimizing associated costs.



Figure 82: Tree-lined ex Gambetta Road in former Levy neighborhood

Source: <https://www.vitamedz.com/fr/Algerie/Sétif-cite-levy-gambetta-131360-Photos-0-20155-1.html>.

9.2.2 Transition from European Middle-income suburb to Algerian neighborhood:

The initial settlers of this neighborhood were primarily French teachers, individuals of Algerian descent, military personnel, and police officers, forming a diverse community where individuals from various religious backgrounds, predominantly Jews and Christians, as well as some indigenous people, coexisted harmoniously. However, after Algeria's independence, French residents fled the country, with many abandoning their homes, while others had previously sold their properties to Algerians. According to eyewitness accounts, "During the celebrations of independence, numerous city residents forcefully took over these homes; emerging from the hideouts, armed, they claimed the villas for themselves. Subsequently, many sought neighborly affidavits to secure property deeds."

In its early years, Tlidjene was a tranquil oasis, where the scent of gardens and flowers wafted across the bridge. During the summer months, the neighborhood enjoyed a serene atmosphere, with the tranquility of the midday siesta undisturbed by the sounds of vehicles or children playing, fostering an environment of mutual familiarity and respect among the residents. However, over time, the original Bonmarché houses and their accompanying gardens underwent a gradual transformation, disappearing from the landscape of the area.

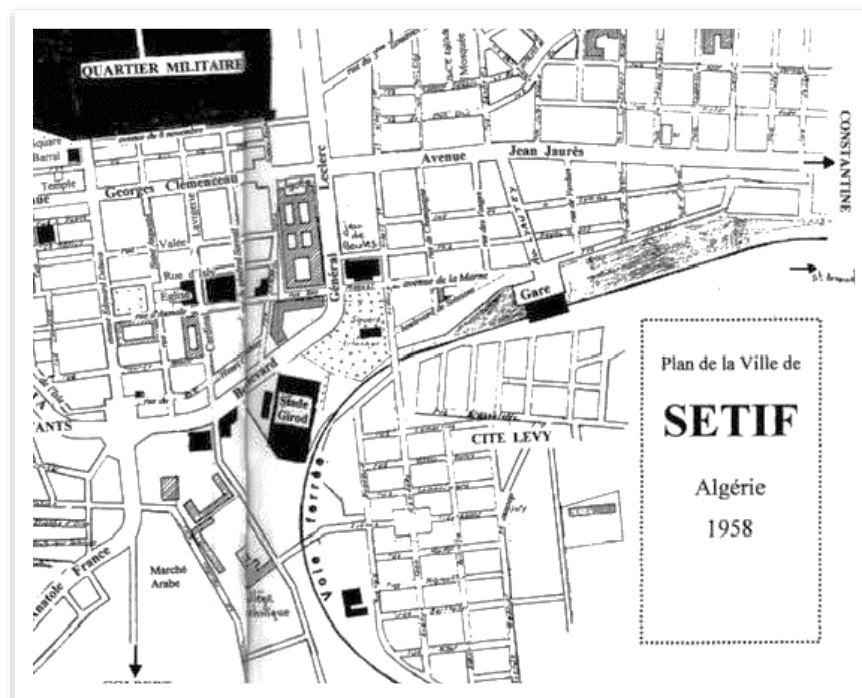


Figure 83: Tlidjene "Levy" neighborhood in 1958

Source: http://tenes.info/nostalgie/SETIFCARTES/S_tif_Le_plan_de_1958

While urban development and dynamic in the neighborhood exemplifies the historical and current processes of negotiating space, time, and population. The subsequent transformation and redevelopment highlight the dynamic interplay and the spatial reconfiguration at the expense of increased social segregation, that have shaped its current urban fabric and still correspond to nowadays' reality.

9.2.3 Post-independence transformations

Following Algeria's independence and the subsequent departure of European settlers, the inhabitants from the outskirts and countryside of Sétif suburbs reclaimed their territory and occupied the vacant housing in the colonial city center, which had exerted a centripetal force on the local population (Côte, 1988). The Algerian occupants, accustomed to living in the "ayla" (literally, the extended family) in large, expandable houses that accommodated the growing needs of children, encountered spatial constraints and inadequate layout in the vacated dwellings, as these were designed for a different population and household structure.

Confronted with alarming average occupancy rates and the inability to adapt the existing housing stock to meet evolving family dynamics, transformation became an inevitable necessity in Tlidjene. Initially, owner-driven housing densification through roof stacking and bulk rights emerged as a viable solution to address housing shortages while preserving the character of neighborhoods. This approach facilitated the accommodation of growing families without drastically altering the existing urban fabric.

The post-independence era was characterized by a gradual adjustment and commodification that affected both collective and individual types of inherited vacant housing stock, as well as the adaptation of social practices by Algerian inhabitants. In fact, the neighborhood's transformation was not merely physical but also socio-cultural, reflecting shifts in ownership, usage, and identity.

Originally designed as a residential enclave, yet streets occupy around 15% of the total surface area (figure 46), the Tlidjene neighborhood evolved due to development pressures, its strategic location, and residents' growing needs, leading to the emergence of commercial activity hubs. The mechanical and pedestrian flow is an indicator of urban dynamism. Intense traffic is observed on the southern bypass, as well as on Djaref Mohamed, Saber Mohamed, and Kerkour Diab roads, which connect the neighborhood to the city center. Such avenues experienced an urban shift from residential to commercial use, (figure 48) accompanied by significant transformations, including increased plot

density and the drastic reduction of green spaces, signaling significant changes in land use and architectural character that once defined the neighborhood (figure 50).



Figure 84: Tladjene neighborhood under densification and redevelopment
Source: URBASE, 2023

The built area in this section occupies a significant proportion of the plot's surface area, exceeding 80%, while the unbuilt area comprises the remaining 20%. The block emerges as the structuring element, exhibiting by its size and morphology a distinct and well-defined relationship with the street (figure 47). Notably, there exists an integration of the buildings with the plots, wherein all the dwellings are arranged within the block following a balanced plot subdivision, employing the typology of a house with a garden.

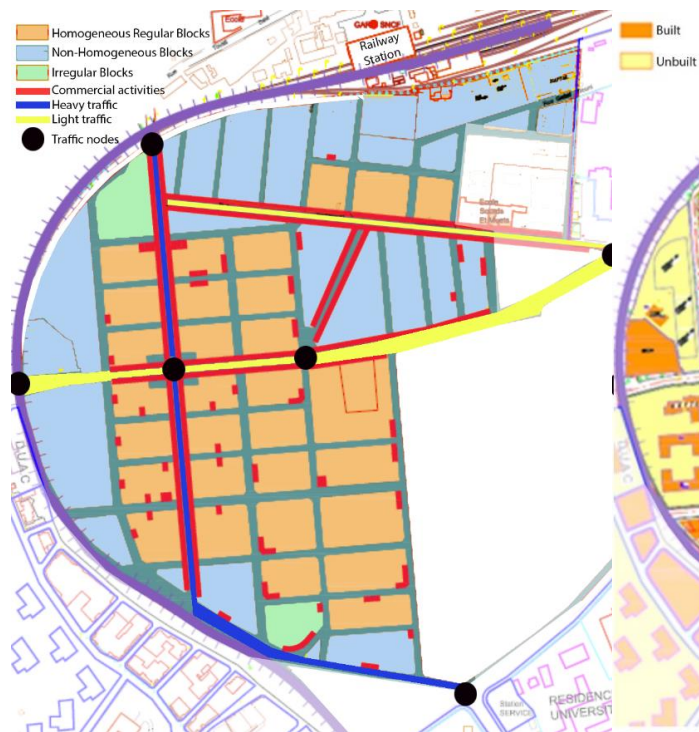


Figure 85: Blocks, traffic and activities in Tlajene
 Source: Author, 2023



Figure 86: Built and Non Built in Tlajene
 Source: Author, 2023

Such a configuration ensures seamless accessibility and fosters a sense of community connectivity, embodying a strategic approach to urban design aimed at harmonizing the built and unbuilt spaces. This not only elevates the functionality and aesthetic allure of the area but also establishes a cohesive equilibrium within the urban landscape, thereby contributing to the overall harmonious coexistence of its various components.

9.3 Classification of Urban Blocks:

9.3.1 Homogeneous Regular Blocks:

These blocks are found in the residential area and the 'European bon marché' district. In this region, each block forms a distinct physical unit that can be easily identified and maintained. Furthermore, these blocks constitute a coherent unit within the urban structure, exhibiting near-identical characteristics (Figure 48).

9.3.2 Non-homogeneous Regular Blocks:

These blocks are located in the 'Arab bon marché' area and vary in size from small to medium. While they are easily recognizable by their geometric shapes, these blocks do

not form a cohesive unit within the urban structure due to their diverse forms, including triangular, square, and other configurations.

Contrastingly, in the "French section" of Bon Marché, the plot typologies have evolved to become more conducive to real estate investment. This evolution is characterized by improved legibility and permeability, evidenced by broader streets, increased parcel sizes, and extended building facades. These modifications have led to a divergence in the area's original urban texture, either completely or partially, creating a stark contrast with the "Arab section." The latter, perceived as less attractive for investment, has propelled heirs to undertake the reconstruction of apartment buildings on their own. In their efforts, they aim to preserve the original architectural essence and plot division, facing challenges in redevelopment due to the less appealing investment qualities of their plots. This dichotomy in urban development strategies underscores the complexity of maintaining historical architectural integrity while adapting to contemporary urban investment trends.

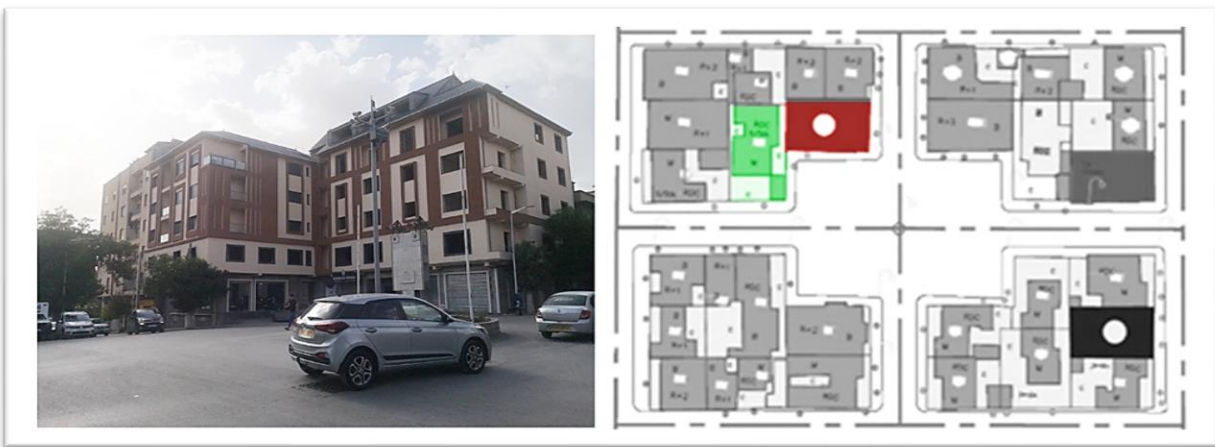


Figure 87: Amalgamation of two corner plots

Source: Author, 2024

9.4 Incremental renewal process

According to the Conzenian approach, alterations to existing forms can be made to a building by adding rooms, altering the roof, or altering the relationship between the street and the built-up area (Whitehand et al., 2014, p. 513). While this format, which seems a simple aggregate of private interests, may be acceptable from an economic perspective, the result may be criticized from a morphological point of view (Allies et al., 2010, p. 20; Scheer, 2008, p. 140).

These initiatives were primarily driven by residents' socioeconomic needs but later became focal points for real estate development and commercial ventures, motivated by

the pursuit of profitable land speculation. This shift introduced a new demographic profile into the neighborhood. Driven by financial incentives and utilizing third-party intermediaries, the once-magnificent villas without commercial premises have been replaced by "apartment buildings" that have erased the existing structures in their path.



Figure 88: Beginning of apartment-based renewal in Tlidge
Source: Madani 2012, Author 2024

This transformation has become pervasive, with nearly the entire Tlidge city being put up for sale, commanding prices that are among the highest in the city, if not the highest overall. Significantly, when a building with 10 or more residential units is sold, it generates considerable financial gains (excluding taxation) (Squires, 1989) for the entity acting as the "developer," who operates under cover of another individual's identity.

Faced with the dilemma of either selling their shares to investors to avoid the upkeep of decaying properties or purchasing parts of the same villa from other heirs to rebuild their own apartment building striving to maintain the initial architectural style and plot division and remain in the neighborhood, co-heirs are navigating anti-gentrification strategies (Brenner et al., 2012) amidst the surge of aggressive real estate development.

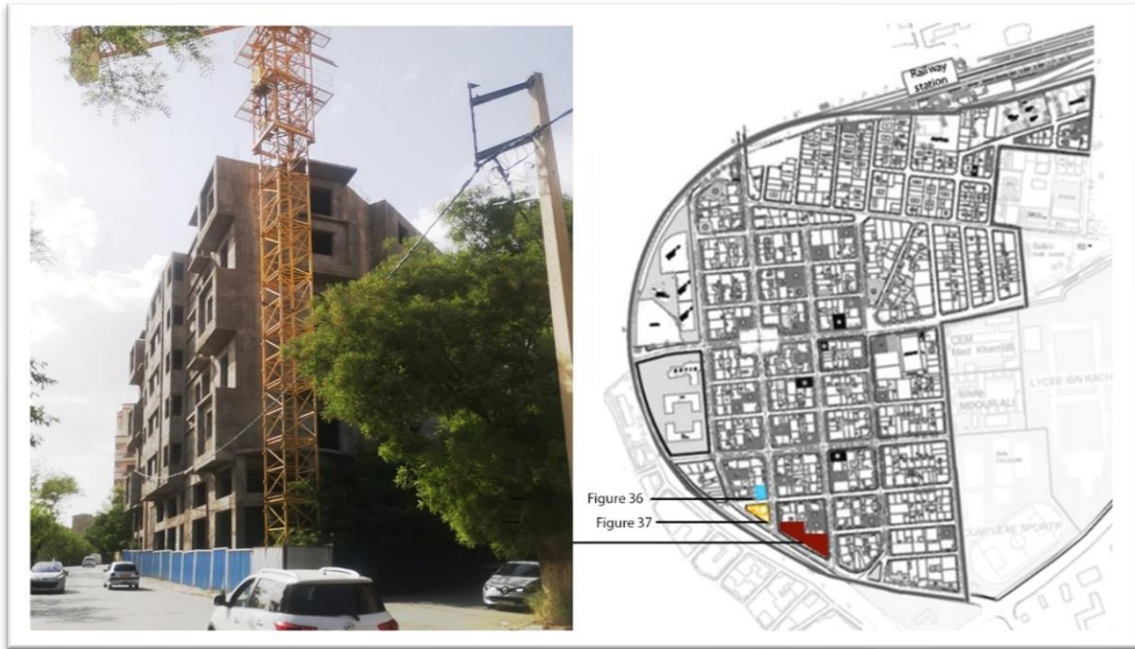


Figure 89 Plots amalgamation and apartment buildings.
 Source: Author, 2024

Speculators, seizing this opportunity, have reshaped the district to align with their economic objectives (Chukwunwike et al., 2017), significantly altering both the types of housing available and the community's social dynamics.



Figure 90: Proliferation of apartment buildings
 Source: Author, 2024

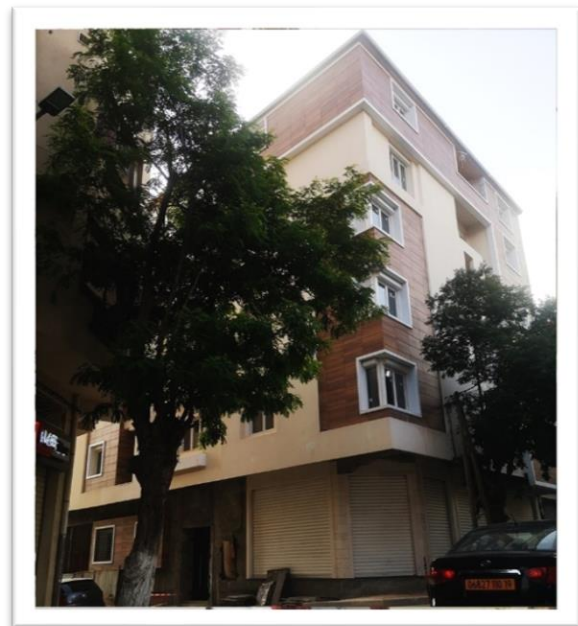


Figure 91: Apartment building maximizing FAR
 Source: Author, 2024

9.5 The Urban Land Use Plan (POS) No. 4

The Urban Land Use Plan (POS) No. 4, ratified by the governor of Sétif, has been violated by organized developers who appear to be unstoppable. This POS was meticulously formulated, considering the precarious soil conditions in the Bon Marché area, and stipulated construction standards limited to two floors while maintaining appropriate setbacks from adjacent buildings. Despite the site consisting of former contaminated deposits exceeding 4 meters in depth, with the presence of groundwater, this coveted land has been aggressively pursued by developers. Furthermore, seismic assessments have categorized the area as S3 due to its "loose" geological composition, situated in a zone prone to water accumulation.

9.6 Real estate development: tensions and sustainability issues

The development of the market economy has promoted high-density housing, which aligns with political priorities for equity, uniformity, and flexibility. The literature confirms that increasing density is a crucial ingredient for addressing critical challenges of our time (Dembski et al., 2020; Ooi & Le, 2013). However, the relentless pursuit of real estate development in the Tlidjene neighborhood, particularly the recent trend of constructing five-story buildings (R 5), has raised grave concerns regarding the sustainability of the area's architectural and urban fabric. While the replacement of obsolete built form is initially perceived at the property level, the implications of such scattered single decisions extend beyond the house scale, contributing to the overall renewal of the neighborhood (Ooi & Le, 2013). This phenomenon, often occurring at the expense of the neighborhood's historical character and social cohesion, has prompted native citizens to take legal action in an attempt to regulate real estate activities and uphold urban planning regulations. The deliberate violations of these regulations, specifically Articles 38 and 44 of Executive Decree No. 91-176 of May 28, 1991, which outline procedures for the issuance of various urbanization permits and certificates, have catalyzed a community response. Invoking Article No. 74 of Law 90-29 of December 1, 1990, concerning urban planning and development, which confers the right to initiate legal proceedings against any violation of planning and urbanization regulations, residents native to Bon Marché have established an association. This collective has filed a lawsuit aimed at regulating real estate activities within the neighborhood and addressing the infringement of the decree. The response to this legal action was immediate, with construction sites that had been dormant during

weekdays abruptly accelerating their pace over the weekends, escalating conflicts between residents and influential developers.

10. Conclusion

This study examines the urban landscape of RWN from a morphological process perspective to understand how individual plot changes impact the urban environment. Investigations of the relationships between socioeconomic changes and housing densification will strengthen the theoretical framework for a better understanding of the developmental cycle with morphological periods and conceptualization of the gradual transformation of the urban landscape from adjustment and repletion to climax. The case study development goes through three main phases: generation, degeneration, and regeneration. Generation begins with the cooperative society of railway workers in Sétif, followed by the transformation and densification of single-family houses. Degeneration is the interim phase, followed by regeneration, which sees the proliferation of multifamily houses and apartment buildings.

The study found that partnerships between landowners, contractors, and developers have accelerated the process of SNR, with building from scratch becoming the new *modus operandi*. Densification alters cityscapes, neighborhood character, and residents' redeployment, with quantity issues and profits becoming more important than hierarchical nesting of morphological elements.

The complex process of urban renewal is a social and technical partnership that requires a multifaceted approach involving politicians, designers, and the community. Factors such as lack of corporate mechanisms, communication issues, unequal public participation, misguided regulations, and an immature legal framework hinder the renewal process. Urban renewal aims to improve transparency, fairness, and community involvement. Intrinsically sociological, it is not just about physical and financial aspects but also about cultural, economic, and political aspects. To create a better society, the lived space must be reconstructed according to inherent values of housing in the neighborhood and changing socioeconomic contexts and residents' expectations, promoting sustainability and inclusion.

A posteriori, on the one hand, prioritization of (FARs) over building heights, types, setbacks, and street widths constrained the needed latitude and flexibility in the relationship between the plan and (re)development to confer more coherence to the renewal process in a responsive planning approach. On the other hand, underprioritizing

sustainability goals lead to speculation, gentrification, unbalanced affordability, and difficulty in accessing decent housing for low- and moderate-income households.

GIS supports the survey results, forming a hybrid methodology for the study, providing a solid and expandable structure for examining the issues connected to densification in the pericentral territories. The study revealed that raster and vector data integrated with the Grid technique provide details about the local environment, providing renewal teams with the information they need to undertake efficient operations in the study area.

Although this study only covers RWN, the findings apply to other surrounding neighborhoods and monocentric Algerian cities. It offers a nuanced vision to provide decision-makers with insights that can enable more affordable housing and guide socially sustainable strategies to help them reconsider applied housing densification and SNR processes. An additional scrutinized investigation would follow this study logically. First, a cross-case comparison between pericentral neighborhoods undergoing deep transformation to check whether processes have similar drivers and outcomes, whether using survey or Grid-based technique, Cellular Automata combining AHP and GIS approaches for evaluation or even for prediction. Second is a morphological investigation before and after new planning decisions of apartment building restrictions in subdivisions. A more holistic approach to understanding correlations and evidence-based attempts is needed to assess post-occupancy performance in a way that targets core obstacles to sustainability.

This ongoing struggle exposes the complex challenge of balancing development with heritage preservation and community integrity in the face of modern urban pressures. Indeed, the incremental redevelopment model, with its massive compositions of large floor plates, apartment buildings, commercial and residential developments, not only leads to deep fragmentation in the morphology of the neighborhood but to the whole city. The case of Tlidge exemplifies the broader tensions that arise when the pursuit of economic growth and real estate development collides with the preservation of historical architectural and urban fabric, as well as the maintenance of social cohesion within established communities. Through a narrative of successive relocation, clearance, development, and redevelopment, this transformation underlines the potential and resilience of the built fabric and the spatial reconfiguration at the expense of increased social segregation.

In summary, the findings of this study highlight the multifaceted nature of urban renewal, emphasizing the need for a balanced approach that integrates social, cultural, economic,

and political considerations. By fostering partnerships and prioritizing sustainable and inclusive development practices, it is possible to create urban environments that respect both heritage and modern needs, ensuring equitable and cohesive community growth.

General Conclusion

Conclusion:

The urban evolution of the city of Sétif holds a broader meaning of challenges and opportunities that apply for intermediate and major Algerian cities. Its transformation from a rising military quarter towards a vibrant regional center over across a hundred years demonstrates constructive qualities of resilience, flexibility, and adaptability in managing development. Despite lacking formal urban development tools locally during chaotic growth phases and governance uncertainties, deeply rooted potential propelled Sétif to progress steadily and skillfully embrace modernization while preserving historic appeal. In addition to its promotion to prefecture status, this balance has empowered Sétif to assert itself as a vital connectivity hub, taking on regional responsibilities to stimulate surrounding communities.

By drawing on inherent social and cultural bonds, evolving land administration strategies enabling strategic partnerships, cities like Sétif exemplify approaches rather intensifying social segregation than upholding inclusive communities anchored yet receptive to population and morphological changes. This redevelopment in Omar Deggou district reminds not only the dichotomy between planned developments and emergent informal settlements, but also the need to prioritize local management, architectural finesse, and spatial organization, while highlighting the impact of strong political will and appropriate decision-making mechanisms, that emphasize proactive and participatory planning approaches.

The main goal of this research was to investigate pathways towards urban renewal in the pericentral neighborhoods like the Railway Workers Neighborhood "Cheminots" and Tlidjene neighborhood "Bon marche". Yet, they exemplify on one hand the tensions between preservation or knock down rebuild "KDR" with segregation and gentrification sides effects. On the other hand, the resilience of urban fabric and the need to consider long-term sustainability. To achieve this objective, a combined methodology was employed involving a retrospective analysis of the city's evolution through document analysis and a historical approach. This was complemented by a sociological survey considering key factors influencing the neighborhood environment and incremental development.

The analysis explored the multifaceted concept of attractiveness which includes the visual quality and aesthetic appeal of the built environment, the presence of landmarks and iconic architectural patterns, as well as the accessibility of amenities, cultural attractions, and entertainment options. The study analyzed both quantitative and qualitative

indicators, including economic indicators, infrastructural quality, people's perception of quality of life, safety, and community cohesion.

Accessibility became a critical factor, with a specific emphasis on the layouts, conditions, and comfort when using streets and sidewalks, the accessibility and effectiveness of public transportation systems, and the level of integration of pedestrian and cyclist-friendly infrastructure into the urban environment. An interconnected issue was affordability and the capacity of different income groups to access property, including the housing cost, the overall cost of living, access to services, and economic opportunities to curb unemployment and provide jobs within urban areas.

The study not only examined the complex relationship between urban density which includes population density, and its impact on resource usage and urban services, as well as the optimal density levels towards effective land use and sustainable renewal, but also explored residential density, which refers to the distribution and concentration of residential areas, as well as the zoning regulations and policies governing pericentral neighborhoods.

An analysis was conducted on the spatial dynamics of the city, through the lens of distance and vis-à-vis, considering the spatial relationships of proximity and the visual connections between preserved and rebuilt housing entities, characterizing housing densification in study cases neighborhoods. The importance of the urban void or open spaces, making available recreational opportunities such as public parks with green spaces and playgrounds, contributing to mental and physical health while improving environmental quality and well-being was acknowledged as crucial to dense urban neighborhoods. Yet decreasing vegetation cover calls for integration of urban greenery, such as tree lined streets with proved landscaping and urban heat island mitigation benefits. Closely connected to this was the consideration of the increased quantities of waste due to increased housing and population density concurrently with issues in efficiency and effectiveness of cleanliness and waste management.

The sociological survey emphasized the significance of social conditions and networking, such as active engagement of the community, social cohesion, the presence of support networks and community meetings and building initiatives, and the extent to which this can be inclusive and accessible for diverse groups of population.

By supporting methodology with GIS land use maps to examine multifaceted factors of housing densification, demolition, reconstruction, and speculative renewal processes

within these neighborhoods over two decades, the study aims to guide neighborhood's renewal evolution, coordinating and informing future redevelopment.

The retrospective analysis unveiled the historical patterns, socio-economic dynamics, housing crisis roots, land scarcity background, and urban transformation that have shaped Sétif's pericentral neighborhoods chronologically. The partnership between landowners, contractors, and developers has accelerated the process of urban renewal, though often overlooking social cohesion and affordability.

These areas have witnessed significant urbanization, transformative structural projects, and changing pace of sprawling growth, with urban reconquest efforts full of insights to restore centrality and enhance urban landscape either navigating between local management and urban planning milestones or limitations and major challenges.

The Grid technique using GIS for land use mapping comes to shed light on the spatial manifestations of densification, demolition, reconstruction, and speculative renewal activities within these neighborhoods. Specific challenges identified include infrastructure deficiencies, plots amalgamation and new parceling system, horizontal extension of FAR and increased height, saturation at the expense of gardens and overall coherence, and the need for sustainable development initiatives.

This research contributes to the field of urban planning and architecture by providing a theoretical framework for understanding the peculiarities of old urban fabrics in a general context that advocates compactness and density before unravelling the intricate relationship between economic and profit based logics of redevelopment, historical and cultural value that illustrate the complexities of urban renewal marked by speculation and alteration of neighborhood character shifting typologies and demographics. The combined methodology of historical analysis, spatial data, and mapping techniques offers a holistic approach to examining the morphological processes and socio-economic factors influencing urban transformation. Furthermore, the study proposes conceptual models and analytical approaches for investigating the relationships between socio-economic changes, housing densification, and the incremental transformation of urban landscapes through distinct phase such as generation, degeneration, and regeneration.

Based on the findings, several policy recommendations can be proposed for urban planners, policymakers and local authorities to address the challenges and opportunities identified in Sétif's pericentral neighborhoods. These emphasize the importance of transparency, fairness, and the adoption of participatory planning processes that actively

involve local communities and stakeholders. They also suggest balancing cultural heritage preservation and community integrity maintenance while prioritizing sustainability goals and addressing the core obstacles to affordable housing are crucial for achieving economically viable and socially sustainable urban development.

Urban renewal of peri-urban neighborhoods is a major challenge for many Algerian cities. These neighborhoods, often inherited from the colonial and/or post-colonial period of rapid development, are now experiencing problems of aging buildings, socio-economic problems and degradation of the urban environment. A multi-dimensional, iterative approach would help to initiate a genuine urban, social and environmental transformation of these concerned peri-urban neighborhoods.

In fact, the design of a renewal process for these neighborhoods will enable cities to revitalize themselves. This transformation process can be broken down into several aspects that need to be explored. An in-depth urban analysis through a detailed and comprehensive diagnosis of the neighborhood is necessary to identify all the issues at stake. This involves analyzing the built environment, facilities and public spaces, identifying socio-economic, environmental and mobility issues, and gathering the aspirations of the various stakeholders. Drawing up an urban renewal strategy based on a global vision and long-term objectives, to come up with an action plan prioritizing sectoral interventions. Various types of rehabilitation, major renovation or demolition/reconstruction operations can be envisaged. The financial aspect Financing and partnerships is essential and requires the mobilization of public and private funds in partnership. The regulatory aspect, in particular the POS should take into account urban renewal objectives in order to control land use. The integration of sustainable development criteria will also be essential.

A consultation process must be implemented with all stakeholders (residents, shopkeepers, local actors, etc.). Information, consultation and local management systems are essential.

In conclusion, the broader relevance of this research extends to the Algerian urban landscape and the wider regional context, offering insights applicable to other cities facing similar challenges.

The findings and recommendations from this research are relevant not only to Sétif but also to the broader Algerian urban landscape and the wider regional context. Cities facing similar challenges can draw insights from this study. Future research avenues could include longitudinal studies, comparative analyses with other neighborhoods, a deeper

analysis to building scale, and the integration of emerging technologies and data-driven approaches for more informed decision-making in urban renewal processes.

References :

1. References :
2. A. Borie, P. Micheloni, P. P. (1976). Formes urbaines et sites de méandres. Ville recherche diffusion.
3. Alexander, C. (1987). A New theory of urban design. Oxford University Press.
4. Allies, B., Hoeks, H., Klaassen, L., & Wouter Mikmak Foundation. (2010). Cultivating the city: London before and after 2012. 80.
<https://www.nasisbooks.com/shop/english-books/architecture/cultivating-the-city-london-before-and-after-2012/>
5. Amado, M. P., Ramalhete, I., Amado, A. R., & Freitas, J. C. (2016). Regeneration of informal areas: An integrated approach. *Cities*, 58, 59–69.
<https://doi.org/10.1016/J.CITIES.2016.05.015>
6. Amer, M., Mustafa, A., Teller, J., Attia, S., & Reiter, S. (2017). A methodology to determine the potential of urban densification through roof stacking. *Sustainable Cities and Society*, 35, 677–691. <https://doi.org/10.1016/J.SCS.2017.09.021>
7. Angel, S. (2012). Planet of Cities. Lincoln Institute of Land Policy.
8. Angel, S., Lamson-Hall, P., & Blanco, Z. G. (2021). Anatomy of density: measurable factors that constitute urban density. *Buildings and Cities*, 2(1), 264–282.
<https://doi.org/10.5334/BC.91>
9. Angel, S., Parent, J., Civco, D. L., Blei, A., & Potere, D. (2011). The dimensions of global urban expansion: Estimates and projections for all countries, 2000-2050. *Progress in Planning*, 75(2), 53–107. <https://doi.org/10.1016/j.progress.2011.04.001>
10. Armstrong, G., Wilkinson, S., & Cilliers, E. J. (2023). A framework for sustainable adaptive reuse: understanding vacancy and underuse in existing urban buildings. *Frontiers in Sustainable Cities*, 5, 985656.
<https://doi.org/10.3389/FRSC.2023.985656/BIBTEX>
11. Arnold, J. W., Schwab, W. A., & Schwirian, K. P. (1977). Spatial and Temporal Aspects of the Density-Distance Relationship. *Sociological Focus*, 10(2), 117–132.
<https://doi.org/10.1080/00380237.1977.10570282>
12. Bai, Y., Wu, S., & Zhang, Y. (2023). Exploring the Key Factors Influencing Sustainable Urban Renewal from the Perspective of Multiple Stakeholders. *Sustainability* 2023, Vol. 15, Page 10596, 15(13), 10596. <https://doi.org/10.3390/SU151310596>
13. Ballout, A., Lacheheb, D. E. Z., & Bouchahm, Y. (2015). Improvement of Thermal Comfort Conditions in an Urban Space (Case Study: The Square of Independence,

- Sétif, Algeria). *European Journal of Sustainable Development*, 4(2).
<https://doi.org/10.14207/EJSD.2015.V4N2P407>
14. Batra, L. (2011). A review of urbanization and urban policy in post-independence India. Jawaharlal Nehru University.
 15. Beall, J., Guha-Khasnobis, B., & Kanbur, R. (2010). *Urbanization and Development: Multidisciplinary Perspectives*. In *Urbanization and Development: Multidisciplinary Perspectives*. Oxford University Press.
<https://doi.org/10.1093/ACPROF:OSO/9780199590148.001.0001>
 16. Beatley, T. (1999). *Green urbanisms*. Island Press.
 17. Beaucire, F. (2006). *Urban densification: is compact city feasible?*
 18. Belhedi, A. (2004). *Sociologie de l'espace: Concepts, démarches et méthodes*. L'Harmattan.
 19. Bellal, T. (2009). HOUSING SUPPLY IN ALGERIA: AFFORDABILITY MATTERS RATHER THAN AVAILABILITY. In *Theoretical and Empirical Researches in Urban Management Number* (Vol. 3, Issue 12).
 20. Belmahdi, H. S., & Djemili, A. (2022). Urban landscape structure anatomy: Structure patterns and typology identification in the space-time of Setif City, Algeria. *Frontiers of Architectural Research*, 11(3), 421–439.
<https://doi.org/10.1016/J.FOAR.2021.12.004>
 21. Benigni, M. (2014). À LA RECHERCHE DE LA «BONNE DENSITÉ»; POUR UNE CLARIFICATION DES DÉBATS; BETWEEN «COMPACT CITY» AND «SPRAWL»: IN SEARCH OF THE «RIGHT» TYPE OF DENSITY.
 22. Bensedjai, R., & Bencherif, M. (2022). Local Urban Management for Improving the Quality of Life in Algerian Collective Housing Estates. *Journal of Urban Planning and Development*, 148(2), 1–14. [https://doi.org/10.1061/\(asce\)up.1943-5444.0000820](https://doi.org/10.1061/(asce)up.1943-5444.0000820)
 23. Berghauer Pont, M. (2020). *Spacematrix: space, density and urban form / Meta Berghauer Pont; Per Haupt*.
https://discovery.upc.edu/iii/encore/record/C__Rb1440045?lang=cat
 24. Berghauer Pont, M., Barthel, S., Colding, J., Gren, Å., Legeby, A., & Marcus, L. (2022). Editorial: Social-ecological urbanism: Developing discourse, institutions and urban form for the design of resilient social-ecological systems in cities. *Frontiers in Built Environment*, 8. <https://doi.org/10.3389/FBUIL.2022.982681>
 25. Berghauer Pont, M., Stavroulaki, G., Gil, J., Marcus, L., Serra, M., Hausleitner, B., Olsson, J., Abshirini, E., & Dhanani, A. (2017). Quantitative comparison of cities:

- Distribution of street and building types based on density and centrality measures. Proceedings - 11th International Space Syntax Symposium, SSS 2017, 44.1-44.18.
26. Bibri, S. E., Krogstie, J., & Kärrholm, M. (2020). Compact city planning and development: Emerging practices and strategies for achieving the goals of sustainability. *Developments in the Built Environment*, 4. <https://doi.org/10.1016/j.dibe.2020.100021>
 27. Bonneville, M. (2004). Les ambiguïtés du renouvellement urbain en France: Effets d'annonce, continuité ou rupture? *Les Annales de La Recherche Urbaine*, 97(1), 7–16. <https://doi.org/10.3406/aru.2004.2571>
 28. Borie, A., Micheloni, P., & Pinon, P. (1977). Formes urbaines et sites de méandres. 447. <https://hal.science/hal-03112313>
 29. Bouchemal, S. (2014). Quarante ans après: La Cité des 1100 Logements à Alger (Algérie) entre utopie et dystopie urbaine. *EchoGéo*, 26. <https://doi.org/10.4000/echogeo.13377>
 30. Boudjabi, N. H. (2022). UN VISAGE POUR LA VILLE ALGERIENNE DE DEMAIN « MORPHOGENESE , FORMES CACHEES ET FORMES A PROJETER, CAS DE CONSTANTINE ».
 31. Boudjabi, N. H., Bouzahzah, F., & Bouchareb, A. (2018). Urban strategies for a renewal of algerian cities: Constantine of tomorrow. *Civil Engineering and Architecture*, 6(1), 18–24. <https://doi.org/10.13189/cea.2018.060102>
 32. Bounoua, L., Bachir, N., Souidi, H., Bahi, H., Lagmiri, S., Khebiza, M. Y., Nigro, J., & Thome, K. (2023). Sustainable Development in Algeria's Urban Areas: Population Growth and Land Consumption. *Urban Science*, 7(1). <https://doi.org/10.3390/urbansci7010029>
 33. Brand, S. (1994). *How buildings learn: what happens after they're built*. Viking.
 34. Bredenoord, J., & van Lindert, P. (2010). Pro-poor housing policies: Rethinking the potential of assisted self-help housing. *Habitat International*, 34(3), 278–287. <https://doi.org/10.1016/j.habitatint.2009.12.001>
 35. Brem, S. (2021). *Preserving Urban Landscapes: Mitigating Tension Between Continuity and Change*. Routledge.
 36. Brenner, N., Marcuse, P., & Mayer, M. (2012). *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City*. In *Cities for People, Not for Profit: Critical Urban Theory and the Right to the City*. Taylor and Francis. <https://doi.org/10.4324/9780203802182>

37. Broeck, P. Van den, Healey, P., Harris, N., & Silva, E. A. (2015). *The Routledge Handbook of Planning Research Methods*. In *Theory and methods in political science*. Taylor & Francis.
38. Bruegmann, R. (2006). *Sprawl: A Compact History* Chicago Studies in American Politics Series (2006 University of Chicago Press (Ed.)).
39. Bullock, N. (2002). *Building the post-war world: modern architecture and reconstruction in Britain*. Routledge.
40. Burton, E., Jenks, M., & Williams, K. (2003). *The Compact City: A Sustainable Urban Form?* (1st ed.) (E. Burton, M. Jenks, & K. Williams (Eds.)). Taylor & Francis. <https://www.taylorfrancis.com/books/9781135816995>
41. CAHF. (2021). *HOUSING FINANCE IN AFRICA: A review of Africa's housing finance markets 2021 YEARBOOK*.
42. Callen, D. (2011). *La " fabrique péri-urbaine ", système d'acteurs et production des ensembles pavillonnaires dans la Grande Couronne francilienne*. [Université Panthéon-Sorbonne - Paris I]. <https://theses.hal.science/tel-00651441>
43. Cannigia, G., & Malfroy, S. (1986). *Leçons d'analyse typologique*. Pierre Mardaga.
44. Castex, J., Depaule, J. C., & Panerai, P. (1980). *Formes urbaines: de l'îlot à la barre*. Dunod.
45. Castex, J., Depaule, J. C., & Panerai, P. (1997). *Les formes de la ville: architectures et urbanisme*. Éditions Parenthèses.
46. Cavallier, G. (1999). *Le renouvellement urbain: évolution ou révolution?* *Urbanisme*, 307, 49–52.
47. Cavicchia, R. (2023). *Urban densification and exclusionary pressure: emerging patterns of gentrification in Oslo*. *Urban Geography*, 44(7), 1474–1496. <https://doi.org/10.1080/02723638.2022.2100174>
48. Çelik, Z. (1997). *Urban Forms and Colonial Confrontations Algiers Under French Rule*. In *H-France, H-net reviews in the Humanities and Social sciences* (Issue February, 1998). University of California Press.
49. Chaline, C. (1990). *Les villes du monde arabe*. A. Colin.
50. Charmes, E. (2015). *La ville émietlée: essai sur la clubbisation de la vie urbaine*. Humensis.
51. Choay, F. (1965). *Urbanisme, utopie et réalité*. Seuil.
52. Choay, F. (1992). *L'allégorie du patrimoine*. Éditions du Seuil.

53. Chorfi, K. (2019). Le fait urbain en Algérie , de l'urbanisme. Université FERHAT Abbas de Sétif.
54. Christiansen, H. (2014). Paris Reborn: Napoléon III, Baron Haussmann, and the Quest to Build a Modern City by Stéphane Kirkland. In *The French Review* (Vol. 87, Issue 3). St. Martin's Publishing Group. <https://doi.org/10.1353/tfr.2014.0411>
55. Chukwunwike, C., Fidelis, E. &, & Emoh, I. (2017). THE ISSUES AND CHALLENGES OF URBAN RENEWAL IN A DEVELOPING ECONOMY. In *International Journal of Development and Economic Sustainability* (Vol. 5, Issue 1). Online. www.eajournals.org
56. Churchman, A. (1999). Disentangling the concept of density. *Journal of Planning Literature*, 13(4), 389–411. <https://doi.org/10.1177/08854129922092478>
57. Clark, J., & Wise, N. (2018). *Urban renewal, community and participation: theory, policy and practice*. Springer International Publishing. <https://doi.org/10.1007/978-3-319-72311-2>
58. Clarke, T. (1998). The stakeholder corporation: A business philosophy for the information age. *Long Range Planning*, 31(2), 182–194. [https://doi.org/10.1016/S0024-6301\(98\)00002-8](https://doi.org/10.1016/S0024-6301(98)00002-8)
59. Constitution Algérienne. (1989). <https://www-refworld-org.proxy.bnl.lu/docid/48ef1cb62>
60. Conzen, M. R. G. (1960). Alnwick, Northumberland: A Study in Town-Plan Analysis. *Transactions and Papers (Institute of British Geographers)*, 27, iii. <https://doi.org/10.2307/621094>
61. Corbusier, L. (1957). *La charte d'Athènes*. Éditions de Minuit.
62. Côte, M. (1988). *L'Algérie ou l'Espace retourné*. Flammarion.
63. Côte, M. (2011). L'Algérie, mondialisation et nouvelles territorialités. [Http://Journals.Openedition.Org/Mediterranee](http://Journals.Openedition.Org/Mediterranee), 116(116), 77–84. <https://doi.org/10.4000/MEDITERRANEE.5406>
64. Couch, C. (1990). *Urban Renewal Theory and Practice*. In MACMILLAN EDUCATION LTD Houndmills, Basingstoke, Hampshire RG21 2XS (Vol. 7, Issue 2).
65. Couch, C., Charles, F., & Susan, P. (2003). *Urban Regeneration in Europe*. In *Urban Regeneration in Europe*. Wiley. <https://doi.org/10.1002/9780470690604.FMATTER>
66. Crozier, M., & Friedberg, E. (1992). *L'acteur et le système*. Éditions du seuil.
67. Damluji, S. S. (2021). *The architecture of Yemen and its reconstruction*. Laurence

King Publishing.

68. Danan, Y. M., & Jacquignon, L. (1978). *Droit de l'urbanisme*. Eyrolles.
69. Davies, J. S. (2002). Urban Regime Theory: A Normative-Empirical Critique. *Journal of Urban Affairs*, 24(1), 1–17. <https://doi.org/10.1111/1467-9906.00111>
70. Davis, M. (2004). Planet of Slums. In *UnderCurrents: Journal of Critical Environmental Studies* (Vol. 16, p. 37).
71. Day, K. (2000). The ethic of sustainability: Limits and possibilities. 242–254.
72. Debrunner, G., & Kaufmann, D. (2023). Land valuation in densifying cities: The negotiation process between institutional landowners and municipal planning authorities. *Land Use Policy*, 132. <https://doi.org/10.1016/j.landusepol.2023.106813>
73. Decret 94-07 relatif aux conditions de la production architecturale et à l'exercice de la profession d'architecte (p. 24). (1994).
74. Dembski, S., Hartmann, T., Hengstermann, A., & Dunning, R. (2020). Introduction enhancing understanding of strategies of land policy for urban densification. *Town Planning Review*, 91(3), 209–216. <https://doi.org/10.3828/tpr.2020.12>
75. Dempsey, N., & Jenks, M. (2010). The future of the compact city. In *Built Environment* (Vol. 36, Issue 1). <https://doi.org/10.2148/benv.36.1.116>
76. Dessouky, N., Wheeler, S., & Salama, A. M. (2023). The Five Controversies of Market-Driven Sustainable Neighborhoods: An Alternative Approach to Post-Occupancy Evaluation. *Social Sciences* 2023, Vol. 12, Page 367, 12(7), 367. <https://doi.org/10.3390/SOCSCI12070367>
77. Diafat, A., & Madani, S. (2016). Urban Changes in the City of Setif, Algeria: Colonial and Postcolonial Periods. *Urban Planning in North Africa*, 93–102. <https://doi.org/10.4324/9781315548753-9/URBAN-CHANGES-CITY-SETIF-ALGERIA-COLONIAL-POSTCOLONIAL-PERIODS-ABDERRAHMANE-DIAFAT-SAID-MADANI>
78. Duany, A., & Plater-Zyberk, E. (1994). The Neighborhood, the District, and the Corridor. In *The New Urbanism: Toward an Architecture of Community*.
79. Dutercq, Y., & Van Zanten, A. (2001). *Le Paris des politiques: la fabrication des politiques d'éducation dans une ville en mutation*. l'Harmattan.
80. Eddine Zakaria Lacheheb, D., & Madani, S. (2017). Housing Densification: Transformation or urban Renewal (Case Study for subdivision in Setif, Algeria) At the crossroads of densification and sustainable urban renewal: Regulation and urban morphology View project. <https://www.researchgate.net/publication/323456605>

81. Fainstein, S. S. (2009). Planning and the Just City. In P. Marcuse (Ed.), *Searching for the Just City* (pp. 39–59). Routledge. <https://doi.org/10.4324/9780203878835-10>
82. Fouchier, V. (1997). *Les densités urbaines et le développement durable, le cas de l'Île de France et des villes nouvelles*. Editions du SGVN. <http://cat.inist.fr/?aModele=afficheN&cpsidt=110212>
83. Freeman, L., Cassola, A., & Cai, T. (2016). Displacement and gentrification in England and Wales: A quasi-experimental approach. *Urban Studies*, 53(13), 2797–2814. <https://doi.org/10.1177/0042098015598120>
84. Frey, H. (2003). *Designing the city: Towards a more sustainable urban form*. In *Designing the City: Towards a More Sustainable Urban Form*. Taylor & Francis. <https://doi.org/10.4324/9780203362433>
85. Gales, P. A. (1995). Markets, managers and governance: Towards a new synthesis? *Journal of Management Studies*, 32(2), 201–231.
86. Gauthiez, B. (2003). *Espace urbain: Vocabulaire et morphologie*. Monum, éditions du patrimoine.
87. Giddens, A. (1984). *The constitution of society: outline of the theory of structuration*. University of California Press.
88. Giddings, B., & Rogerson, R. (2021). Compacting the city centre: densification in two Newcastles. *Buildings and Cities*, 2(1), 185–202. <https://doi.org/10.5334/bc.74>
89. Giovannoni, G. (1998). *L'urbanisme face aux villes anciennes*. Éditions du Seuil.
90. Glaeser, E. L. (Edward L. (2012). *Triumph of the city: how our greatest invention makes us richer, smarter, greener, healthier, and happier*. Penguin Publishing Group.
91. Glendinning, M. (2013). *The conservation movement: a history of architectural preservation: antiquity to modernity*. Routledge.
92. Godard, F. (2001). *La réhabilitation du vieux bâti: Enjeu de l'aménagement urbain*. Éditions de l'Aube.
93. Golland, A. (Ed. . (2017). *Housing development: theory, process and practice*. Routledge.
94. Goodchild, B. (1994). *Housing design, density and consumer preference*. Avebury.
95. Grabar, H. (2014). *Alger à l'époque ottomane*. La Découverte.
96. Guedoudj, W., Ghenouchi, A., & Toussaint, J. Y. (2020). Urban attractiveness in public squares: The mutual influence of the urban environment and the social activities in Batna. *Urbe*, 12, 1–22. <https://doi.org/10.1590/2175->

3369.012.e20190162

97. Guerroudj, T. (2011). Pourquoi faire de l'urbanisme ? . Confluence Eds.
98. Hadjri, K. (2004). The Spatial Development and Urban Transformation of Colonial and Post-Colonial Algiers. In *Planning Middle Eastern Cities: An Urban Kaleidoscope in a Globalizing World* (Issue July 2004, pp. 1–210).
<https://doi.org/10.4324/9780203609002>
99. Hall, P. (1998). *Cities in civilization*. Pantheon Books.
100. Haouche, A. (2023). L'IMPACT DE LA DEVITALISATION COMMERCIALE SUR LA CENTRALITE URBAINE, CAS DU CENTRE VILLE DE SETIF.
101. Harvey, D. (1973). *Social justice and the city*. 356.
102. Harvey, D. (1990). *The condition of postmodernity: an enquiry into the origins of cultural change*. Blackwell.
103. Healey, P. (1997). Collaborative Planning. In *Collaborative Planning*. Macmillan Education UK. <https://doi.org/10.1007/978-1-349-25538-2>
104. Healey, P. (2006). URBAN COMPLEXITY AND SPATIAL STRATEGIES: TOWARDS A RELATIONAL PLANNING FOR OUR TIMES. In *Urban Complexity and Spatial Strategies: Towards a Relational Planning for Our Times* (pp. 299–345). Taylor and Francis. <https://doi.org/10.4324/9780203099414>
105. Heraou, A. (2012). Evolution des politiques de l'habitat en algerie le L. S.P comme solution a la crise chronique du logement cas d'etude la ville de chelghoum laid.
106. Herdt, T. D. (2023). Unpacking Density of Urban Built Habitats – Densification Practices and Implications. *International Journal of Architectural Research: ArchNet-IJAR*, 13(1), 26–51. <https://doi.org/10.1108/ARCH-03-2022-0136>
107. Hillier, B., & Hanson, J. (1984). *The social logic of space*. Cambridge University Press.
108. Holden, E. (2004). *Ecological footprints and sustainable urban form—how do the density and form of urban areas affect their ecological impact?* University of Oslo.
109. Holec, N., & Geneviève Brunet-Jolivard. (1999). GOUVERNANCE dossier documentaire. DIRECTION GENERALE DE L'URBANISME, DE L'HABITAT ET DE LA CONSTRUCTION.
110. Home, R. (2020). *Land issues for urban governance in Sub-Saharan Africa*. Springer International Publishing.
111. Hyra, D. S. (2008). The new urban renewal: the economic transformation of Harlem and Bronzeville. 214.

112. Jacobs, J. (1961). *The death and life of great American cities*. Vintage Books.
113. Jamil M. Abun-Nasr. (1987). *A History of the Maghrib in the Islamic Period*. In *A History of the Maghrib in the Islamic Period*. Cambridge University Press.
<https://doi.org/10.1017/CBO9780511608100>
114. Jencks, C. (1977). *The language of post-modern architecture*. Rizzoli.
115. Jessop, B. (2004). Multi-level governance and multi-level metagovernance BT - Multi-level governance (pp. 49–74).
116. John L. Renne and Jan S. Wells. (2005). *Transit-Oriented Development: Developing a Strategy to Measure Success*. In *Transit-Oriented Development: Developing a Strategy to Measure Success* (Vol. 294). Transportation Research Board.
<https://doi.org/10.17226/23319>
117. Jouret, D. (1981). *Le renouvellement urbain par éclatement/recomposition?*
118. Judge, D. (1995). Pluralism. In *Theories of Urban Politics* (pp. 13–34).
<https://pureportal.strath.ac.uk/en/publications/pluralism>
119. Kebir, B. (2016). *Annaba, Entre Morphologies Et Politiques Urbaines. Vers Un Renouvellement?* Annaba.
120. Kebir, B., & Zeghiche, A. (2022). *Le renouvellement urbain à Annaba, entre recherche d'équité territoriale et tendance à la gentrification*. 2022.
<https://doi.org/10.4000/CYBERGEO.39237>
121. Kirkland, S. (2013). *Paris reborn: Napoléon III, Baron Haussmann, and the quest to build a modern city*. St. Martin's Publishing Group.
https://books.google.com/books/about/Paris_Reborn.html?id=o2srT7oPQwwC
122. Kleinschmager, R. (1998). *La rencontre des acteurs locaux avec la nouvelle mode de la "gouvernance."* *Bulletin de l'APAD*, 15, 15–33.
123. Kostof, S., Castillo, G., & Tobias, R. (1992). *The city assembled: the elements of urban form through history*. Thames and Hudson.
124. Lai, Y., Chen, K., Zhang, J., & Liu, F. (2020). Transformation of industrial land in urban renewal in Shenzhen, China. *Land*, 9(10), 1–21. <https://doi.org/10.3390/land9100371>
125. Langton, S. (1983). Public-private partnerships: Hope or hoax? In *National Civic Review* (Vol. 72, Issue 5, pp. 256–261). John Wiley & Sons, Ltd.
<https://doi.org/10.1002/NCR.4100720504>
126. Le Garrec, S. (2006). *Le renouvellement urbain: la genèse d'une notion fourre-tout*. PUCA.

127. Leary, M. E., & McCarthy, J. (2013). *The Routledge companion to urban regeneration*.
https://books.google.com/books/about/The_Routledge_Companion_to_Urban_Regener.html?id=yEhGmgEACAAJ
128. Lees, L. (2008). Gentrification and Social Mixing: Towards an Inclusive Urban Renaissance? *Http://Dx.Doi.Org/10.1177/0042098008097099*, 45(12), 2449–2470.
<https://doi.org/10.1177/0042098008097099>
129. Lefebvre, H. (1967). Le droit à la ville. *L'Homme et La Société*, 6(1), 29–35.
<https://doi.org/10.3406/HOMSO.1967.1063>
130. LeGates, R. T., & Stout, F. (2011). *The city reader*. Taylor & Francis.
131. Lehmann, S. (2016). Sustainable urbanism: towards a framework for quality and optimal density? *Future Cities and Environment*, 2(0), 8.
<https://doi.org/10.1186/s40984-016-0021-3>
132. Levi-strauss, C. (1963). *Structural Anthropology*. In *Analytical Biochemistry*.
133. Logan, J. R., & Molotch, H. (1987). The City as Growth Machine. In *Urban Fortunes: The Political Economy of Place* (pp. 51–94). University of California Press.
134. Loi-90-29 Relative a l'aménagement et a l'urbanisme. (1990).
135. Loi n° 90-25 relative a l'orientation foncière. (1990).
<http://www.joradp.dz/HFR/Index.htm>
136. Loi n°86-07 relative a l'amélioration du cadre de vie urbain. (1986).
<http://www.joradp.dz/HFR/Index.htm>
137. Lynch, K. (1960). *The Image of the City*. Technology Press & Harvard University Press.
138. Mabogunje, A. L. (1990). Urban Planning and the Post-Colonial State in Africa: A Research Overview1. In *African Studies Review* (Vol. 33, Issue 2). Cambridge University Press. <https://doi.org/10.2307/524471>
139. Madani, S. (2010). Papers URBAN RENOVATION AND SUSTAINABILITY: Case of the "Citadel" Park in Setif-Algeria.
140. Madanipour, A. (2003). Public and private spaces of the city. In *Public and Private Spaces of the City*. Routledge. <https://doi.org/10.4324/9780203402856>
141. Madanipour, A. (2018). Temporary use of space: Urban processes between flexibility, opportunity and precarity. *Urban Studies*, 55(5), 1093–1110.
<https://doi.org/10.1177/0042098017705546>

142. Malverti, X. (1988). Les villes coloniales fondées au Maghreb au XIXe siècle. *Revue Du Monde Musulman et de La Méditerranée*, 52(1), 150–160.
143. Mangin, D. (2004). *La ville franchisée : formes et structures de la ville contemporaine*. Éd. de la Villette.
144. Marcus, L., & Saka, E. (2012). *Designing the Resilient City: Concepts and Cases*. Graduate School of Design, Harvard University.
145. Maréchal, C. (2015). État des lieux, mécanismes et enjeux de la densification urbaine en France. *L'approche novatrice de la densification verticale*.
146. Matillana Díaz, B. (2023). Densification and Housing: Challenges in Bogotá. *International Journal of Housing Policy*, 1–25.
147. McDonald, R. I., Kareiva, P., & Forman, R. T. T. (2008). The implications of current and future urbanization for global protected areas and biodiversity conservation. *Biological Conservation*, 141(6), 1695–1703. <https://doi.org/10.1016/J.BIOCON.2008.04.025>
148. Mekhachene, N. (2016). LA MAITRISE D'OUVRAGE URBAINE, VERS UN DISPOSITIF DE GOUVERNANCE DES PROJETS URBAINS EN ALGERIE CAS DU PLATEAU ELBEZ A SETIF.
149. Merlin, P. (1998). *Les Banlieues des villes françaises*. La documentation française.
150. Merlin, P., & Choay, F. (1988). *Dictionnaire de l'urbanisme et de l'aménagement* (2e éd). Presses universitaires de France.
151. Messahel, N. (2014). *l'économie du logement en Algérie*.
152. Mirzakhani, A., Turró, M., & Jalilisadrabad, S. (2021). Key stakeholders and operation processes in the regeneration of historical urban fabrics in Iran. *Cities*, 118, 103362. <https://doi.org/10.1016/J.CITIES.2021.103362>
153. Mosbah, A. (2008). *Villes du Maghreb et du Moyen-Orient: Représentations et Aménagement*. L'Harmattan.
154. Mossberger, K., & Stoker, G. (2001). The evolution of urban regime theory: The challenge of conceptualization. *Urban Affairs Review*, 36(6), 810–835. <https://doi.org/10.1177/10780870122185109>
155. Mouaziz-Bouchentouf, N. (2022). De la villa à l'appartement. Analyse des parcours résidentiels dans les quartiers périphériques d'Oran (Algérie). *Territoire En Mouvement*, 52. <https://doi.org/10.4000/TEM.9038>
156. Moudon, A. V. (1997). *Urban Morphology as an Emerging Interdisciplinary Field*.

Urban Morphology, 1, 3–10.

157. Moulinié, C., & Naudin-Adam, M. (2005). Comprendre la densité. Institut d'aménagement et d'urbanisme de la région d'Ile-de-France.
158. Muller, P. (1997). Les politiques publiques comme construction d'un rapport au monde BT - La construction du sens dans les politiques publiques: Débats autour de la notion de référentiel (pp. 153–179). L'Harmattan.
159. Mumford, E. P. (2002). The CIAM discourse on urbanism, 1928-1960. MIT Press.
160. Mumford, L. (1961). The city in history: its origins, its transformations, and its prospects. Harcourt, Brace & World, Inc.
161. Mustafa, A., Van Rompaey, A., Cools, M., Saadi, I., & Teller, J. (2018). Addressing the determinants of built-up expansion and densification processes at the regional scale. *Urban Studies*, 55(15), 3279–3298.
<https://doi.org/10.1177/0042098017749176>
162. Nebbad, T., Diafat, A., & Madani, S. (2023). Sustainable Renewal of an Empty Block to Public Urban Space: Gentrification of the Railway Workers' Housing Estate and its Garden's Urban Interface, Sétif, Algeria. *Green Building & Construction Economics*, 4(1), 199–213. <https://doi.org/10.37256/gbce.4120232241>
163. Neuman, M. (2005). The compact city fallacy. *Journal of Planning Education and Research*, 25(1), 11–26. <https://doi.org/10.1177/0739456X04270466>
164. Newman, P., Beatley, T., & Boyer, H. M. (2017). Resilient Cities: Overcoming Fossil Fuel. Island Press.
165. Newman, P., & Kenworthy, J. (1999). Automobile Dependence at the End of the Twentieth Century. In *Sustainability and Cities: Overcoming Automobile Dependence*.
https://books.google.com/books/about/Sustainability_and_Cities.html?hl=fr&id=pj atbiavDZYC
166. Ooi, J. T. L., & Le, T. T. T. (2013). The spillover effects of infill developments on local housing prices. *Regional Science and Urban Economics*, 43(6), 850–861.
<https://doi.org/10.1016/J.REGSCIURBECO.2013.08.002>
167. Paddison, R. (2001). Handbook of Urban Studies. SAGE Publications.
<https://books.google.dz/books?id=ikLYCmCeX7sC>
168. Panerai, P., Depaule, J. C., & Demorgon, M. (1999). Analyse urbaine. Éditions Parenthèses.
169. Paquot, T. (1999). La ville se refait sur la ville. *Urbanisme*, 307, 6–8.

170. Patil, M. (2023). Unlocking Urban Density: Beyond Numbers and into Perception. *Tekton: A Journal of Architecture, Urban Design and Planning*, 10(2), 33–47.
171. Peltzman, S., Levine, M. E., & Noll, R. G. (1989). The Economic Theory of Regulation after a Decade of Deregulation. *Brookings Papers on Economic Activity. Microeconomics*, 1989, 1. <https://doi.org/10.2307/2534719>
172. Pinnegar, S., Randolph, B., & Freestone, R. (2015). Incremental urbanism: Characteristics and implications of residential renewal through owner-driven demolition and rebuilding. *Town Planning Review*, 86(3), 279–301. <https://doi.org/10.3828/tpr.2015.18>
173. Piron, O. (2002). *Renouvellement urbain: Analyse systémique*. Presses polytechniques et universitaires romandes.
174. Power, A. (2010). Housing and sustainability: Demolition or refurbishment? *Proceedings of the Institution of Civil Engineers: Urban Design and Planning*, 163(4), 205–216. <https://doi.org/10.1680/UDAP.2010.163.4.205/ASSET/IMAGES/SMALL/UDAP163-205-F5.GIF>
175. Prenant, A. (1953). Facteurs du peuplement d'une ville de l'Algérie intérieure: Sétif. *Annales de Géographie*, 62(334), 434–451. <https://doi.org/10.3406/GEO.1953.13052>
176. Rahal, K., & Boukhemis, K. (2012). RECONSTRUIRE LA VILLE SUR LA VILLE. STRATEGIES DES ACTEURS PRIVES DANS LES TISSUS COLONIAUX. Annaba.
177. Rahmani Kelkoul, L. (2023). LA QUALITÉ DE L'ESPACE URBAIN, EFFET DU RAPPORT DE L'HABITAT À LA VILLE, EXEMPLE DE SETIF EN ALGERIE. Setif.
178. Rana Amirtahmasebi, Orloff, M., Wahba, S., & Altman, A. (2016). Regenerating Urban Land. In *World bank Group* (Vol. 4, Issue 1). <https://doi.org/10.1596/978-1-4648-0473-1>
179. Riadh, D., & Osman, M. M. (2021). HOUSING CRISIS IN ALGERIA: CHALLENGES AND PERSPECTIVES. In *Journal of the Malaysian Institute of Planners VOLUME* (Vol. 19).
180. Roberts, P., Sykes, H., & Granger, R. (2000). *Handbook for Urban Regeneration*. In Sage. <https://dl.urban-center.ir/booklibrary/urbanregeneration.pdf>
181. Rousseau, M. (2015). Extensions of centrality. *Environment and Planning B: Planning and Design*, 42(2), 221–241.
182. Safar Zitoun, M., & Talamali, A. (2009). Croissance urbaine et usage des terres dans la basse vallée de l'oued El Harrach (Alger): Entre aménagement du territoire et stratégies individuelles. *Méditerranée*, 112, 109–116.

183. Said, E. W. (2014). Culture and imperialism [electronic resource]. In Culture and imperialism. Random House.
184. Saidouni, M. (2000). Eléments d'analyse de l'espace résidentiel: cas du quartier colonial de Belfort à Alger. <http://bibliotheque.univ-alger.dz/jspui/handle/1635/1544>
185. Saïdouni, M. (2001). Conception rationnelle, production et pratiques de l'espace: cas de la restructuration des quartiers illégaux. Université Mohammed V-Agdal.
186. Schawch, W. (1998). Le recours à la tradition dans l'architecture contemporaine. PPUR presses polytechniques.
187. Scheer, B. C. (2008). Urban morphology and urban design. *Urban Morphology*, 12(2), 140–142.
188. Scoffham, E., & Vale, B. (2021). How Compact is Sustainable—How Sustainable is Compact? *The Compact City*, 66–72. <https://doi.org/10.4324/9780203362372-13>
189. Semmoud, N. (2001). Alger: citadinité et urbanité dans la durable. Éditions l'Harmattan.
190. SERVICE, C. R., & LIBRARY OF CONGRESS. (1978). The Central City Problem and Urban Renewal Policy. In U.S. GOVERNMENT PRINTING OFFICE: Vol. XXX. <https://books.google.com>
191. Sharifi, A., & Yamagata, Y. (2014). Resilient urban planning: Major principles and criteria. *Energy Procedia*, 61, 1491–1495. <https://doi.org/10.1016/J.EGYPRO.2014.12.154>
192. Sites, W. (1997). The Limits of Urban Regime Theory. *Urban Affairs Review*, 32(4), 536–557. <https://doi.org/10.1177/107808749703200405>
193. Sitte, C. (1996). L'art de bâtir les villes: l'urbanisme selon ses fondements artistiques. In Éditions du Seuil, Paris. Éditions du Seuil.
194. Slimani, N., & Raham, D. (2023). URBAN GROWTH ANALYSIS USING REMOTE SENSING AND GIS TECHNIQUES TO SUPPORT DECISION-MAKING IN ALGERIA—THE CASE OF THE CITY OF SETIF. *Journal of the Geographical Institute Jovan Cvijic SASA*, 73(1), 17–32. <https://doi.org/10.2298/IJGI2301017S>
195. Squires, G. D. (1989). Unequal Partnerships. Rutgers University Press. <https://www.ubcpres.ca/unequal-partnerships>
196. Steadman, P. (2014). Building Types and Built Forms. Matador.
197. Stone, C. N. (1993). URBAN REGIMES AND THE CAPACITY TO GOVERN: A Political

- Economy Approach. *JOURNAL OF URBAN AFFAIRS*, 1, 1–28.
198. Tallon, A. (2013). Urban regeneration in the UK, second edition. *Urban Regeneration in the UK, Second Edition*, 1–331. <https://doi.org/10.4324/9780203802847>
199. Tan, X., & Altrock, U. (2016). Struggling for an adaptive strategy? Discourse analysis of urban regeneration processes – A case study of Enning Road in Guangzhou City. *Habitat International*, 56, 245–257. <https://doi.org/10.1016/J.HABITATINT.2016.06.006>
200. Taylor, N. (Nigel M. . (1998). *Urban planning theory since 1945*. SAGE Publications.
201. Teller, J. (2001). La régulation morphologique dans le cadre du projet urbain. Spécification d'instruments informatiques destinés à supporter les modes de régulation performantiels. 255. <http://hdl.handle.net/2268/18578>
202. Teller, J. (2021). *Social Power Recycling in Oppressed Societies Causing Inadvertent Extinction of others*.
203. Tiesdell, S., & Carmona, M. (2007). *Urban Design Reader*. In *Urban Design Reader*. Routledge. <https://doi.org/10.4324/9780080468129>
204. Tiesdell, S., Oc, T., & Heath, T. (1996). *Revitalizing historic urban quarters*. Architectural Press.
205. United Nations Development Programme. (2012). *The sustainable future we want*. <https://www.undp.org/es/publications/informe-anual-2012-el-futuro-sostenible-que-queremos>
206. Voldman, D., & Vayssiere, B. (1989). Reconstruction. Deconstruction. Le "hard French" ou l'architecture française des Trente Glorieuses. In *Vingtième Siècle. Revue d'histoire* (Issue 22). Département de Construccions Arquitectòniques I. <https://doi.org/10.2307/3769291>
207. Ward, K. (1996). Rereading urban regime theory: a sympathetic critique. *Geoforum*, 27(4), 427–438. [https://doi.org/10.1016/S0016-7185\(97\)87197-7](https://doi.org/10.1016/S0016-7185(97)87197-7)
208. Whitehand, J. W. R., Gu, K., Conzen, M. P., & Whitehand, S. M. (2014). The Typological Process and the Morphological Period: A Cross-Cultural Assessment. <https://doi.org/10.1068/B39097>, 41(3), 512–533. <https://doi.org/10.1068/B39097>
209. Wiel, M. (2005). *Ville et mobilité: un couple infernal*. Editions de l'Aube.
210. Wilson, W. J. (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. University of Chicago Press.
211. Xiaoxi, H. (2013). *Housing, Urban Renewal and Socio- Spatial Integration A Study on*

Rehabilitating the Former Socialistic Public Housing Areas in Beijing. In TU Delft (Vol. 11, Issue 1). <http://link.springer.com/10.1007/978-3-319-59379-1%0Ahttp://dx.doi.org/10.1016/B978-0-12-420070-8.00002-7%0Ahttp://dx.doi.org/10.1016/j.ab.2015.03.024%0Ahttps://doi.org/10.1080/07352689.2018.1441103%0Ahttp://www.chile.bmw-motorrad.cl/sync/showroom/lam/es/>

212. Zhang, A., Kwan, M.-P., Batty, M., Goodchild, M. F., & Shi, W. (2021). *Spatial Economics , Urban Informatics .* Springer Nature Singapore.
213. Zhang, B., Xiong, Y., Liu, H., Lyu, S., & Skitmore, M. (2023). A Comprehensive Bibliometric Analysis of Urban Renewal Research during 2012–2022. *Buildings*, 13(11). <https://doi.org/10.3390/buildings13112826>
214. Zheng, H. W., Shen, G. Q., & Wang, H. (2014). A review of recent studies on sustainable urban renewal. *Habitat International*, 41, 272–279. <https://doi.org/10.1016/j.habitatint.2013.08.006>
215. Zuk, M., Bierbaum, A. H., Chapple, K., Gorska, K., & Loukaitou-Sideris, A. (2018). Gentrification, Displacement, and the Role of Public Investment. *Journal of Planning Literature*, 33(1), 31–44. <https://doi.org/10.1177/0885412217716439>

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Appendices

Appendice 1 : Questionnaire online (Google form)

إستبيان لاستكمال بحث دكتوراه ترمي لتحسين محيطنا العمراني و الحضري Enquête de recherche d'une thèse de doctorat sur la densification résidentielle de l'habitat individuel et le renouvellement urbain

1. هذا الاستبيان حول: زيادة الكثافة السكانية و التحديث العمراني
2. مراعاة السرية التامة و عدم الكشف عن الهوية أثناء معالجة البيانات
3. مدة الاستبيان تتراوح بين 10-15 دقائق تقريبا
4. استعمال الحالة الأفقية للشاشة عند استعمال الهاتف النقال لإظهار كل الخيارات
5. شكرا على مساهمتك (مشاركتك)

Tranche d'âge الفئة العمرية

	10-15	15-20	20-30	30-50	50-80
Ligne 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Sexe الجنس

- H ذ
- F أ

Niveau d'instruction المستوى الدراسي

	متوسط	Collège	ثانوي	Lycée	جامعي	Sans دون اجابة réponse
Ligne 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Membres de la famille عدد أفراد العائلة

- 2
- 3
- 4
- 5
- 6
- 7+
- Autre : _____

Revenu mensuel الدخل الشهري (دينار جزائري)

- Moins de 20 000 أقل من 20 000
- 20 000-40 000
- 40 000-60 000
- 60 000-80 000
- 80 000-100 000
- Plus de 100 000 أكثر من 100 000
- Autre : _____

Vous habitez le quartier depuis منذ متى تسكن في الحي؟

	0-5	سنوات 05-10 ans	15-10	30-15	+ 30
Ligne 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Vous habitez أين كنت تسكن؟ (قبل تحويل السكن)

- Villa فيلا
- Appartement شقة
- Autre : _____

Votre habitation est هل مسكنكم هو :

- Préservée sans transformation مسكن أصلي (غير مجدد)
- Réhabilitée معاد التهيئة
- Démolition-Nouvelle construction معاد البناء كلياً
- Autre : _____

مساحة الأرضية (متر مربع) **Surface totale de terrain**

Votre réponse

المساحة المبنية (متر مربع) **Surface bâtie**

Votre réponse

عدد الطوابق (ط + رقم) **Nombre d'étages R+ n°**

Votre réponse

مواصفات السكن **Description de l'habitation**

	سكن فردي عائلة واحدة (فيلا) Habitat individuel	شقة (في ترقية عقارية) Appartement dans une promotion	عدة عائلات في سكن فردي Habitat Plurifamilial
Ligne 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

هل هذا السكن هو ؟ **Votre habitation actuelle est**

- Héritage إرث
- Achat شراء
- Location كراء
- Auto construction بناء ذاتي
- Autre : _____

في حالة منزل عائلة كبرى: كم من **En cas de grande famille: combien de petites familles**
عائلة مصغرة في نفس البناية

Votre réponse

ما نوع العلاقة بين **Quelle relation et/ou lien entre habitants de la même habitations**
العائلات المصغرة (في نفس المسكن)

- Liens de parenté قرابة عائلية
- Relation de voisinage علاقة جوار
- Belle famille أنساب
- Autre : _____

هل يحتوي مسكنكم على: **Votre habitation dispose de**

	حديقة Jardin	فناء(حوش) (s)Cour	سطح مستعمل Terrasse accessible	عالية Comble habitable	قبو Cave ou sous-sol
Ligne 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

إذا أجريتم تعديل أو تغيير ؟ **Si vous avez transformé**

- زيادة طابق أو أكثر Un étage ou plus
- بنا الحديقة Annexion du jardin
- زيادة عدد الغرف Plus de chambres
- تحويل الطابق الأرضي إلى محلات RDC commercial
- تغييرات في الواجهة Façade(s) transformée(s)
- Autre : _____

إذا أجريتم تعديل أو تغيير، ما هي أسبابه؟ **Si transformée, pour quelles raisons?**

- وظيفية Fonctionnelle
- مساحة Plus de superficie habitable
- جمالية Esthétique
- إقتصادية Economique
- لا Non
- Autre : _____

في حالة ترقية عقارية (في حي سكني) **En cas de promotion: combien d'appartements?**

فردية) : كم من شقة في نفس البناية

Votre réponse _____

هل زاد ثمن العقار و **Le prix d'immobilier a-t-il augmenté après les transformations**

السكن بعد التغييرات؟

- نعم زاد Oui ça a augmenté
- لا نقص Non ça a baissé
- لم يتغير ça n'a pas changé

هل قمتم بشراء مسكن ؟ En cas d'achat, vous avez acheté ?

- Fini جاهز
- Semi-fini نصف جاهز
- Vente sur plans بيع على المخططات

هل يمكنكم تحديد ثمن المتر المربع حاليا ؟ (مليون سنتيم) / المترمربع

الوحدة (مليون سنتيم) / المترمربع

	12-14 م/م مربع (millions/m2)	14-16	16-18	18-20	Plus de 22
Ligne 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

معلومات حول الحي السكني Informations sur le quartier

هل الكثافة السكنية: عدد السكان/مساحة الحي

	1	2	3	4	5	
ضعيفة Faible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	مرتفعة جدا (إكتظاظ) Elevée

هل الكثافة العمرانية: عدد السكنات/مساحة الحي

	1	2	3	4	5	
ضعيفة Habitat peu dense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	مرتفعة جدا (إكتظاظ المساكن) : Habitat dense

الواجهات Façades

Moins
homogènes après
transformations

Plus homogènes après
transformations

Ligne 1

Vis-a-vis إطلالة البنايات على بعضها البعض و التقابل

- Affecte l'intimité تؤثر على الخصوصية
- Affecte la sécurité تؤثر على الأمن
- Affecte l'aération et l'ensoleillement تؤثر على التهوية و التشميس
- Autre : _____

Reduction d'espaces non bâtis (jardins, placette, espace public) الفضاءات الغير مبنية في (تأقاص حدائق، ساحات، فضاء عام)؟

- Oui نعم
- Non لا

La couverture végétale a diminué a cause de la densification الغطاء النباتي (المساحات الخضراء) في تأقاص بعد التكتيف السكني

- | | | | | | | |
|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|
| | 1 | 2 | 3 | 4 | 5 | |
| نعم | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | لا |

Aires de jeux فضاءات اللعب

من ناحية وجودها و تهيأتها

- | | | | | | | |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| | 1 | 2 | 3 | 4 | 5 | |
| غير كافي Insuffisant | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | مقبول Acceptable |

Propreté, collecte et gestion de déchets ménagers النظافة و جمع القمامة

- | | | | | | | |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| | 1 | 2 | 3 | 4 | 5 | |
| غير كافي Insuffisant | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | مقبول Acceptable |

Les voies sont favorables a la fluidité de circulation هل الطرقات مناسبة لحركية جيدة ؟ للسيارات

- Oui نعم
- Non لا

هل أبعاد و حالة **Largeur et état des trottoirs favorable à la marche et au déplacement** الأرصفة تساعد على المشي للتنقل ؟

- Oui نعم
- Non لا

Impacts positifs des transformations/renouvellement dans le quartier +++ إيجابيات
تغييرات السكنات في الحي الذي تسكنه

- Superficie et confort المساحة والرفاهية
- Proximité et densité التقارب والكثافة
- Relations et réseaux sociaux العلاقات والشبكات الإجتماعية
- La gentrification (Habitants plus riches) إستبدال السكان بفتنة سكانية أغنى
- Moins de conflits de voisinage أقل نزاعات جوار
- Circulation et stationnement des voitures حركة ووقوف السيارات
- Image et attractivité du quartier صورة الحي وجاذبيته
- Autre : _____

Impacts négatifs des transformations/renouvellement سلبيات تغييرات السكنات في الحي --- الذي تسكنه

- Superficie et confort المساحة والرفاهية
- Proximité et densité التقارب والكثافة
- Relations et réseaux sociaux العلاقات والشبكات الإجتماعية
- La gentrification (Habitants plus riches) إستبدال السكان بفتنة سكانية أغنى
- Moins de conflits de voisinage أكثر نزاعات الجوار
- Circulation et stationnement des voitures حركة ووقوف السيارات
- Image et attractivité du quartier صورة الحي وجاذبيته
- Autre : _____

Avez-vous des amis dans le quartier هل لديكم أصدقاء في الحي ؟

- Oui نعم
- Non لا
- Amis proches أصدقاء مقربين
- Autre : _____

Motifs de visites entre voisins سبب الزيارات بين الجيران

- Courtoisie مجاملة
- Maladie مرض
- Aide financière مساعدة مالية
- Evènement spécial مناسبة (وليمة)
- Deuil عزاء

Les relations sociales et de voisinage dans le quartiers sont : العلاقات الإجتماعية و الجوار : في الحي

- Meilleures après densification أحسن بعد تكثيف السكنات
- Normales عادية
- Pires après densification أسوء بعد تكثيف السكنات
- Autre : _____

Les relations sociales et de voisinage dans le quartiers sont : العلاقات الإجتماعية و الجوار : في الحي

- Meilleures après densification أحسن بعد تكثيف السكنات
- Normales عادية
- Pires après densification أسوء بعد تكثيف السكنات
- Autre : _____

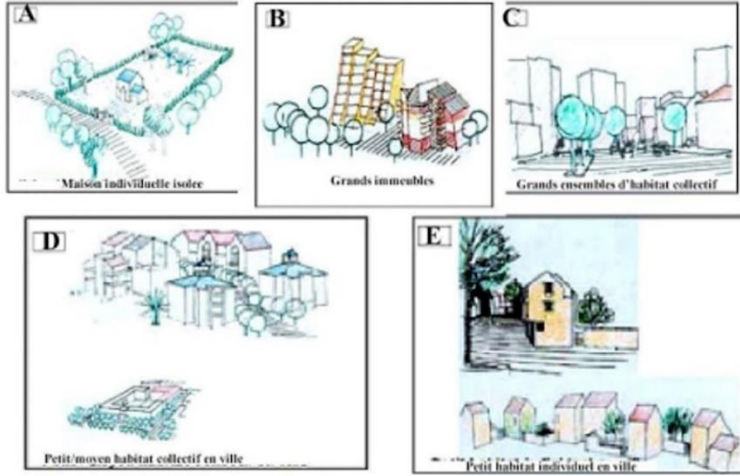
Pensez vous déménager هل تنو الرحيل عن الحي ؟

- نعم
- لا

Pour quelle raison souhaitez vous rester ما هو سبب نيتكم في البقاء أو الرحيل ؟

Votre réponse _____

Vers quel type déménageriez vous ? لأي نوع من المساكن تعزمون الرحيل ؟



- A
- B
- C
- D
- E
- Autre : _____

Connaissez vous le renouvellement urbain? هل سمعتم من قبل عن مفهوم التحديث العمراني؟

- نعم
- لا

Que pensez vous de la substitution des habitations individuelles par des immeubles d'appartements? ما تعليقكم عن استبدال بنايات فردية ببنايات جماعية في شكل شقق؟

- Positif إيجابي
- Négatif سلبي
- Peut constituer une solution sous conditions يمكن أن يكون حل جيد بشروط
- Autre : _____

Selon vous, quels sont les facteurs favorables a la réussite du renouvellement urbain dans le quartier? ما هي العوامل التي يجب مراعاتها لإنجاح التحديث العمراني في الحي؟

Votre réponse _____

هل أنت مع **Étes-vous pour le renouvellement urbain (démolition-construction)?** **التحديث العمراني (هدم إعادة بناء)**

Pour نعم

Contre لا

هل لديك ملاحظات أخرى? **Avez vous d'autres remarques?**

Votre réponse

Retour

Envoyer

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Effacer le
formulaire

Appendice 2 : Maps

