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THEME :

THE SECONDARY URBAN CENTRALITY AS A FUNDAMENTAL UNIT IN THE STRUCTURAL BALANCE OF THE CITY OF BLIDA.

PROJECT :

Design of a Multifunctional Center in the Ben Achour District

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PREAMBLE

Faced with the congestion and saturation of old city centers, peripheral polarization through the creation of multifunctional centers appears to be a relevant strategy for rebalancing urban organization.

create a new, attractive centrality (Bourdin, 2010; Merlin & Choay, 2010).

Its success depends on a number of factors: optimized accessibility (public transport, structuring roads), high urban quality (user-friendly public spaces, quality architecture) and harmonious integration into the existing urban fabric (European Commission,

1999). By promoting urban polycentrism, this strategy not only helps to relieve the pressure on historic city centers, but also stimulates territorial development on the outskirts, while ensuring a better distribution of facilities and services. It is also in line with sustainable development by limiting travel, revitalizing urban bangs and reducing

pressure on old town centers in terms of land and heritage. Peripheral polarization by means of a multifunctional center represents a contemporary development solution to the challenges of urban decongestion, territorial equity and functional

modernization of the city.

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1.THE INTRODUCTORY SECTION

1.1 General introduction:

The rapid evolution of contemporary urban dynamics confronts cities with numerous challenges, among which the excessive concentration of functions in city centers occupies a central place. Historically conceived as the nerve centers of conurbations, urban centers continue to polarize the majority of economic, administrative, social and cultural activities. This centralization is gradually leading to saturation of space, increasing pressure on infrastructures, and a marked deterioration in the quality of urban life. Traffic jams, pollution, overuse of facilities and soaring property prices are the most visible manifestations. To counter the excessive concentration of functions in city centers, current planning policies aim to rebalance urban space. The development of central areas on the outskirts of towns appears to be a strategic solution for distributing activities and services more evenly, limiting travel to the center and improving accessibility for outlying populations.

1.2 Issues:

City centers, historically conceived as the heart of urban activities, still concentrate the majority of economic, administrative, cultural and social functions. This excessive concentration is gradually leading to saturation of public spaces and transport infrastructures, an increase in nuisance (noise, pollution, traffic jams) and a deterioration in quality of life. This situation not only limits the flow of traffic, but also generates growing pressure on land and property, making central urban areas difficult to access and adapt to contemporary changes.

Against this backdrop, the creation of peripheral hubs has emerged as a land-use planning strategy to rebalance the urban structure by relieving congestion in traditional centers. These new peripheral hubs aim to redistribute functions and bring services, facilities and activities closer to the population living on the outskirts. However, for a peripheral centrality to be effective, it must meet a set of precise urban criteria: attractiveness, accessibility, functional mix and harmonious integration into the urban fabric.

It is with this in mind that the multifunctional center, inherited from the shopping center model but extended to include other urban functions (cultural, social, administrative, recreational), becomes a relevant tool for structuring these new centralities. The challenge then lies in the ability of this type of project to embody a real centrality, capable of capturing a share of the flows currently monopolized by the city center, while at the same time being consistent with the development of the peripheral fabric.

So how can we design a multifunctional center on the outskirts that is not just a commercial space, but a genuine urban hub, actively contributing to relieving congestion in the city center and to the overall balance of the city?

1.3 Specific issues:

1. What are the signs of a congested city center and the structural causes of this phenomenon?
2. What are the criteria for defining and achieving urban centrality according to contemporary urban theory?

3. How has the concept of peripheral centrality developed historically, and what are the conditions of its emergence?

4. How can the multifunctional center be a lever for territorial structuring and an effective tool for relieving congestion?

1.4 Hypotheses:

In order to answer the questions posed, we consider the following hypotheses:

 Downtown congestion is mainly due to an over-concentration of urban functions, limited accessibility, and a spatial imbalance in the distribution of attractive poles.

 A peripheral centrality can emerge and function effectively if it integrates a functional mix (retail, services, culture, leisure, etc.), good accessibility and coherent integration into the urban network.

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 The multifunctional center, derived from the shopping mall model, is part of a more sustainable urban transformation logic, combining economic, social and cultural functions adapted to the peripheral context.

 The success of a peripheral centrality project also hinges on its ability to meet the specific needs of suburban populations, while linking in with the dynamics of the historic center

1.5 Reasons for choosing this theme:

The accelerated urbanization of today's cities has led to an excessive concentration of activities, populations and flows in city centers, resulting in saturation, congestion, deterioration of the living environment and loss of quality in public spaces. This dynamic highlights the need to rethink urban organization to ensure more balanced and sustainable development.

It is against this backdrop that the question of urban centrality comes to the fore. While historic town centers are still essential hubs, their monopoly is increasingly being challenged in favor of urban polycentricism. The creation of peripheral centralities is therefore a strategic response to relieve congestion in old town centers, rebalance the urban structure and meet growing needs for accessibility, functional diversity and proximity.

The decision to study this theme stems from a dual desire: on the one hand, to analyze the dysfunctions associated with the excessive centralization of urban functions, and on the other, to propose an alternative model through the design of a multifunctional center on the outskirts, capable of playing the role of a new sustainable urban centrality. This center, inspired by the concept of a shopping mall but enriched with a variety of functions (cultural, administrative, recreational, social...), would help structure the peripheral space, create urban attractors and reinforce territorial cohesion.

This research is fully in line with current concerns about sustainable urban planning and the resilient, inclusive city. It aims to contribute to the debate on new modes of urban organization, integrating criteria of functionality, sustainability, territorial equity and quality of life. Through this dissertation, the aim is to propose an innovative approach, rooted in local reality but open to global issues

1.6 Objectives:

This research aims to:

- Analyze urban imbalances caused by the over-concentration of functions in city centers, identifying signs of saturation and their root causes.

- Explore the principles of urban centrality through the contributions of contemporary urban theory, in order to identify the criteria for the success of a new centrality.

- Study the development of the concept of peripheral centrality, its origins, its evolution and the conditions favorable to its implementation in today's urban context.

- Assess the potential of the multifunctional center as a territorial planning tool, capable of redistributing urban flows, improving accessibility and reinforcing spatial networking.

- Propose a model for a peripheral multifunctional center that meets the requirements of functional mix, attractiveness, accessibility and sustainability, in order to contribute to a coherent and structuring rebalancing of the city of Blida.

1.7 Research methodology :

In our research, we followed a scientific methodology that contributed to the overall mastery of the project across its different scales, starting from the territorial scale right down to the project details. This study focuses on all the questions that underpin our theme, entitled "THE SECONDARY URBAN CENTRAL AS A FUNDAMENTAL UNIT IN THE STRUCTURAL BALANCE OF THE CITY OF BLIDA".

The method used in this dissertation is structured in four main parts. We began our work with **the thematic section**, which sets out our subject in detail, explaining the key concepts linked to the elements of the problematic, as well as those linked to the proposed solutions.

We then moved on to the second part, entitled **the Analytical Section**, which offers a reading of the territory that has enabled us to achieve an in-depth understanding of the dynamics of human settlement.

This analysis was followed by a refocusing on the city of Blida, through a **diachronic** and **synchronic** reading of our case study. This led to the identification of the general problem, the definition of our intervention entity - the city of Blida - and the identification of the specific problem to which we are seeking to provide concrete answers.

Finally, the last part of the dissertation is devoted to proposing an alternative, in the form of a **master plan** on the scale of our case study, accompanied by an architectural project - a multifunctional center - designed in response to the specific problem identifie .

2- THE THEMATIC SECTION

2.THE THEMATIC SECTION

2.1 INTRODUCTION :

In order to guarantee the proper functioning of a centrality and ensure its full role, it is essential to begin by understanding what an urban centrality is, as well as the criteria that define it. This understanding is all the more necessary when the aim is to transpose this notion to a peripheral context. With this in mind, in-depth research into the theoretical and practical underpinnings of centrality is essential, in order to provide food for thought about its requalification or creation on the periphery.

2.2 CHAPTER 1: KEY WORDS FOR THE THEME

2.2.1 Definition of urban centrality:

For René Péron, centrality is the ability of a space "to generate certain forms of abundant social interaction in the relationships established with goods, with places, with others"[(1)] (1997: 8). Urban centrality is a fundamental principle of urban planning and architecture, which refers to the chance that a space, neighborhood or urban area has to play a structuring role in the city's organization. It is defined by a high concentration of economic, social, cultural and administrative activities, of interest not only to local residents, but also to a wider outside population. It is this symbolic and functional appeal that gives a locality the appellation of "center". In the final analysis, an urban centrality is like a pole of attraction, creating daily exchanges of people, goods, information and capital. It combines essential functions such as:

- Shops (convenience stores and supermarkets),
- Offices and administrative facilities (town halls, public services),
- Cultural and leisure facilities (cinema, theater, museum),
- Transportation (train stations, intermodal stations, major mobility routes), And sometimes regional health or education services
- Centrality is therefore not just a question of geographical location; it is also based on functional and symbolic density. For a place can be peripheral but centralized, depending on its programming, accessibility and the diversity of its services.

(Agence nationale de la cohésion des territoires & INRAE-CESAER, 2020)

2.2.2 Theoretical basis of centrality:

The notion of centrality evokes the attractiveness, fullness and dominance of one space (the center) over another (the periphery) (Monnet 2000). It highlights the structuring and polarizing influence of certain areas on others, due to the concentration of populations, economic

[1] Péron, R. (2004). The Boxes: Large Retail Outlets in the City. L'Atalante

activities, decision-making powers, financial resources, services, functions, etc. (Reynaud 1981). In addition to this spatial agglomeration dynamic, centrality is also based on a territory's ability to capture, organize, structure and disseminate flows of people, information and goods (Gaschet, Lacour 2002). Beyond these functional dimensions, it is a social and symbolic construct, shaped by concrete practices as well as individual and collective socio-spatial representations that attribute differentiated meaning and importance to places (Collectif-Rosa-Bonheur 2016; Marchal, Stébé 2013; Monnet 2000). Centrality is multi-dimensional, unfolding spatially, socially, economically, politically, culturally and/or symbolically (Marchal, Stébé 2013). It is also evolutionary and dynamic, capable of shifting, disappearing, intensifying, expanding and crumbling over time and space (Bertoncello 2007; Gaschet, Lacour 2002). Finally, it is multiscalar and relative, in the sense that a territory's influence can be structuring on all scales, from local to international, and can only be understood in relation to the sometimes more powerful influence of other territories (Dumont 2017).

(Michel, 2024)

2.2.3 Urban centrality criteria:

2.2.3.1 Definition criteria :

2.2.3.1.1 DEMOGRAPHIC APPROACH:

 Population threshold : A certain minimum number of inhabitants is often required to define an urban centrality. For example, in France, an urban unit must have at least 2,000 inhabitants.

 Population density : Population density is also an important criterion. For example, an urban area can be defined by a minimum density of 1,500 inhabitants per km

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.3.1.2 MORPHOLOGICAL APPROACH:

 Building continuity : Building continuity is a key factor. For example, in France, an urban unit is defined by a continuous built-up area with no break of more than 200 meters between two buildings.

 Territorial configuration : The spatial configuration of the city, including the proximity of buildings and the organization of the territory, is taken into account.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

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2.2.3.1.3 FUNCTIONAL APPROACH:

 Urban functions: An urban centrality is often defined by the concentration of certain functions, such as administrative, economic, social, cultural and intellectual services.

 Jobs and services: The presence of a certain number of jobs and essential services, such as hospitals, schools, universities, etc., is an important criterion.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

 Labor market: Urban centrality can be defined by the concentration of jobs and the dynamics of the labor market, including commuting.

(Agence nationale de la cohésion des territoires & INRAE-CESAER Dijon, 2020).

2.2.3.1.4 ADMINISTRATIVE APPROACH:

 Administrative status: Some cities are designated as central by political decision, irrespective of their demographic size.

(Hilal, Le Bris, Toutin, & Barbier, 2020)

 Administrative role: The administrative role of a town, such as a departmental or regional capital, can also be a defining criterion.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.3.2 Success criteria:

2.2.3.2.1 FUNCTIONAL MIX:

 Diversity of functions: A successful urban centrality must integrate residential, commercial, industrial and leisure functions within the same perimeter.

 Proximity to services: Essential services must be easily accessible on foot or by public Transport.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.3.2.2 CONNECTIVITY AND MOBILITY:

 Transportation network: An efficient, well-connected public transportation network is essential to reduce dependence on personal vehicles and improve quality of life.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

 Accessibility: The urban core must be easily accessible for residents and workers, including those in outlying areas.

(Hilal, Le Bris, Toutin, & Barbier, 2020)

2.2.3.2.3 QUALITY OF LIFE:

 Green spaces and leisure areas: The presence of green spaces, parks and leisure areas is a key element in improving residents' quality of life.

 Healthy environment: A successful urban center must offer a healthy environment, with reduced pollution levels and pleasant living conditions.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.3.2.4 DYNAMIC ECONOMY:

 Economic diversity: A diversified economy, with a significant presence of tertiary and service sectors, is a sign of success.

 Attractiveness: Urban centrality must be attractive to investors and businesses, as measured by the occupancy rate of commercial and industrial premises.

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.3.2.5 SOCIAL COHESION:

 Social interaction: A successful urban center fosters social interaction and community cohesion, for example through well-designed public spaces.

 Social equity: Equitable access to services and economic opportunities for all residents is an important criterion for success

(Agence nationale de la statistique et de la démographie [ANSD], 2024)

2.2.4 Congestion and congestion-related issues:

Rapid urban growth, combined with excessive centralization of functions, is leading to increasing congestion and overcrowding in many contemporary cities. This model, based on the concentration of activities in the city center, is proving ill-adapted to today's needs, particularly in contexts such as Blida, where urbanization has accelerated without sufficient structural support. This unbalanced dynamic has given rise to a series of malfunctions that have a profound impact on the quality of urban life. In particular, the living environment is deteriorating, due to densification, pollution and the saturation of public spaces. This is accompanied by territorial inequalities and spatial imbalances between an overloaded city center and underequipped suburbs. The mobility network, meanwhile, is struggling to keep up with growing demand, giving rise to accessibility problems and recurring congestion. Added to this is increasing pressure on land in the center, leading to real estate saturation and limiting any functional development. Finally, the lack of a functional mix and local services reinforces dependence on the city center, further accentuating flows and pressure on the central area. An analysis of these issues provides a better understanding of the limits of Blida's current urban model, and opens the way to a reflection on the need to rethink territorial organization through a more polycentric, balanced and sustainable approach.

2.2.4.1 Blida's deteriorating living environment:

The deterioration of Blida's living environment is a complex problem that affects many aspects of the urban environment. Here are the main causes and manifestations of this phenomenon:

2.2.4.1.1 ANARCHIC URBANIZATION:

 Rapid urban growth: The city has undergone accelerated urban growth, with the expansion of housing estates on the outskirts. Dormitory towns have proliferated, disrupting the urban landscape and degrading the living environment.

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 Lack of green spaces: The absence of any serious consideration of urban planning has led to a scarcity of green spaces. Vacant land is often reclaimed for collective housing projects, further depreciating the living environment.

(nawel.d, 2011)

2.2.4.1.2 PUBLIC HEALTH AND HYGIENE ISSUES:

 Garbage dumps: Garbage dumps have proliferated on the city's outskirts, and neighborhoods are often littered with garbage and stale bags.

 Poorly organized waste collection: Garbage collection is poorly organized, and bins are often inadequate. For example, in the Frères Zedri housing estate, residents complain that there are not enough bins to meet their daily needs

(nawel.d, 2011)

2.2.4.1.3 INFRASTRUCTURE DETERIORATION:

 Urban roads: Streets and sidewalks are often in poor condition, with cracks, potholes and degraded cobblestones.

(Abdelli, 2010)

 Precarious housing: There are still areas where housing is precarious and in danger of collapse. However, efforts are underway to rehouse the inhabitants of these areas in decent housing.

(Tayeb, 2024)

2.2.4.2 Territorial inequalities and spatial imbalances in the city of blida

Territorial inequalities and spatial imbalances are major problems in the city of Blida. Here are the main manifestations and causes of these inequalities:

2.2.4.2.1 ACCESS TO BASIC SERVICES:

 Sanitation: The rate of connection of buildings to sewerage networks is low, with an average of 82% in 2017 in the state of Blida, and only 65.85% in the municipality of Guerouaou. This is due to land ownership problems and insufficient municipal budgets.

 Access to drinking water: There are also disparities in access to drinking water, with more remote or less developed areas benefiting from less reliable service.

(Ikhlefhoum & Ziane, 2019)

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2.2.4.2.2 EMPLOYMENT AND ECONOMIC DEVELOPMENT:

 Disparities between zones: Some areas of Blida benefit from more economic opportunities than others. For example, the city center has a higher concentration of commercial and service activities, while the outskirts can be more affected by unemployment.

 Informal sector: The informal sector is predominant in some parts of the city, which can lead to precarious working conditions and a lack of social protection for workers.

(The revitalization of the historic center of Blida–Algeria, s.d.)

2.2.4.2.3 HOUSING :

 Precarious housing: Despite rehousing efforts, there are still areas where dwellings are precarious and threaten ruin. Housing conditions can vary considerably from one neighborhood to another.

 Housing prices: Housing prices can be higher in more developed and well-served areas, making it difficult for low-income populations to access decent housing.

(The revitalization of the historic center of Blida – Algeria , s.d.)

2.2.4.2.4 UNEVEN DISTRIBUTION OF PUBLIC FACILITIES:

 Cultural and sports facilities: There is an uneven distribution of cultural and sports facilities across the city. More developed areas have access to more libraries, museums and sports centers, while outlying areas benefit less.

 Schools: Access to education can also vary from neighborhood to neighborhood, with better-quality schools in more affluent areas.

(Ikhlefhoum & Ziane, 2019)

2.2.4.3 Mobility network malfunctions in the city of Blida :

There are many dysfunctions in the mobility networks of the city of Blida, which have a significant impact on the daily lives of residents. Here are the main problems identified:

2.2.4.3.1 CONNECTIVITY PROBLEMS:

 Lack of coordination between modes of transport: Bus and train networks are poorly connected, making transfers difficult for users. For example, students at the University of Blida 1 often have difficulty getting around due to the lack of direct links between public transport systems.

• Poor rail network coverage: The rail network is inadequate, especially in outlying areas. The Algiers-Blida line is often saturated and suffers from technical problems, such as recent disruptions due to technical incidents.

(The revitalization of the historic center of Blida – Algeria , s.d.)

2.2.4.3.2 INFRASTRUCTURE PROBLEMS:

• Traffic congestion: The city of Blida has a high density of traffic, particularly on major routes such as the East-West freeway. Some 180,000 to 200,000 vehicles pass through the wilaya every other day, causing major traffic jams.

• Inadequate infrastructure: There is a lack of alternative transport infrastructure, such as cycle paths and bus lanes. Streets are often congested and cannot cope with the growing number of vehicles.

(Horizons, 2025)

2.2.4.3.3 MANAGEMENT PROBLEMS :

• Lack of coordination: There is a lack of coordination between the various transport players, which makes it difficult to implement comprehensive solutions. Efforts to modernize and rationalize transport services are often hampered by management and financing problems.

• Low investment : Investment in transport infrastructure is insufficient to meet the growing needs of the population. For example, tramway and cable car projects, although promising, are often delayed due to budgetary problems.

(Wilaya de Blida, s.d.)

2.2.4.4 Land pressure and real estate saturation in the center of Blida:

Land pressure and real estate saturation in the center of Blida are major problems affecting urban development and the quality of life of local residents. Here are the main factors that have contributed to this situation:

2.2.4.4.1 LAND PRESSURE:

• Increased demand for land: Blida town center is a highly sought-after area due to its strategic location, well-developed infrastructure and local services. This has led to a high demand for land, which in turn has driven up prices and made home ownership more difficult.

(Lamacta, n.d.)

• Limited available space: Land available for construction is increasingly scarce, limiting opportunities for real estate development. Developers are often forced to rebuild on existing land, which can be costly and complex .

(The Paper, n.d.)

2.2.4.4.2 PROPERTY SATURATION:

• Overcrowding of existing buildings : Downtown Blida is already densely populated, with numerous residential and commercial buildings. Property saturation makes it difficult to extend infrastructures and set up new services.

(Lamacta, n.d.)

• Difficulties for new projects: New construction projects are often hampered by land constraints and urban regulations. Property developers often have to negotiate with existing owners to acquire land, which can be time-consuming and complicated . lack of functional diversity and proximity to the community.

2.2.4.5 Lack of functional mix:

• Segregation of urban functions: Residential, commercial and industrial areas are often separated from each other. This forces residents to travel long distances to access basic services, workplaces and leisure areas.

• Low density of services: Public and private services are concentrated in certain areas, leaving other neighborhoods poorly served. For example, Blida's city center is overloaded with services, while outlying neighborhoods often lack local shops and public facilities.

• Dominance of residential areas: A large part of the city is occupied by monofunctional residential areas, reducing the diversity of activities and the local economic dynamic.

(The revitalization of the historic center of Blida–Algeria, s.d.)

2.3 CHAPTER 2: Notions surrounding the elements of the general problem:

2.3.1 Definition of Poles/ polarization:

In astronomical geography, the poles are the two points where the Earth's axis of rotation passes through the surface of the geoid. They are also the two points where all the meridians meet.

By analogy, the existence of the magnetic poles has given a figurative meaning to the word pole, which has been used extensively in geography and spatial economics: that of a place that attracts flows (of capital, population, goods, etc.).

The use of a physics term and its derivatives (polarity, polarization) to describe social facts can run the risk of leading to a deterministic, mechanistic approach to phenomena.

The notion of polarity, which necessarily implies attraction and repulsion, allows us to reason on the basis of models that are not reality, even if the study of deviations from this model allows us to approach a facet of reality. Borrowings from physical science have extended to the relationship between the pole and its surrounding space, which can then be thought of in terms of gravity, according to gravity models.

In economics and geography, the notion of "pole" has come to designate centers of production or production organization that attract and drive the surrounding areas. Poles are intended to polarize a region, a state or even the world.

In this sense, a multipolar area is one that is subject to the combined effects of several poles. A multipolar pole or group controls an area over which it exercises its power (area of power). Within the center-periphery framework, the notion of polarization therefore refers to the attraction exerted by a pole (the center) on a set of areas under the domination of this center. A growth pole is based on the existence of one (or more) dominant, driving units that drive and encourage economic development and changes in production structures. The concept was developed by economist François Perroux in the context of growth and polarization theories, and is based on the processes of impulse, quantitative and qualitative diffusion.

These driving forces are localized or territorialized, "agglomerated" with other companies in a given area, hence the dual economic and spatial dimension of the growth pole. Polarization

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"takes place through the concentration of resources at growth points in space where bundles of exchanges radiate together" [(2)] (Perroux, 1955).

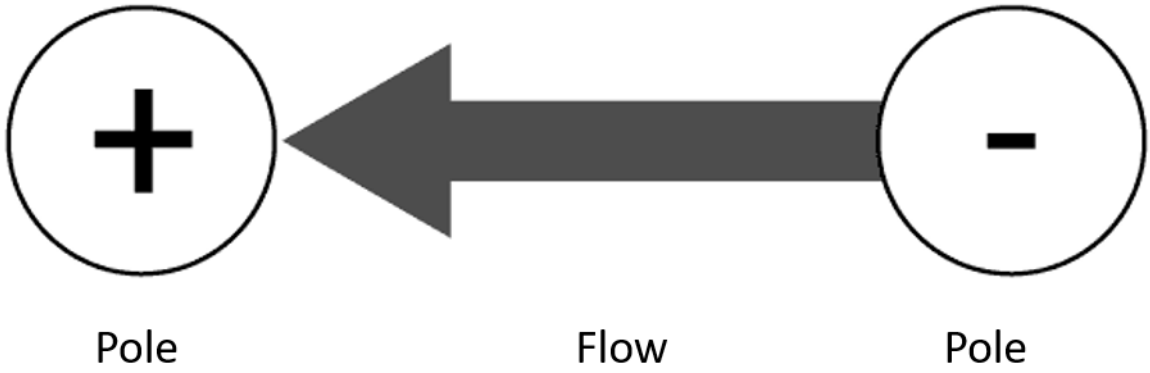

FIGURE 1POLARIZED FLOW DIAGRAM

Source :

The notion of pole in economic geography has given rise to several words or expressions such as techno pole ,or poles de competitive.

2.3.2 The center/periphery relationship (between spatial structuring and the dynamics of domination) :

The notion of periphery, often understood in its geometric sense as what lies "around" or "outside" a center, goes far beyond this common meaning when considered from a geographical perspective. In geography, the periphery is not defined independently, but always in relation to a center, forming a structuring conceptual couple based on asymmetrical interdependence. This center/periphery pairing is used to consider spatial, economic and social dynamics at different scales, and is a tool for analyzing territorial inequalities and forms of domination in the organization of spaces. Centrality concentrates decision-making, economic, cultural and technological activities. It plays a driving role in the production and redistribution of resources and flows. Conversely, the periphery is generally characterized by a position of dependence on the center, whether functional, structural or symbolic. However, this relationship is far from simple or linear: it is often complex, unstable and subject to recomposition according to historical, economic or political dynamics. The study of the

center/periphery pair became an established part of geography as soon as researchers began to question the forms of spatial differentiation. Alain Reynaud, one of the leading exponents of this approach, has proposed a detailed typology of peripheries, ranging from "integrated peripheries" to "dominated peripheries", via "neglected peripheries" and those attempting to emancipate themselves by relying on their own resources. This typology nuances the relationship between center and periphery, identifying different forms of integration,

[2] Perroux, F. (1955). Note on the Notion of "Growth Pole". Économie appliquée, 8(1–2), 307–320.

dependence or marginalization. This reading is also echoed in the work of Fernand Braudel, the historian who helped theorize the concept of the world-economy, according to which

single center exerts domination over a network of secondary or peripheral poles. In this logic, the peripheries serve as relays or areas of exploitation for the development and consolidation of the dominant center. Braudel identifies a historical rotation of centers of economic power throughout the evolution of Western capitalism: Venice, Antwerp, Genoa, Amsterdam, London, then New York successively occupied this central position in a world structured by capitalist logics. On another scale, that of the contemporary world-system, the center/periphery relationship is becoming more complex and multipolar. Geographers such as Olivier Dollfuss and Jacques Lévy have stressed the need to analyze this relationship in the context of a globalized world, where decision-making poles (transnational firms, financial institutions, Northern states) exert a decisive influence on peripheral areas scattered across the globe. In this context, peripheral areas are often instrumentalized : some are integrated into global economic circuits, others exploited for their resources, and still others left out of global dynamics.

This system is not only global; it also operates at national, regional and local levels. In a city, for example, the downtown area acts as a decision-making and functional center, concentrating shops, services, institutions and mobility. Urban peripheries, on the other hand, may find themselves in a situation of functional dependence: lack of infrastructure, poor mix, distance from workplaces and services.

This intra-urban hierarchy reproduces, on a different scale, the mechanisms of the center/periphery pair observed on a global scale.

This model, while effective in describing certain realities, should not be interpreted in a rigid manner. Peripheries are not necessarily condemned to marginality.

On the contrary, they can become places of urban reinvention, developing new centralities capable of responding locally to residents' needs. These peripheral centralities can help decentralize urban functions, improve living conditions and provide better access to amenities. In this way, they contribute to rebalancing the relationship between centers and peripheries, in a more polycentric and equitable way.

In this sense, the center/periphery approach offers a relevant reading grid for understanding territorial imbalances, but also for proposing development alternatives. Rethinking peripheral areas not as passive or dominated spaces, but as potential poles of development, is a major challenge for contemporary urban policies. It is in this perspective that we consider the creation of peripheral centralities, such as multifunctional centers, which aim to respond to the saturation of city centers while revitalizing urban margins.

2.3.4 Peripheral autonomy: between historical dependence and emancipation :

In the context of a globalized world, relations between spaces are no longer limited to a simple opposition between center and periphery. While this spatial structuring has long been explained by logics of economic and strategic domination, based on classic models such as polarization or metropolization (Boudeville, 1972), a contemporary reading reveals increasingly complex dynamics, characterized by territorial recompositions and emerging logics of independence within the peripheries themselves.

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Traditional analysis of the world-system, heavily influenced by economic theories such as Ricardo's Comparative Advantage (1817), has long attributed the role of dominant poles to the centers - located in the triad of the United States, Europe and Japan - relegating the peripheries to subordinate functions of exploitation or resource extraction. For decades, this logic justified uneven development, with the peripheries appearing structurally dependent on decisions taken at the heart of the world's economic centers. However, this vision has proved inadequate in the face of changing territorial systems and the rise of new peripheral players. On the contrary, some peripheral areas have begun to create their own dynamics, capitalizing on their resources and forging direct connections to the global network without passing through the traditional centers. This process marks a form of independence, or even increasing autonomy.

The example of the Gulf States and China is a good illustration of this reversal. These territories, historically considered peripheral, have succeeded in establishing themselves as economic centers in their own right, thanks to their capital surpluses and accelerated industrialization.

In this way, the notion of center becomes relative, and the periphery is no longer condemned to a secondary role. Indeed, Pierre Veltz (1996) argues that the centerperiphery model is losing its relevance on a global scale, as the complexity of today's interactions leads to the emergence of centers within peripheries, and vice versa.

From this perspective, the independence of peripheral areas is demonstrated not only by their ability to develop their own economy, less dependent on downstream flows, but also by their capacity to shape a specific territorial project. This project is often based on policies of decentralization, local resource management and community initiatives. It implies a redefinition of economic priorities, a reform of governance and, above all, a political will to break with the logic of historical dependence.

Andean countries such as Bolivia offer an enlightening example. Long regarded as exploited or neglected peripheries, these territories are seeking to break with the cycles of rent economies (tin, oil, gas) by investing in institutional reforms, regional planning policies and the development of their internal resources.

The election of Evo Morales in 2005, at the head of an indigenous movement driven by strong territorial demands, marked a symbolic and political turning point: the peripheries are no longer waiting for development to come from the center, they are becoming actors in their own transformation.

From now on, peripheral areas should no longer be considered as mere margins of the system, but as areas with their own potential, capable of generating alternative centralities. These new centralities, based on energy autonomy, cultural wealth, social innovation and digital

connectivity, enable us to think of space not in terms of dependence, but in terms of dynamic interdependence.

The independence of peripheral areas is not absolute, but it does reflect a strong trend towards redefining spatial power relations. By articulating local, regional and global scales, and mobilizing available human, natural and symbolic resources, these territories are paving the way for a more horizontal, less hierarchical and more inclusive geography.

2.3.5 The polycentric city model:

A polycentric city is an urban agglomeration with several functional or decision-making centers. This distinguishes it from a monocentric city, where all the main activities are concentrated around a single center. In a polycentric city, economic, social and administrative activities are distributed between several hubs, which may include secondary business districts, industrial zones, shopping centers, new towns or edge cities. This organization reduces congestion and inequalities between different parts of the city.

2.3.6 Origins and theoretical development:

The study of urban structure has long been dominated by the monocentric city model, as formulated by economists William Alonso, Edwin Mills and Richard Muth in the 1960s.This model is based on the idea of a single center concentrating all economic, political and cultural functions, around which the urban space is organized. In this logic, the value of land decreases with distance from the center, and economic activities tend to cluster in this central core to maximize the benefits of accessibility and concentration.

However, as cities have grown, transport networks have become denser and lifestyles have evolved, the limits of this monocentric model have become apparent. Rising transport costs, urban congestion, spatial imbalances and new forms of mobility have gradually challenged the idea of a single dominant center. It was against this backdrop that polycentric models emerged, proposing a more realistic and dynamic reading of urban structures.

Among the major contributions, Fujita and Ogawa (1982) stand out. In their model, the authors show that cooperation between companies and the attractiveness of clusters are inversely proportional to distance. In other words, when the concentration of activities in a single center generates costs or saturation effects, it becomes rational for certain economic functions to relocate, thus creating new secondary centers. These centers can network and share central functions at different scales.

This transition from a monocentric model to a polycentric one has also taken hold in the field of regional planning. As early as the 1990s, the European Union's European Spatial Development Perspective (ESDP) promoted polycentricity as a lever for territorial balance. The aim was to counterbalance the excessive concentration of activities around a few major metropolises, notably the European backbone, by encouraging the emergence of networks of

medium-sized towns capable of performing central functions on a regional scale. This rebalancing was also intended to reduce regional inequalities and promote more sustainable, integrated development.

In urban sociology and urban planning, polycentrism takes on a more qualitative dimension. It is no longer simply a question of describing a functional distribution of economic activities, but of understanding the city as a set of multiple centralities, each with its own identity, uses and social logic. From this perspective, the center is no longer unique, but shared. There may be several places of centrality, depending on whether we consider shops, cultural venues, administrative headquarters or social spaces. This more flexible and open reading provides a better understanding of the complexity of contemporary urban dynamics, particularly in sprawling metropolises.

2.3.7 Contemporary developments and applications:

One of the most emblematic examples of polycentrism is the Paris region. As early as 1976, master development plans incorporated this logic with the creation of new towns (CergyPontoise, Marne-la-Vallée, Évry, etc.) and suburban restructuring centers, aimed at relieving congestion in inner-city Paris by shifting certain functions to the periphery. This strategy was reinforced in the 1990s, notably with the revision of the Schéma Directeur de la Région Îlede-France (SDRIF) in 1994, which introduced new objectives**: strengthening economic competitiveness**, **better linking the Ile-de-France region with neighboring regions, and organizing a hierarchy of centralities** to improve territorial efficiency and equity.

Polycentrism has also been at the heart of numerous **international comparative studies**, notably through the analysis of regions such as **the Randstad** (Netherlands) or the RhineRuhr (Germany). These regions are characterized by **a flatter urban hierarchy**, in which several medium-sized or large towns share centrality functions. In contrast to metropolises dominated by a single center (such as Paris or Dublin), these polycentric regions promote better accessibility, a more balanced distribution of urban functions, and more distributed territorial governance. They also limit the effects of saturation and isolation, by reducing pressure on the main center.

In this sense, the polycentric city should not be seen simply as a response to the dysfunctions of the monocentric model, but as a new form of territorial structuring, more in tune with contemporary challenges: sustainable development, social inclusion, diversification of lifestyles, autonomy of peripheral areas, and economic competitiveness of regions. It corresponds to a form of evolutionary adaptation of territories, integrating physical constraints, social dynamics and governance imperatives.

2.3.8 Main characteristics of the polycentric city:

- Plurality of centralities: each center has a structuring role and a degree of functional autonomy.

- Reduction of spatial imbalances: This helps to limit the excessive concentration of activities in the historic center.

- Improved mobility: By bringing living, working and leisure areas closer together, it reduces the need to travel and eases congestion.

- Durable development: She advocates for a better management of the space and resources, and improves the quality of life at the periphery.

- Territorial integration: The polycentrism encourages a more integrated vision of metropolitan or regional urban development.

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2.3.9 Objective of peripheral polarization (secondary centrality):

2.3.9.1 Multifunctionality:

• Urban centrality implies a concentration of diverse activities, including commercial, administrative, cultural and leisure activities. These functions are often grouped together in shopping centers, administrative buildings, cultural spaces and gathering places (Commissariat général à l'égalité des territoires. (2020). Les centralités dans les territoires ruraux : Approche quantitative - Volume annexe. Observatoire des territoires.)

2.3.9.2 Social interaction:

• Public spaces play a crucial role in urban centrality by facilitating social interaction. Public squares, parks and open spaces are places where residents can meet and interact

2.3.9.3 Accessibility:

• A central element needs to be easily accessible to exercise its role as a pole of attraction. This implies good public transport links and efficient communication infrastructures.

2.3.9.4 Symbolism and representation:

• The urban center is often the symbol of the city and its liveliest point. It is the seat of organizing power and the gathering place for socio-economic and cultural activities

2.3.9.5 Temporality:

• A centrality functions on several temporalities . it must allow both rapid activities (race n displacement) and moments of stay or relaxation.

2.3.9.6 Ownership and openness :

• Users must be able to appropriate the space freely and spontaneously. This presupposes physical and symbolic openness, avoiding excessive control or psychological barriers. The

appropriation of public spaces is a key element of urban centrality, as it enables residents to feel at ease and participate fully in the life of the city.

2.3.9.7 Public spaces and quality of life:

• Public spaces are an essential element of urban centrality. They are the places where social and cultural activities take place, and they contribute to residents' quality of life. The quality of public spaces is a key factor in the appropriation of space by users (Commissariat général à l'égalité des territoires.

(Hilal, Le Bris, Toutin, & Barbier, 2020)

2.4 CHAPTER 3: Notions surrounding solution elements

2.4.1 Definition of a multifunctional center:

The concept of **the multifunctional center** has emerged gradually in response to changes in urban, economic and social forms since the XX^{e} century. Initially, traditional urban centers naturally concentrated all essential functions - commerce, administration, culture, leisure, housing - in a relatively compact space. However, urban sprawl, the specialization of spaces and the rapid growth of peripheral areas have gradually led to a functional dissociation of the territory. (Ascher, F. (2001). La société hypermoderne : Ces événements nous dépassent, feignons d'en être les organisateurs. Paris: Éditions de l'Aube.)

In the 1960s-1970s, with the rise of suburbs and the creation of new towns (particularly in Europe and North America), the need to design alternative centralities became obvious. It was in this context that the model of the multifunctional center emerged: a space deliberately designed to bring together several major urban functions in a single location, in order to ensure an active local life, reduce commuting, and stimulate the attractiveness of new poles outside the historic center (Bourdin, A. (2010). L'urbanisme d'après-crise. Paris: La Documentation française).

A **multifunctional center** is thus defined by its **plurality of uses :** it brings together commercial, cultural, administrative, economic, residential and sometimes educational or health functions, within a single perimeter or integrated project. This functional concentration promotes continuous activity throughout the day and week, reduces car dependency and contributes to **a better quality of urban life**. (European Commission. (1999). European Spatial Development Perspective (ESDP). Brussels: Office for Official Publications of the European Communities).

The recent evolution of the concept has enriched it with notions such as :

- A mix of uses and publics, to encourage social diversity.
- Modularity of spaces, enabling them to be adapted to changing needs.
- Landscape and environmental integration, with a focus on green spaces, soft mobility and energy sustainability. (Merlin, P., & Choay, F. (2010). Dictionnaire de l'urbanisme et de l'aménagement (7th ed.). Paris: PUF.)

Today, **the multifunctional center** is seen not only as an engine of peripheral urban centrality, but also as a key instrument of sustainable development and territorial resilience, in line with new approaches to the "quarter-hour city" (Carlos Moreno, 2020) that value proximity and functional density. (Offner, J.-M. (1993). Les "effets structurants" du transport: mythe politique, mystification scientifique. L'Espace géographique, 22(3), 233- 242).

Thus, the multifunctional center is no longer just a technical response to urban dispersion: it embodies a new way of thinking about the city, one that is more balanced, more accessible and more human. (Organization for Economic Cooperation and Development (OECD). (2002). Urban Policies for Polycentric Cities. Paris: OECD Publishing).

2.4.2 Characteristic of a multifunctional center :

A multifunctional center is an urban space designed to bring together different economic, social, cultural and sometimes even residential functions in a single location. It responds to the contemporary need to optimize space, limit travel and promote a functional mix. Its main characteristics are :

2.4.2.1 Functional mix

A multifunctional center brings together several types of activity: shops, offices, public services, cultural and sports facilities, and sometimes housing. This diversity makes the area more lively at different times of the day, and reduces the need for commuting. (Merlin & Choay, 2010)

2.4.2.2 Peripheral centrality

It often aims to create a new centrality outside traditional town centers, to relieve congestion and give peripheral areas functional autonomy. (Bourdin, 2010)

2.4.2.3 Optimum accessibility

The success of a multifunctional center depends on its ease of access by car, public transport and, increasingly, soft modes (pedestrians, bicycles). It is often located at the crossroads of major infrastructures. (Ascher, 2001)

2.4.2.4 Adaptability and scalability

The center must be capable of adapting to changing economic and social needs: reversibility of spaces, modularity of buildings, accommodation of new emerging uses (co-working, digital leisure, etc.) (Offner, 1993).

2.4.2.5 Creating local identity

A multifunctional center helps to forge a specific identity for its district or town, by integrating local cultural elements and quality public spaces, and by promoting citizen participation(European Commission, 1999).

2.4.2.6 Sustainability objectives

New multifunctional centers also aim to be sustainable: energy savings, ecological management of green spaces, sustainable mobility, rainwater recycling, etc. (OECD, 2002).

2.4.3 The evolution of the multifunctional center: from a contested rupture to an emerging peripheral centrality:

Historically, **multifunctional centers** - whose origins can be traced back to shopping malls - were initially seen as buildings that threatened the traditional urban fabric. In contrast to the department stores of the 19th century, which were integrated into the monocentric logic of the city, the first multi-functional centers set up on the outskirts created a real rupture. Their distance from the urban core upset the spatial balance of cities, calling into question the dominance of the city center as the main space for exchange and sociability.

This functional relocation has been the target of fierce criticism. Politicians, shopkeepers and academics have stigmatized these "tin boxes" positioned at the edge of town, accusing them of altering the urban landscape, harming small businesses, clearing the city and giving rise to neighborhoods without social life. Their closed architecture and control of flows have turned them into "non-places", incapable, according to some authors, of producing a true urbanity.

In response to these criticisms, the designers of these places are reactionary. From the 1990s onwards, a second generation of aggregates saw the light of day, going beyond mere retail functions and offering the character of the experience in full measure: integrating entertainment, cultural amenities, public services, catering but also architectural remediation such as it takes point to lean into the city's reveries. The multifunctional center then metamorphoses into a living space, taking on the air of the city center: street furniture, dramatization of routes, functional mix and attention to animation.

These changes have fuelled the controversy surrounding the term "peripheral centrality". Even if these centers are not at all associated with the prototype of the traditional urban centrality, they contribute more to the urban emergence of the periphery. These centers are becoming attractive to migration, generating movement, calling for sociability and even shaping the peri-urban setting.

Therefore, the multifunctional center, long accused of being a competitor for the old town center, has the tendency today to take its inspiration from it in order to be a new urban pole. In the context of a metropolitan and polycentric city, it appears to be a strategic tool to construct new centralities, capable of confronting contemporary challenges: sustainability, mixed use and activation of the peripheral territory.

2.5 CHAPTER 4: ANALYSIS OF EXAMPLES :

The selected examples for this study are:

- Example 01 : Bud clark Commons - portland - USA
- Example 02 : Kohinoor Square - Mumbai -India

2.5.1 Description of the Case Studies:

2.5.1.1 EXAMPLE 01 : Bud clark Commons - portland – USA

FIGURE 2 : BUD CLARK COMMONS - PORTLAND – USA

SOURCE : ARCHDAILY

A . Project Overview

Project : Bud Clark Commons

Architect : Holst Architecture

Area : 106,000 m²

Location : Portland, Oregon, United States

MACRO Environment :

Located in the city center of Portland, the BCC represents an international example of architecture by enhancing its site and providing social and economic value to the neighborhood in which it is situated.

MESO Environment:

The project is surrounded by a dense road network and a diverse urban fabric, combining historic elements (Union Station) and modern structures (post office).

MICRO Environment :

The rectangular shape of the BCC allows for perfect integration into Portland's grid layout. Its envelope is inspired by the modern style of the surrounding area.

Formal Aspects:

The formal aspects of the Bud Clark Commons project reflect both functional needs and contextual integration. Key elements include:

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Geometry and Volume:

The building features a clean, rectangular geometry that aligns with Portland's urban grid, ensuring harmonious integration into its surroundings.

Architectural Expression:

The design adopts a contemporary aesthetic, characterized by simple lines, a clear façade rhythm, and material contrasts that reflect the modern architectural language of the neighborhood.

Materiality:

The exterior materials were chosen for their durability and contextual relevance, combining concrete, glass, and metal to create a modern yet grounded appearance.

Façade Design:

The façade is designed to maximize natural light while maintaining privacy and energy efficiency. Window placement and shading elements are carefully considered to balance form and function.

Integration with the Urban Fabric:

The building's scale and massing are adapted to the surrounding context, ensuring visual continuity and accessibility at the street level.

Construction Materials :

Photovoltaic solar panels
Laser-cut steel panels

Bichromatic brick masonry

Fiberglass-framed window

Laminated safety glass

Reinforced concrete panel
Timber panels or Wooden panels

Steel cladding panels or simply Steel panels

FIGURE 3 : PROJECTED SOUTH FAÇADE

SOURCE : ARCHDAILY

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Program of the (BCC):

Fonction mère	activité	A. Fonction	Espace	Surface	ratio
Hébergement	Manger Dormir Se laver Cuisiner recevoir	Studios Chambre collectives	Chambre Kitchenette Sanitaires séjour	18512,8m²	61,7%
travail	Travailler Faire des stages Faire des consultations	Salles de travail	Bureaux du personnel Salle de consultation Salle de communication Locaux commerciaux	6227,6m²	20,7%
gestion	S'informer Stocker	réception Stockage		1943,4m²	6,5%
Détente	Manger Se rencontre Se reposer Apprendre Lire	Espace commun collectifs	Espaces collectif des pour résidents de l'abri transitionnel Jardins des résidents permanent Jardins des résidents de l'espace transitionnel Loggias collectives bibliothèque	3341,37m²	11,1%

FIGURE 4 : PROGRAM OF THE BCC

SOURCE : ARCHDAILY

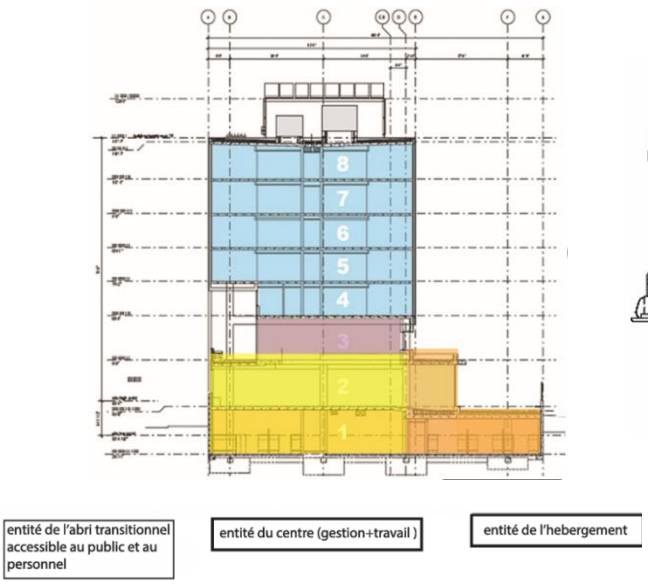

FIGURE 5 : PROJECT SECTION

SOURCE : ARCHDAILY

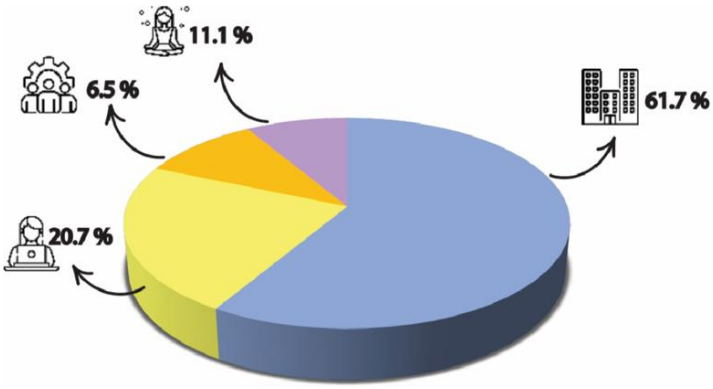

FIGURE 6 : PIE CHART SHOWING THE DISTRIBUTION OF SPACES IN THE PROJECT

SOURCE : ARCHDAILY

2.5.1.2 EXAMPLE 02: KOHINOOR SQUARE - MUMBAI -INDIA

A . Project Overview

Project: Kohinoor Square

Architect: Sandeep Shikre & Associates

Height: 203 m

Location: Mumbai, India

FIGURE 7 : KOHINOOR SQUARE - MUMBAI –INDIA

SOURCE : ARCHDAILY

MACRO Environment :

This project is located in Dadar West, Mumbai, India. It aims to address the increasing demand for housing and urban infrastructure in India.

MESO Environment :

The Kohinoor Square project is located in Dadar West, a central district of Mumbai. It is situated within a complex and dynamic meso-environment, influenced by various factors at the scale of the city of Mumbai and its metropolitan area.

MICRO Environment :

The Kohinoor Square project is located at the intersection of N.C. Kelkar Marg and R.G. Gadkari Chowk in Dadar West, Mumbai. This location is easily accessible due to the presence of two railway stations and is well-known for its bustling markets.

Geometry and Volume:

Kohinoor Square presents a bold and iconic vertical form, with a sleek, tapered profile that distinguishes it within the Mumbai skyline. Its height and proportions reflect the ambition of high-density, mixed-use urban development.

Architectural Expression:

The tower embodies a contemporary and international design language, with an emphasis on elegance and modernity. The building's silhouette, marked by clean lines and a dynamic vertical thrust, conveys a sense of prestige and innovation.

Materiality:

High-performance glass and steel dominate the façade, offering both aesthetic refinement and environmental responsiveness. The materials enhance the building's modern image while contributing to natural light optimization and energy efficiency.

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Façade Design:

The façade features a curtain wall system with reflective glass panels, designed to reduce solar heat gain while offering panoramic views of the city. The treatment of the façade varies subtly along the height to add visual interest and break the monotony of verticality.

Integration with the Urban Fabric:

Despite its vertical dominance, Kohinoor Square engages with the city at the pedestrian level through a carefully designed podium and public plaza, integrating retail and civic functions that activate the surrounding streetscape.

Construction Materials:

They were selected for their durability, strength, and aesthetics.

- Structure: Reinforced concrete and steel
- Building envelope: Glass and aluminum
- Interior finishes: Marble, granite, wood

Figure 8 : exterior View of the building

SOURCE : ARCHDAILY

FIGURE 9 : INTERIOR VIEW OF THE BUILDING

SOURCE : ARCHDAILY

FIGURE 10 : EXTERIOR VIEW OF THE GLASS- CLAD SKYSCRAPER IN MUMBAI

SOURCE : ARCHDAILY

Program of the KOHINOOR SQUARE:

Fonction	Activites	Espace
Travail 26%	Lire S'informer Exposer Se réunir travailler	Office Bureau
Détente 14%	Faire sport Commerce Se détendre Se reposer	RETAIL STORE COMMERCE FOOD COURT HALL

Gestion 34%	Se garer S'orienter Accueillir Orienter Entretenir Nettoyer Gérer	Parking Reception Locaux techniquebureaux
Hébergement 26%	Dormir Se laver Manger Recevoir cuisiner	Appartements Hôtel

FIGURE 11 : PROGRAM OF THE KOHINOOR SQUARE

SOURCE : ARCHDAILY

2.THE THEMATIC SECTION

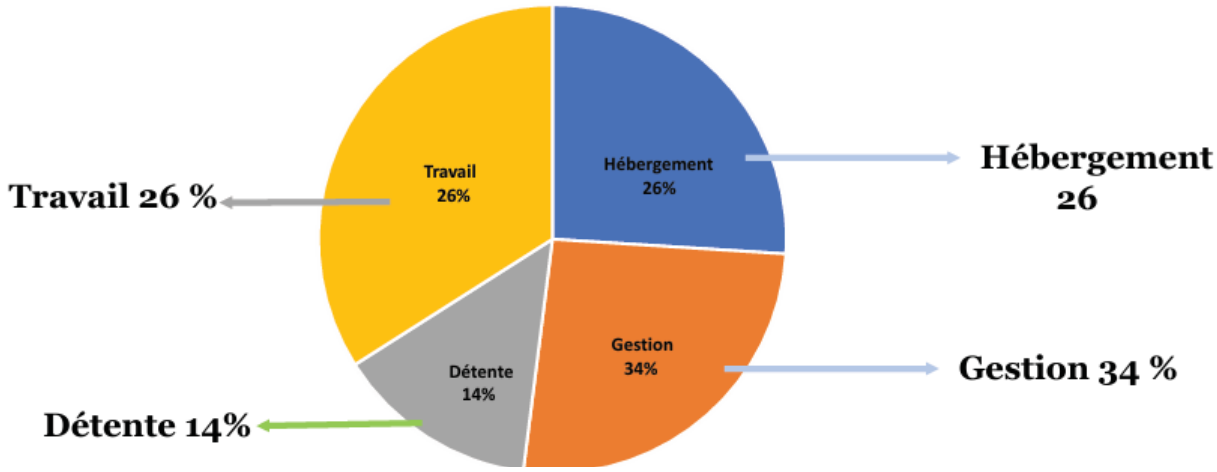


FIGURE 12 : DIAGRAM SHOWING THE PROJECT PROGRAM

Source :ARCHDAILY

Positive Aspects:

- Separate entrances for all vertical circulation systems.
- Environmentally friendly technologies used, such as low-flow faucets, dual-flush toilets, greywater systems, stormwater management systems, and rainwater harvesting.
- The central core provides easy access to interior spaces.
- Double-skin façade system helps conserve energy, allows natural light into the building, and offers excellent interior views.
- Multi-level parking, including above-ground parking.

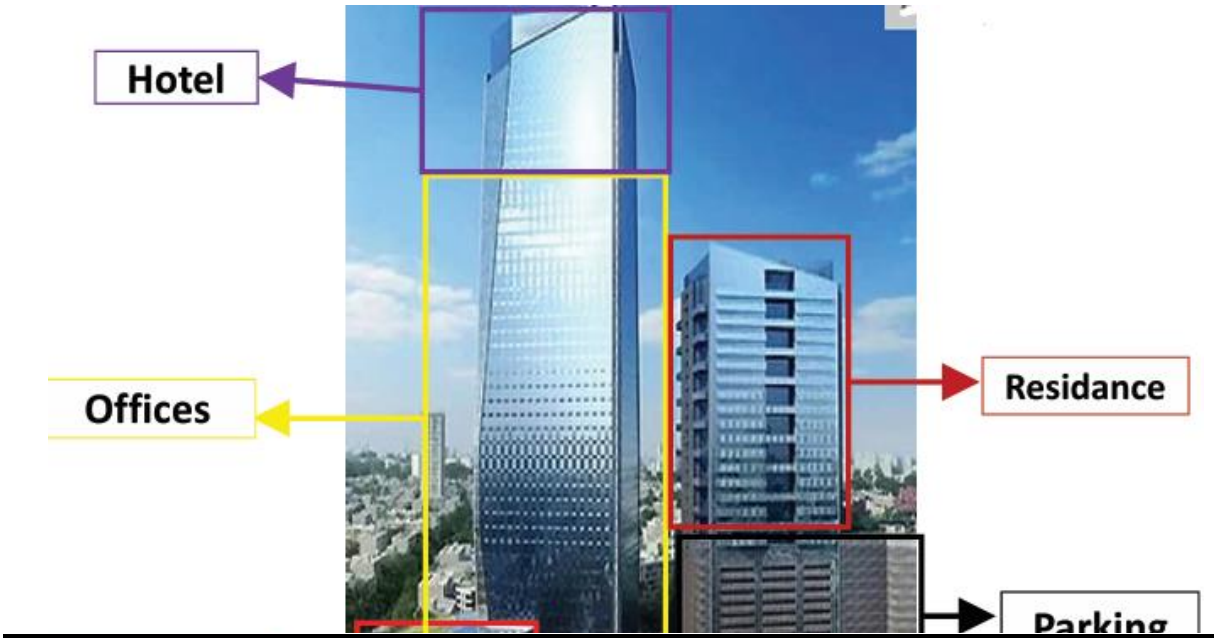


Figure 13 : pie chart showing the distribution of spaces in the project

Source :

3- THE ANALYTICAL SECTION

3.1 CHAPITRE 01 : URBAINE ÉVOLUTION OF TERRITORY

3.1.1 Présentation du territoire de Blida :

The territory of Blida is bounded to the south by the major mountain range of the Blidean Atlas, as well as by the Wilaya of Médéa and the commune of Chréa.

To the north, it is bordered by the communes of Oued El Alleug and Béni-Tamou, to the west by Oued Chiffa, and to the east by the three communes of Boufarik, Guerrouaou and Soumàa.

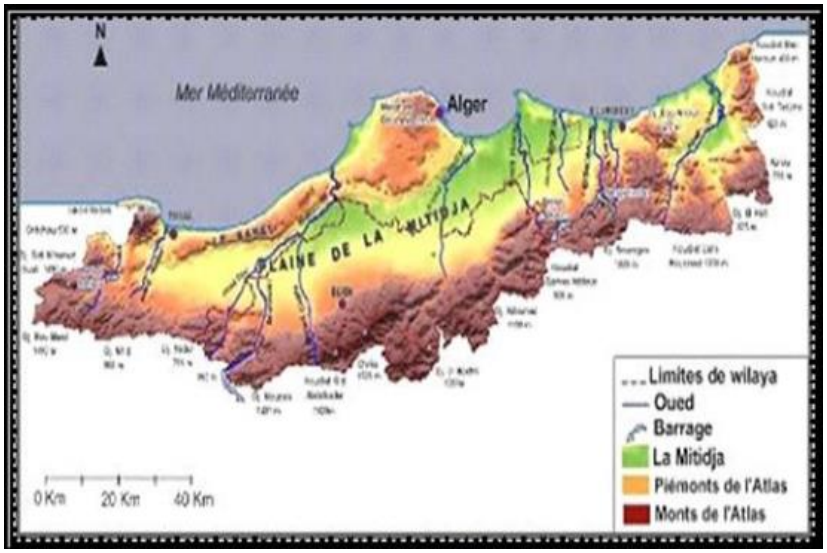


FIGURE 14 : TERRITORIAL BOUNDARIES

Source: memoireonline.com

3.1.2 Cycles of land use :

3.1.2.1 Cycle 1:

3.1.2.1.1 FIRST PHASE:

It consists of the main ridge pathway, representing the safest route. At that time, humans relied solely on hunting and gathering to meet their needs. This path, used without requiring any development, avoids watercourses as well as the descents and ascents of valley slopes. It is the oldest route and represents the first structure built by humans in the territory.

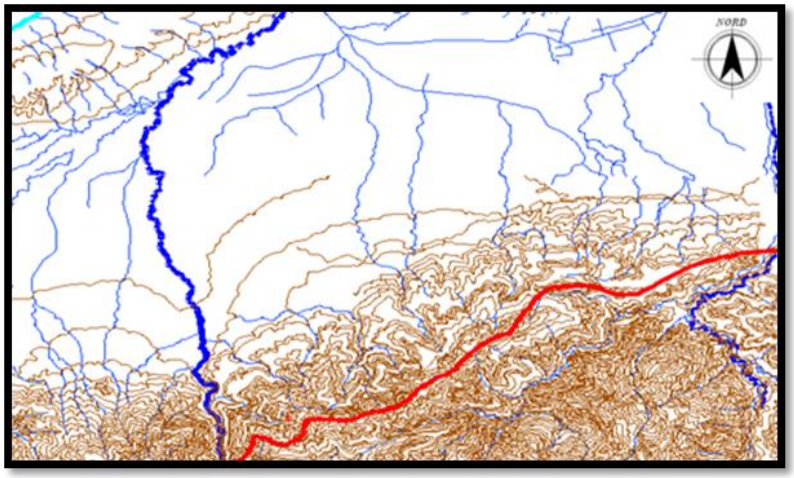


FIGURE 15 : RIDGE PATH MAP

Source: Master's Thesis

3.1.2.1.2 SECOND PHASE:

This refers to the secondary ridge, where the first settlements began to appear on high and medium-elevation promontories. Humans started to settle there without needing to cross watercourses, and the first activities—particularly agricultural ones—began to emerge. In our case, one secondary ridge descends toward Blida, while another extends toward Bouarfa.

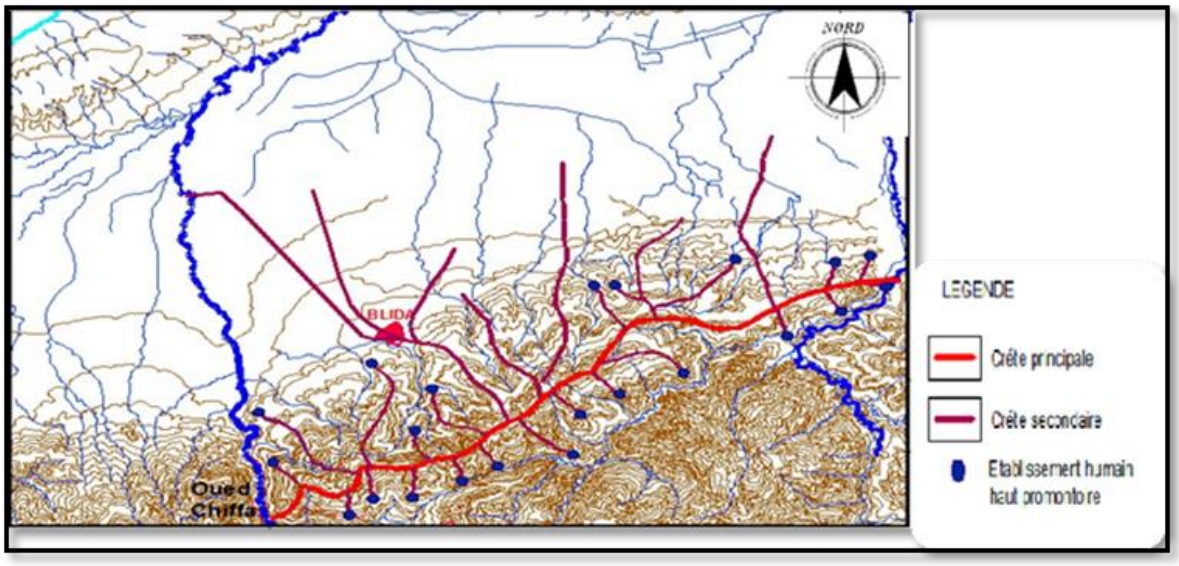


FIGURE 16 : MAP OF HUMAN SETTLEMENTS ON HIGH PROMONTORIES

Source: Master's Thesis

3.1.2.1.3 THE THIRD PHASE:

The formation of settlements is accompanied by their interconnection through local counter-ridge pathways. This network leads to a duplication of the settlement band, indicating a gradual occupation of the territory toward the valley floor. It is within this context that the proto-urban core emerges.

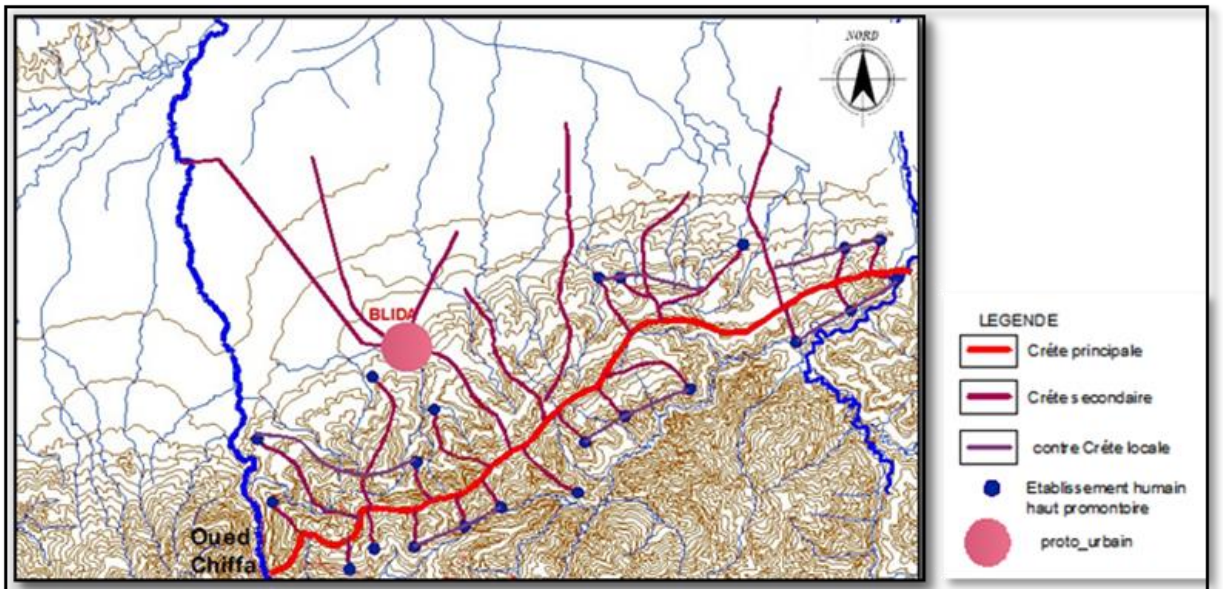


FIGURE 17 : MAP SHOWING THE EMERGENCE OF THE LOCAL COUNTER-RIDGE PATH

Source: Master's Thesis

3.1.2.1.4 THE FOURTH PHASE:

The proto-urban core gradually evolves into a true urban nucleus. It becomes connected to other proto-urban centers through a continuous counter-ridge path linking several towns such as Soumaa, Bouinane, Mouzaïa, Bourkika, etc., thus forming a settlement strip with a commercial vocation, known as the "market belt." A similar pattern emerges along the coastal cities, structured around another continuous ridge path.

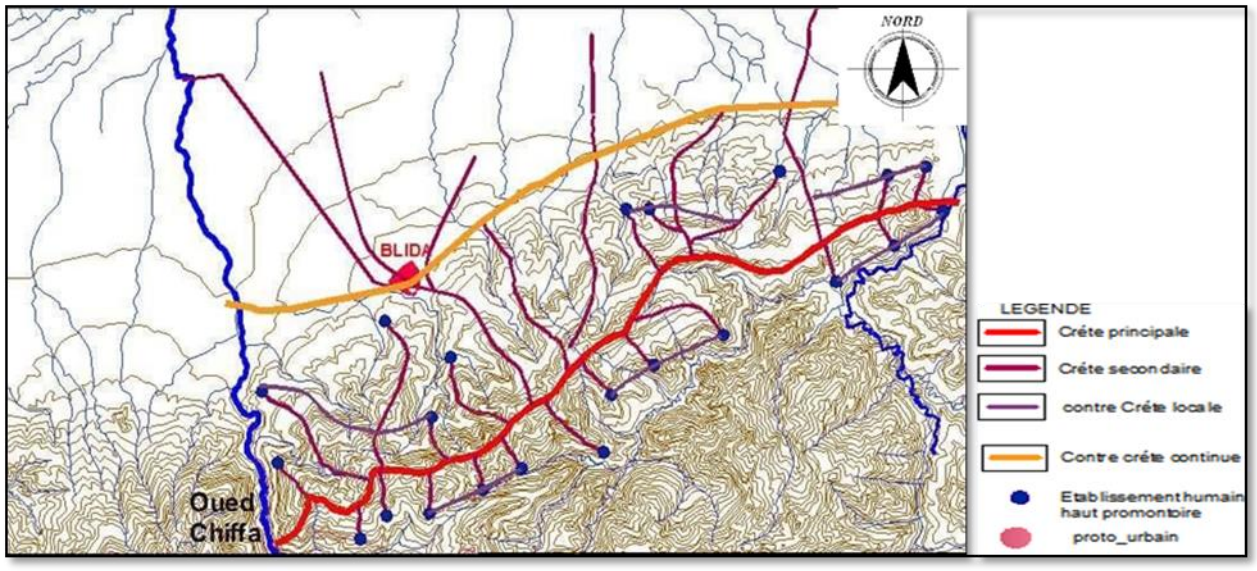


Figure 18 : Map of the Formation of the Continuous Counter-Ridge
Source: Master's Thesis

The convergence of these two territorial systems gives rise to a new core: Boufarik, which then emerges as a strategic crossroads — the market of markets.

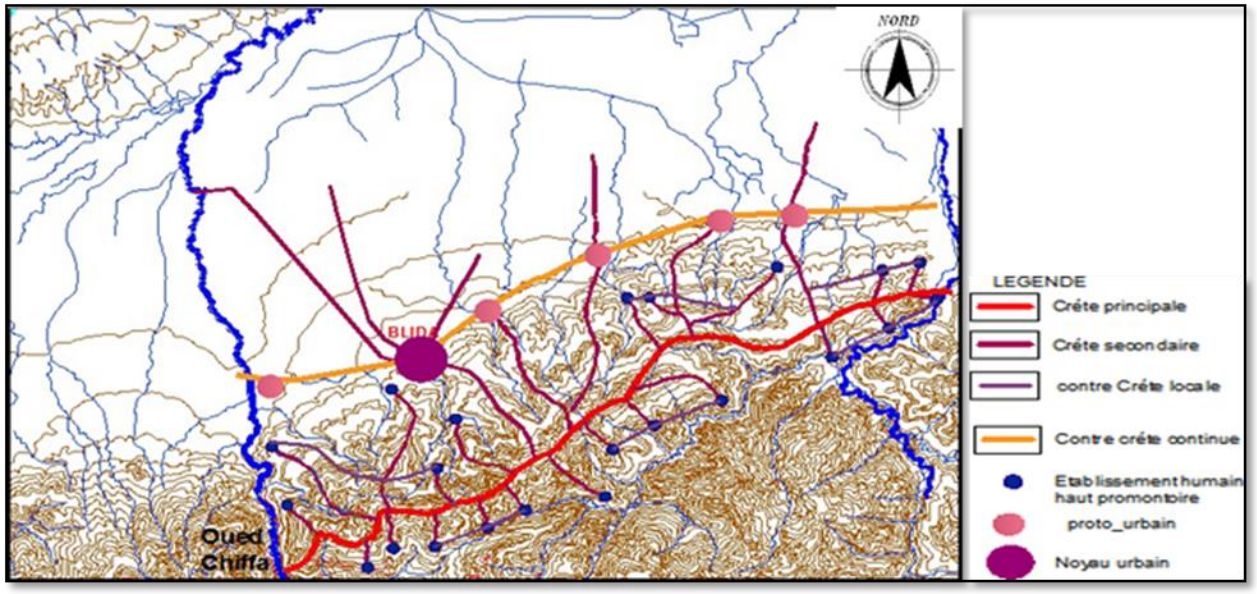


FIGURE 19 : MAP SHOWING THE FORMATION OF AN URBAN CORE

Source: Master's Thesis

3.1.2.2 Cycle 2:

3.1.2.2.1 PHASE: SETTLEMENT ON THE LOWER PROMONTORIES:

The occupation of the plain continues with the establishment of settlements on the lower promontories, notably in Boufarik, Oued El Alleug, and Attatba.

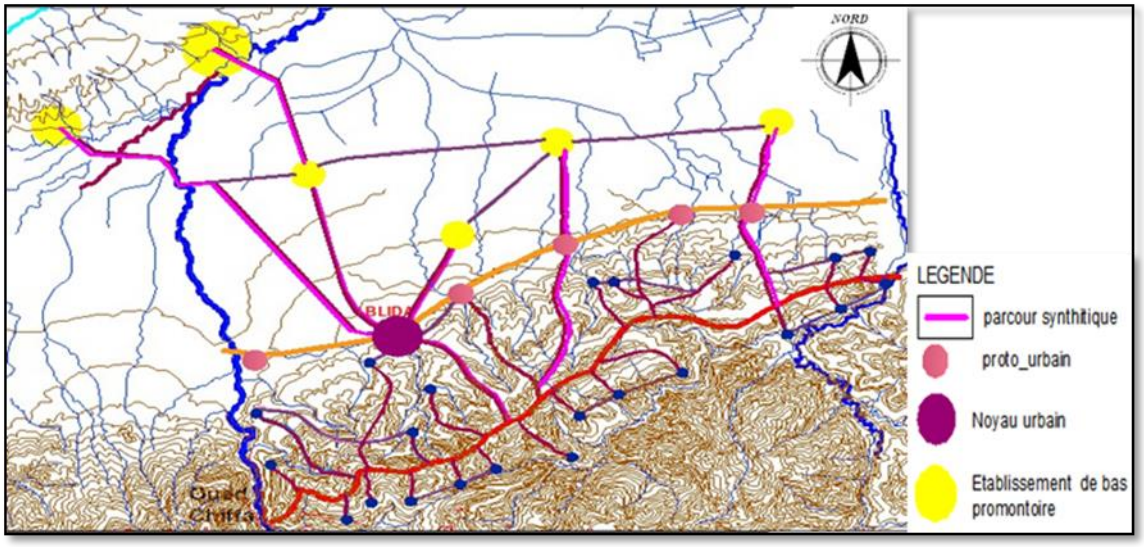


FIGURE 20 : MAP SHOWING THE FORMATION OF SETTLEMENTS ON THE LOWER PROMONTORIES

Source: Master's Thesis

3.1.2.2.2 UPWARD EXPANSION PHASE:

This phase marks the progression from the plain toward the mountains along the waterways.

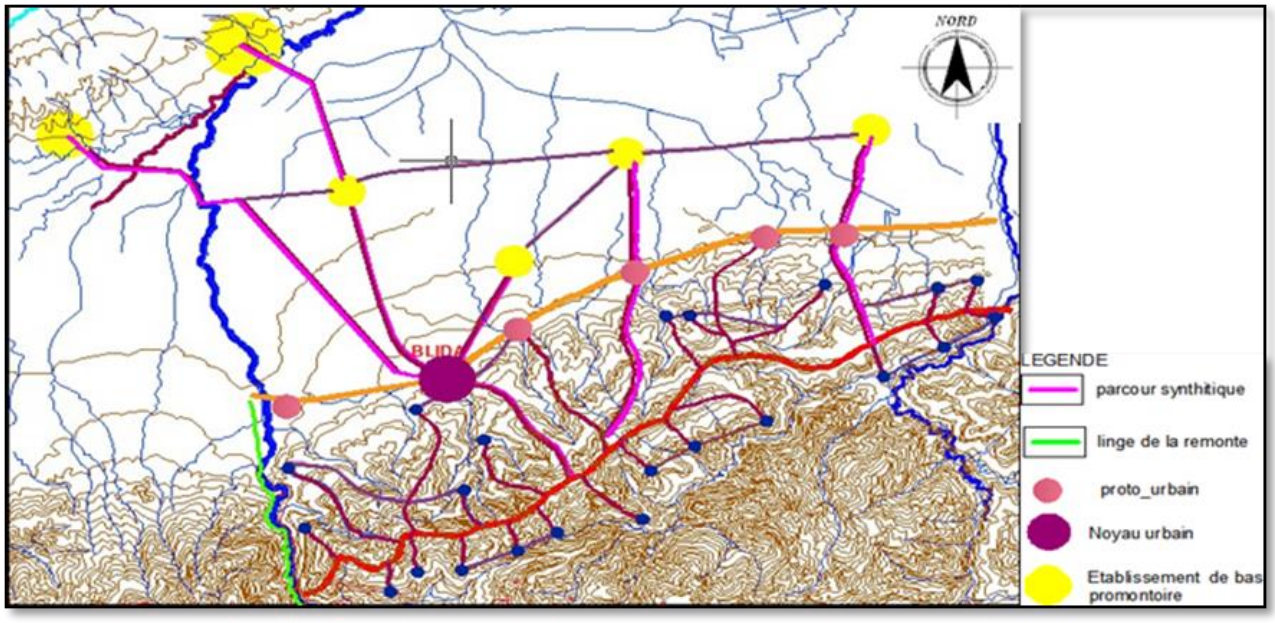


FIGURE 21 : MAP OF THE UPWARD EXPANSION TOWARDS THE MOUNTAIN

Source: Master's Thesis

3.1.2.3 SYNTHESIS:

The historical analysis of the territory reveals a pattern of gradual occupation, structured around ridge lines and valleys. This dynamic led to the emergence of interconnected agglomerations, evolving from proto-urban cores into genuine urban centers. Ridge and counter-ridge paths, along with watercourses, played a crucial role in guiding and intensifying territorial development. The convergence of these systems facilitated the rise of major centralities such as Boufarik, establishing the Mitidja plain as a strategic area for economic exchange and urban growth.

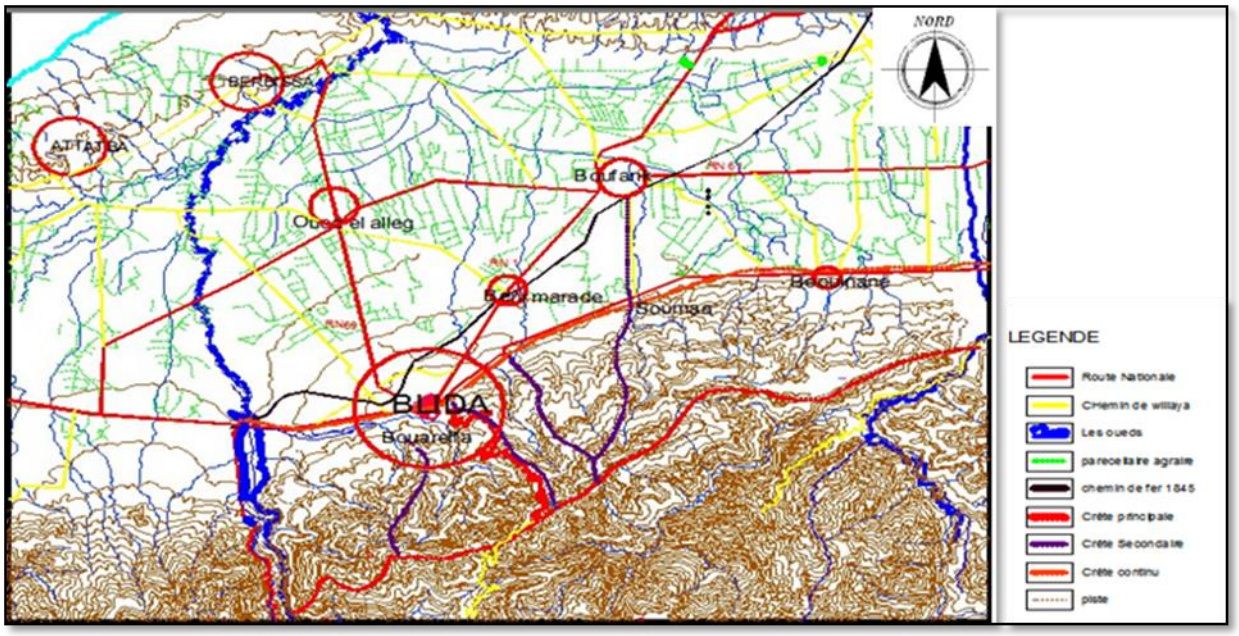


FIGURE 22 : SYNTHESIS MAP

Source: Master's Thesis

3.2 CHAPTER 02: INTRODUCTION TO THE CITY OF BLIDA

3.2.1 Location :

Geographical location: In the north of Algeria 50 km from the capital, Algiers

Area: 1,478.68 km²

Administrative boundaries:

- **North:** Tipaza and Algiers
- **South:** Médéa
- **East:** Boumerdes and Bouira
- **West:** Ain Defla
- **Population:** 947,278 inhabitants

Figure 23 : Location map of the city

SOURCE: GOOGLE IMAGE

3.2.2 Climatic Data:

The climate of Blida is characterized mainly by two seasons:

- A hot and dry season extending from May to September, with an average temperature of 35°C.
- A rainy and cold season lasting from late September to March, with 50 to 70 rainy days and an average annual precipitation ranging from 500 to 700 mm. The average temperature during this period is around 12°C.

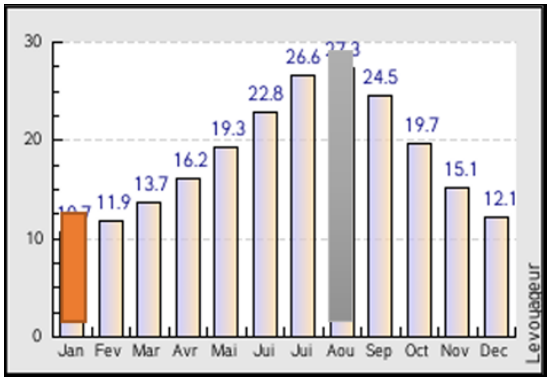


FIGURE 25 : DIAGRAM SHOWING THE CLIMATE OF BLIDA

SOURCE:GOOGLE IMAGE

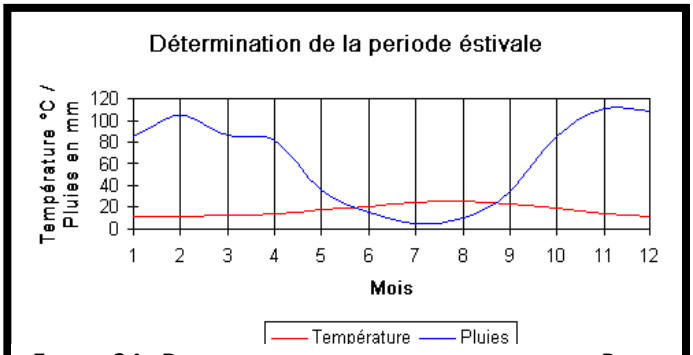


FIGURE 24 : DIAGRAM SHOWING THE TEMPERATURE OF BLIDA

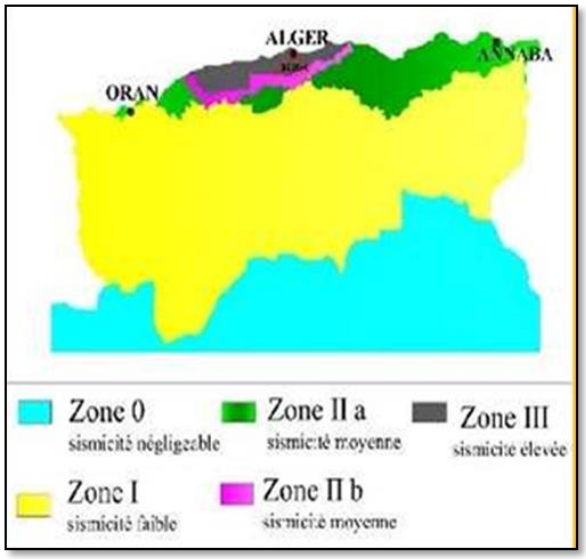
SOURCE:GOOGLE IMAGE

3.1.3 Seismic data:

The wilaya of Blida is classified between zone III and zone II b according to RPA 99/version 2003. According to the new seismic classification, most of the municipality of Blida is located in zone BII. Therefore, it is essential to comply with the current regulations concerning seismic construction standards for the municipality of Blida."

FIGURE 26 : MAP ILLUSTRATING THE SEISMIC ZONES

SOURCE:GOOGLE IMAGE



3.1.4 Morphological data:

- *The city of Blida is situated on sloped terrain of approximately 3% from south to north, located between the foothills and the beginning of the plain.*
- *This slope allowed for efficient water drainage. The foothills to the south, the plain to the north, and the oued (river) to the southwest are natural obstacles to the city's expansion.*

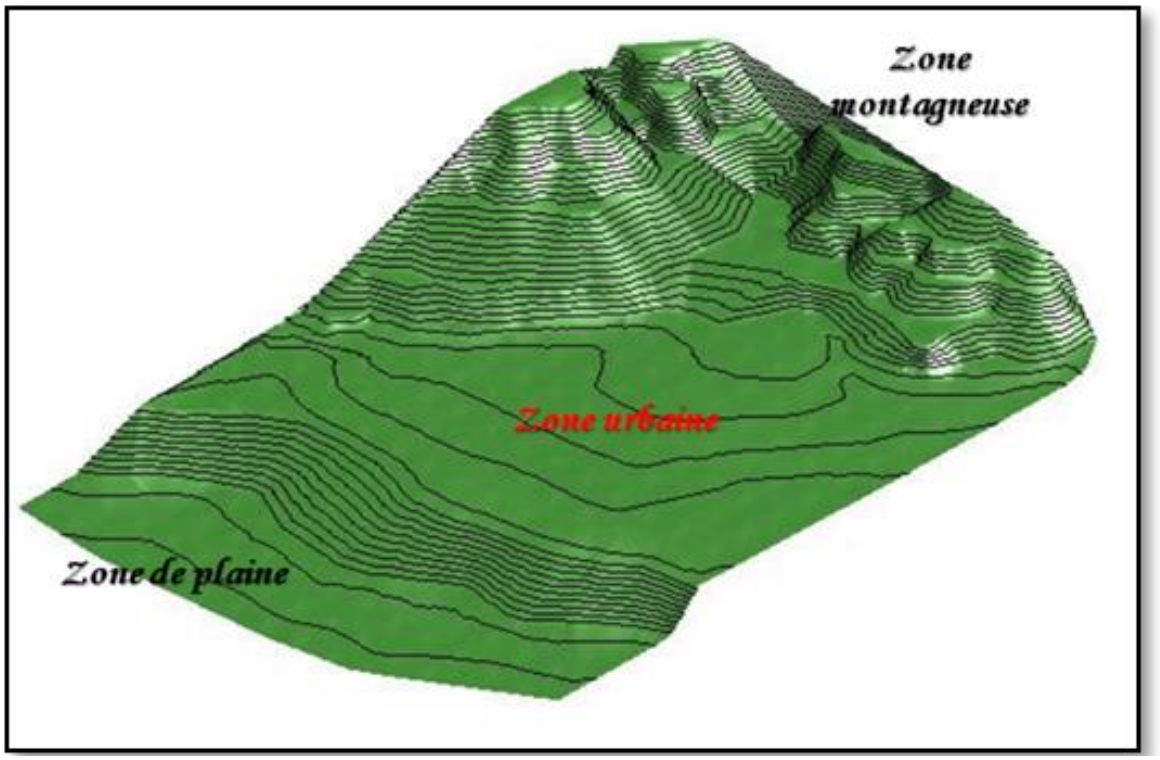


FIGURE 27 : MORPHOLOGICAL DIAGRAM OF BLIDA.

SOURCE:GOOGLE IMAGE

3.3 CHAPTER03 : History and urban development of the city of Blida

3.3.1 Diachronic reading of the city of blida:

the formation and growth of any city result from the fulfillment of complex political, economic, and demographic factors. Therefore, it is essential to approach the city from its ground zero through historical evolution. This approach aims to gain the legitimacy to intervene in an unfamiliar site, to identify and extract the elements of permanence through value judgments, and ultimately to establish a permanence plan.

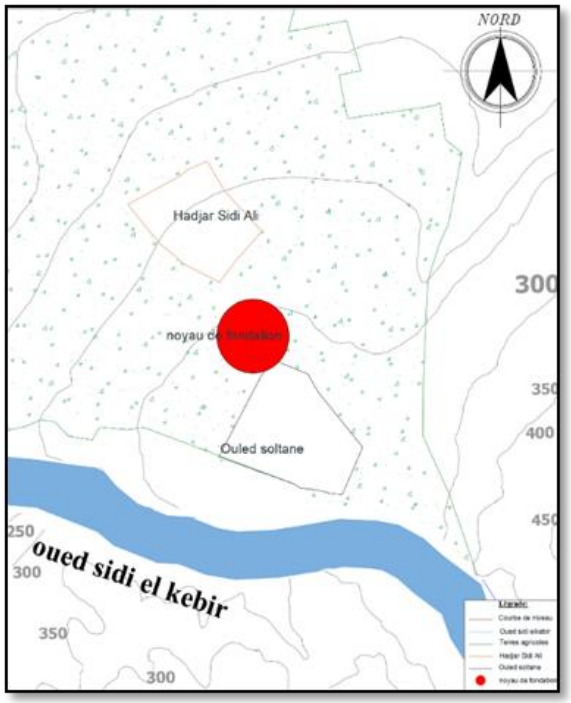


FIGURE 28 : CITY IMPLANTATION MAP OF BLIDA

SOURCE: **MASTER'S THESIS**

From 1519 to 1535:

- The city was founded by a group of mountain dwellers who settled near a watercourse.
- Two small villages formed the territory: Ouled Soltane and Hadjar Sidi Ali.
- The mountain dwellers' homes were grouped into hamlets located on the valley slopes, with Ouled Soltane to the south and Hadjar Sidi Ali to the north.
- Around 1519, the marabout **Sidi Ahmed El Kebir** settled at the confluence of the **Oued Taberkachent** (a stream now called **Oued Sidi El Kebir**).

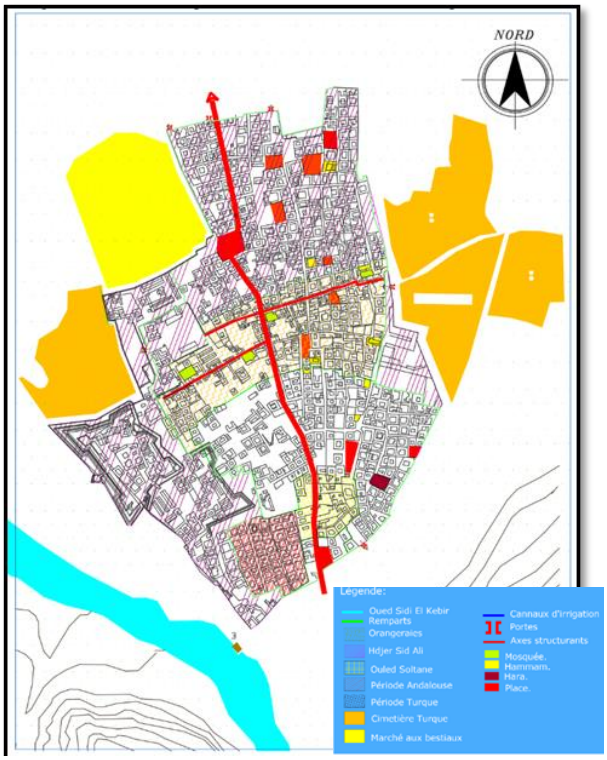


FIGURE 29 : HISTORICAL MAP DIAGRAM OF BLIDA

SOURCE: **MASTER'S THESIS**

3- THE ANALYTICAL SECTION

1535–1750:

- Blida was established by a group originating from the two hamlet clusters.
- A system of **seguias** (irrigation canals) and **basins** was constructed from south to north, giving the city of Blida its characteristic **fan-shaped layout**.
- The **Sidi El Kebir Mosque** was built.
- A **casbah** was constructed in the southwest, highlighting the typical features of an Islamic city.

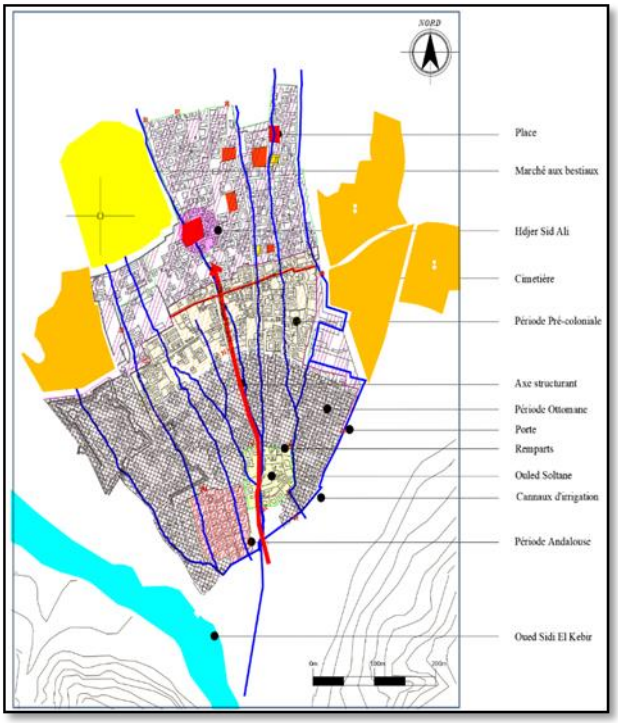


FIGURE 30 : HISTORICAL MAP DIAGRAM OF BLIDA

SOURCE: **MASTER'S THESIS**

1750–1836 :

- The city was protected by **rammed-earth walls** (pisé) measuring 3 to 4 meters in height, along with blind walls.
- The enclosure was pierced by six gates: **Bab Errahba**, **Bab Dzair**, **Bab Zaouia**, **Bab Khouikha**, and **Bab Elkbour.**
- Inside the walls, the urban fabric was dense, consisting of small houses organized around inner courtyards, forming a **tree-like layout** (arborescent pattern).
- The **El Ter Mosque** was built, along with several administrative buildings, including the **Hokoma** (governor's residence).
- A **citadel** was constructed in the southwest of the city.

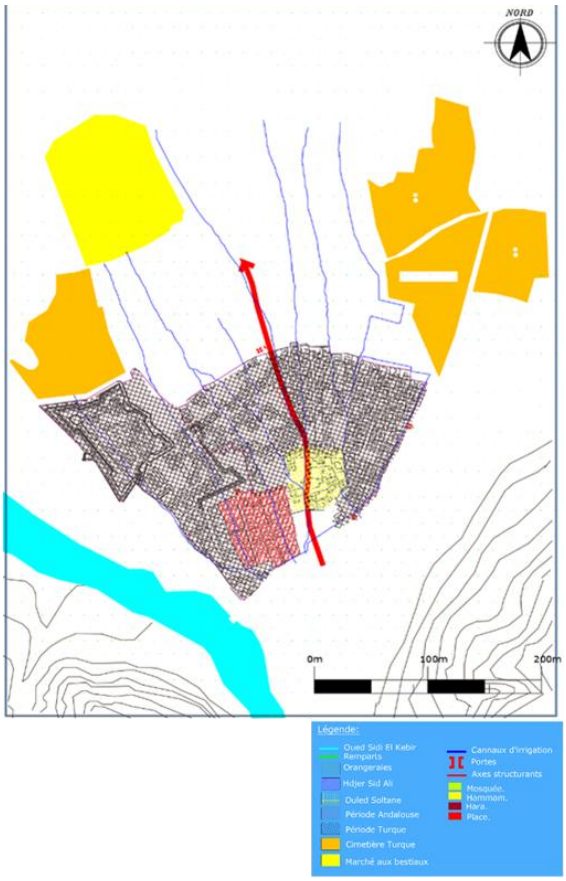


FIGURE 31 : HISTORICAL MAP DIAGRAM OF BLIDA

SOURCE: **MASTER'S THESIS**

In 1842:

- In 1830, the French army landed, followed by urban interventions and military installations.
- In 1836, military camps were established (Dalmatie, Beni Mered, Chéffa).
Figure 31 : Historical map diagram of blida
- In 1838, two fortified camps were built:
- the **Upper Camp (Joinville)** and the **Lower Camp (Montpensier).**

Between 1916 and 1935:

- The city continued to expand rapidly toward the north, along the irrigation canals dating back to the Ottoman era, which played a major role in Blida's urbanization.
- In 1926, the city ramparts were demolished and replaced by boulevards surrounding the historic city center (intra-muros).
- In 1932, the **Joinville Military Hospital** was built, and urban development began to spread toward the lower slopes of the mountain and toward **Dalmatie**, in the east.

Between 1930 and 1962:

- During this period, the city experienced very rapid growth along its main axes. Urban development followed the paths of the former **seguias**, which were transformed into secondary access roads through densification.
- To the **northwest**, the **train station district** emerged, composed of small buildings and industrial workshops.
- To the **north**, the **Zaouia Sidi Madjbour** neighborhood developed as a residential area for native Blidéens.
- The most intense waves of urban expansion occurred during the **War of Independence**, especially between **1958 and 1960**. During this time, **collective housing** units were built, along with **subdivisions** initiated by the state and private developers.

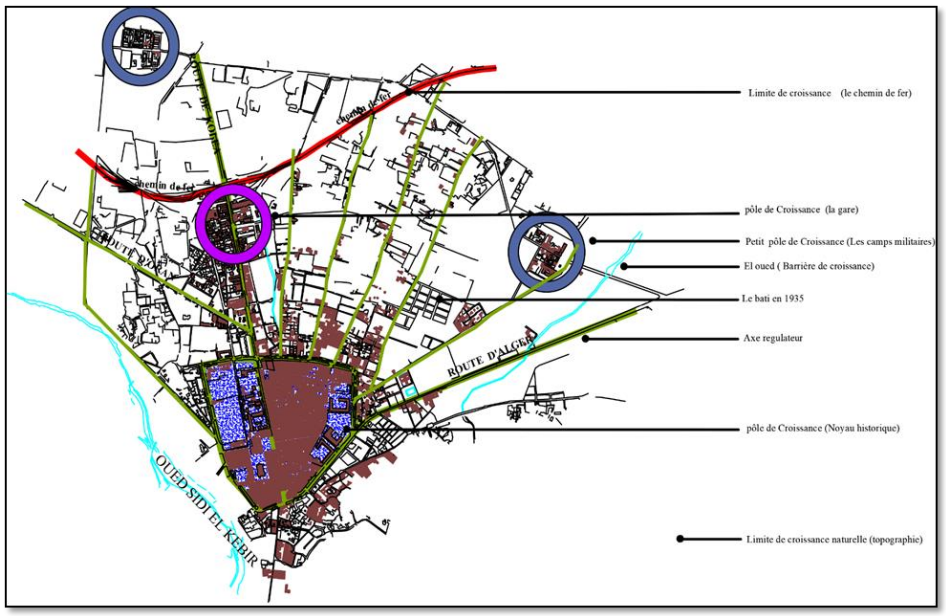


FIGURE 32 : HISTORICAL MAP DIAGRAM OF BLIDA

SOURCE: **MASTER'S THESIS**

Between 1962 and 1980:

- Several urban development actions were carried out in the historic city center, such as the **replacement of the old church by the El Kaouthar Mosque**, the **demolition of military installations**, and the **construction of new mixed-use facilities and housing projects**.
- In 1975, large-scale **collective housing operations** were launched, notably the **Z.U.H.N. (Zones Urbaines d'Habitat Nouvel)** projects.

From 1987 onward:

- An **irregular and rapid urban growth** was observed, marked by its speed and scale. This led to the **implementation of urban planning and development instruments**, including **PDAU, POS, PUD, PUM, and PCD**.

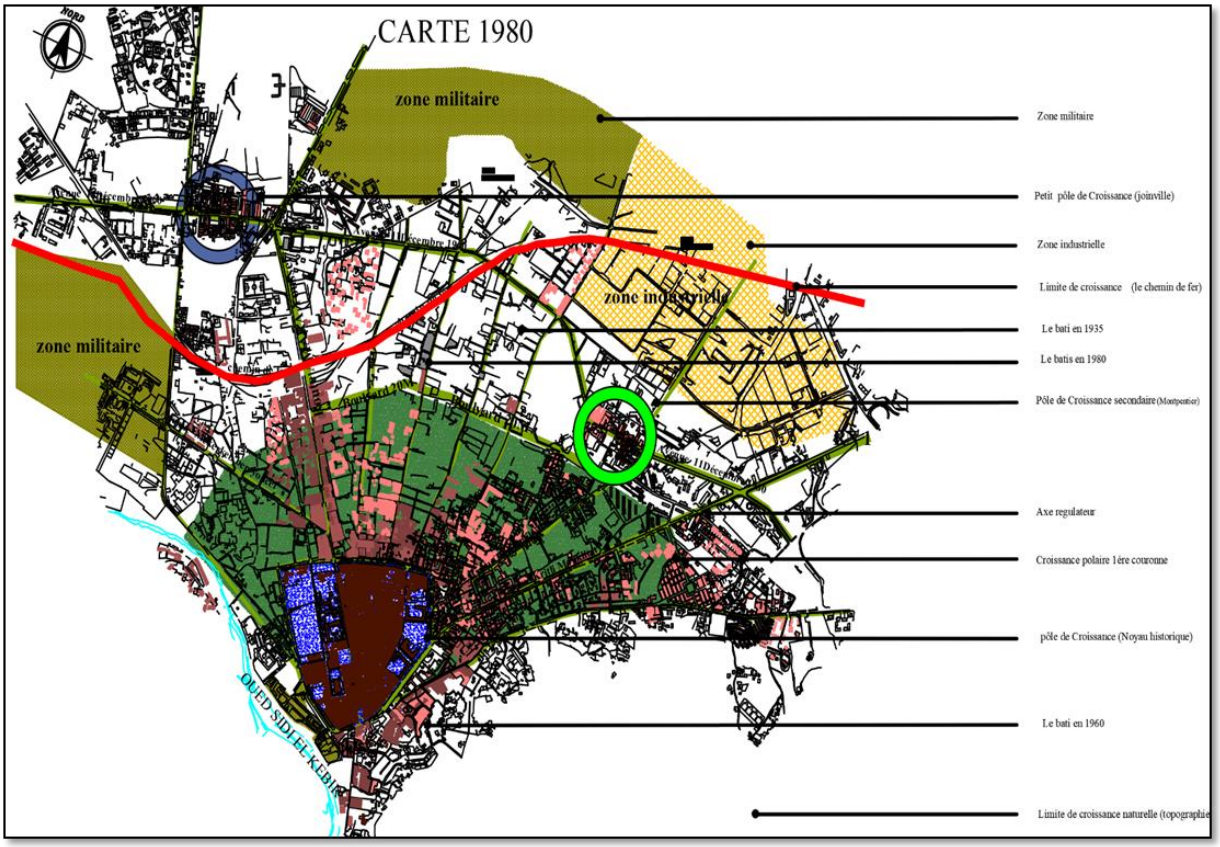


FIGURE 33 : HISTORICAL MAP DIAGRAM OF BLIDA 1980

SOURCE: **MASTER'S THESIS**

SYNTHESIS:

- The presence of **historic territorial routes** initially guided urban expansion—first toward **Koléa (north)** and later toward **Algiers**.
- The **railway line** initially acted as a **barrier to growth**, but the **train station** later became a **growth pole**, fostering the development of the **station district**.
- The so-called **"military," "industrial," and "agricultural" zones** acted as **quasi-immovable obstacles** to the city's expansion (both **artificial and natural barriers**), which forced Blida to extend **primarily in the north-eastern direction**.
- The **Joinville and Montpensier camps** became **urban satellites** contributing to the growth of Blida.
- The **urban perimeter** expanded by following the **historic irrigation paths (seguias)**, which evolved into development routes at the urban scale.
- Two **main axes** structure the city, directing growth toward the **northwest and northeast**, and connect the **four main gates** of the city. These two axes intersect at the **Place d'Armes**, originally built to gather military troops, which has now become a central space for **commercial and administrative activities**.
- **Public squares and markets** serve as **connecting nodes** between the main axes and act as **activity hubs** within the urban fabric.

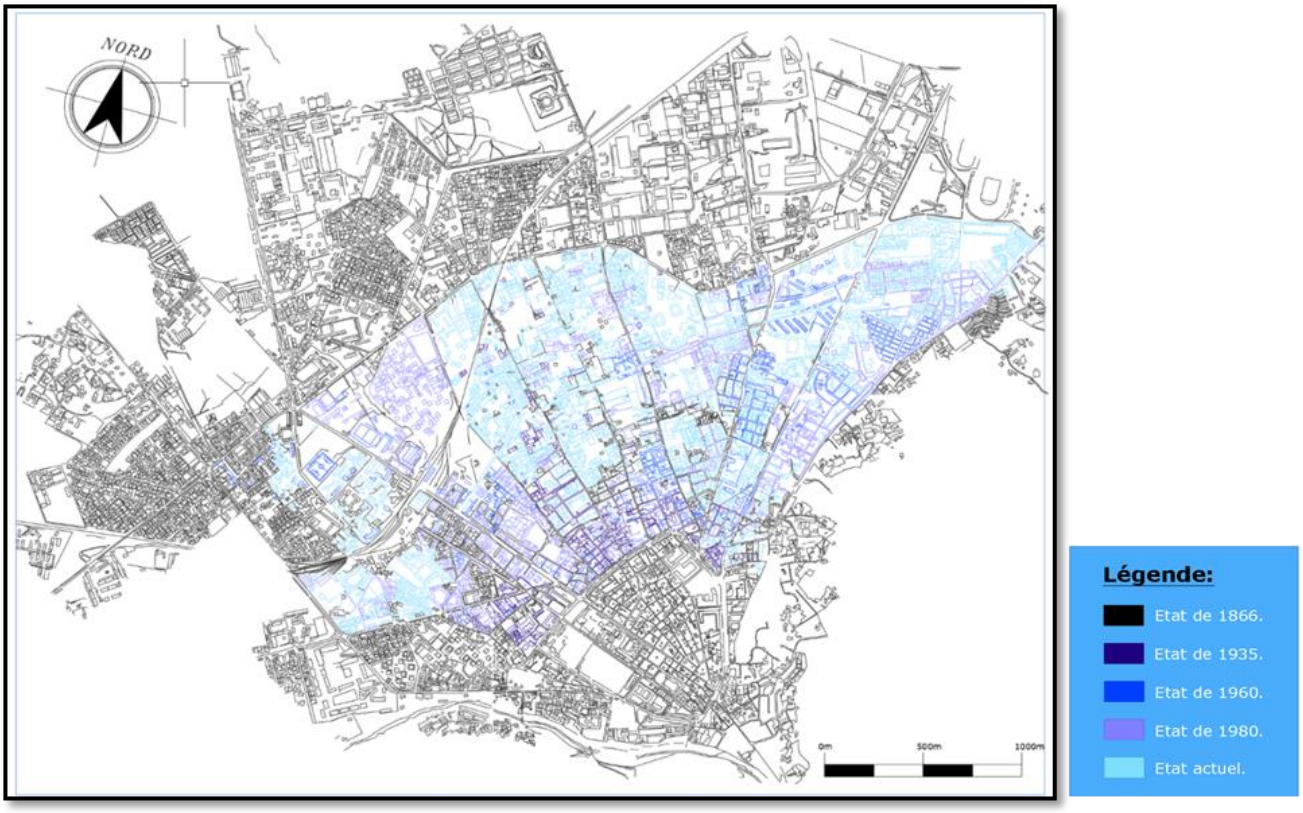


FIGURE 34 : SUMMARY MAP

SOURCE: **MASTER'S THESIS**

3.3.2 Synchronic reading of the city:

3.3.2.1 Structure of Permanencies:

These are the various isolated buildings or monumental structures of historical significance that serve as landmarks and/or focal points with public or private functional roles within the urban structure.

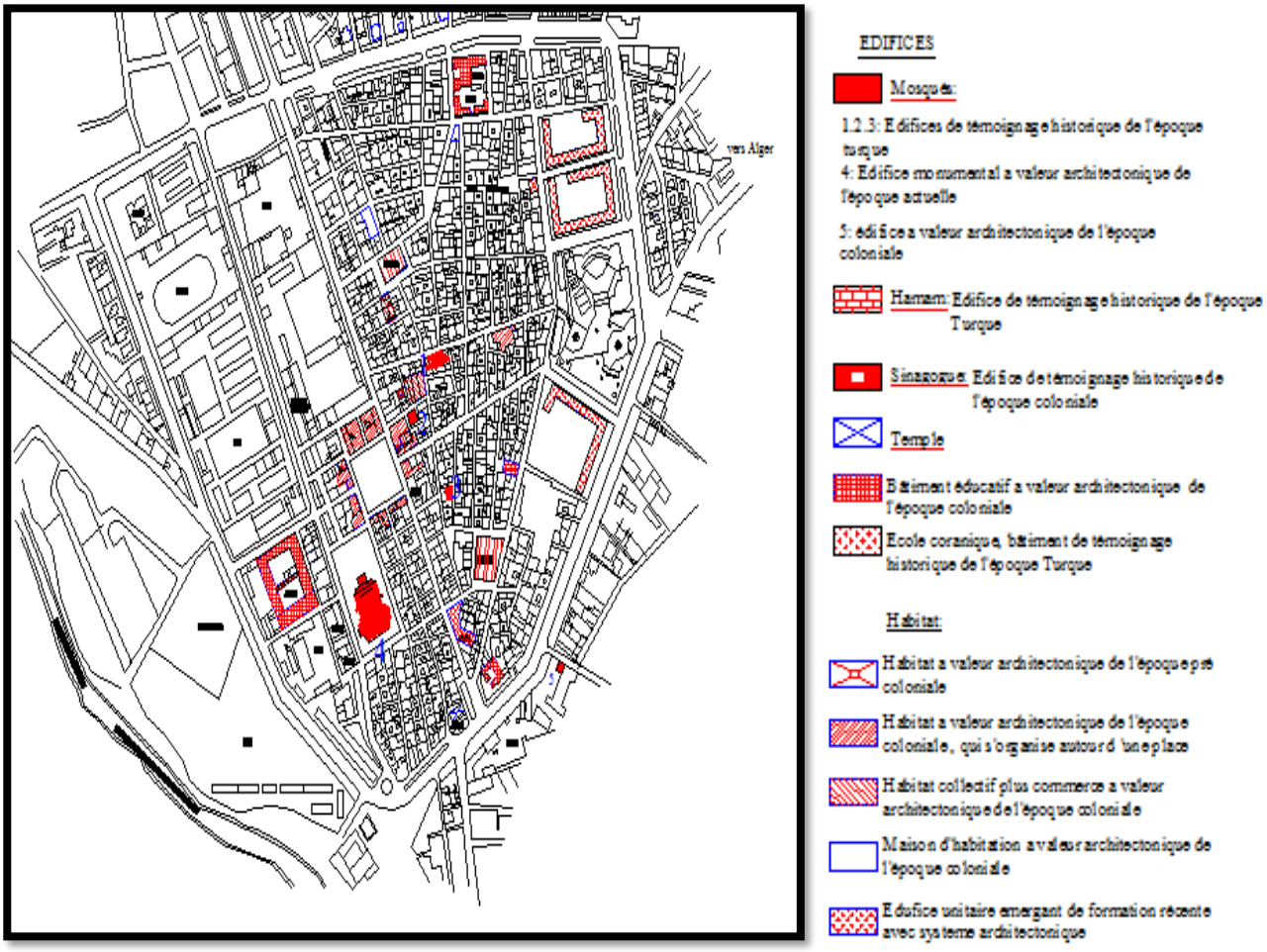


FIGURE 35 : MAP SHOWING THE ELEMENTS OF PERMANENCY IN THE CITY OF BLIDA

SOURCE: **MASTER'S THESIS**

3.3.2.2 Road Network Structure:

The city of Blida is a crossroads of several major routes. It ensures the **East-West** and **North-South** connections. These axes have significantly contributed to the city's formation process:

1. **Main historical and generative axes:**
   These are the primary roads that generated the city, such as **National Road 1 (RN1) Blida–Algiers** and **National Road 69 (RN69) Blida–Koléa**.
2. **Secondary historical and generative axes:**
   These are roads that played a role in transforming the city, primarily based on the **layout of irrigation canals (the "seguias")**.
3. **Former limiting axes turned into generative ones:**
   These roads initially acted as growth boundaries but later became generative axes themselves, such as **Mohamed Boudiaf Boulevard** and **11 December 1960 Avenue**.
4. **Secondary axes:**
   These roads reinforce the existing road network, either by providing **transversal or broken connections**, and sometimes they end in **cul-de-sacs**.

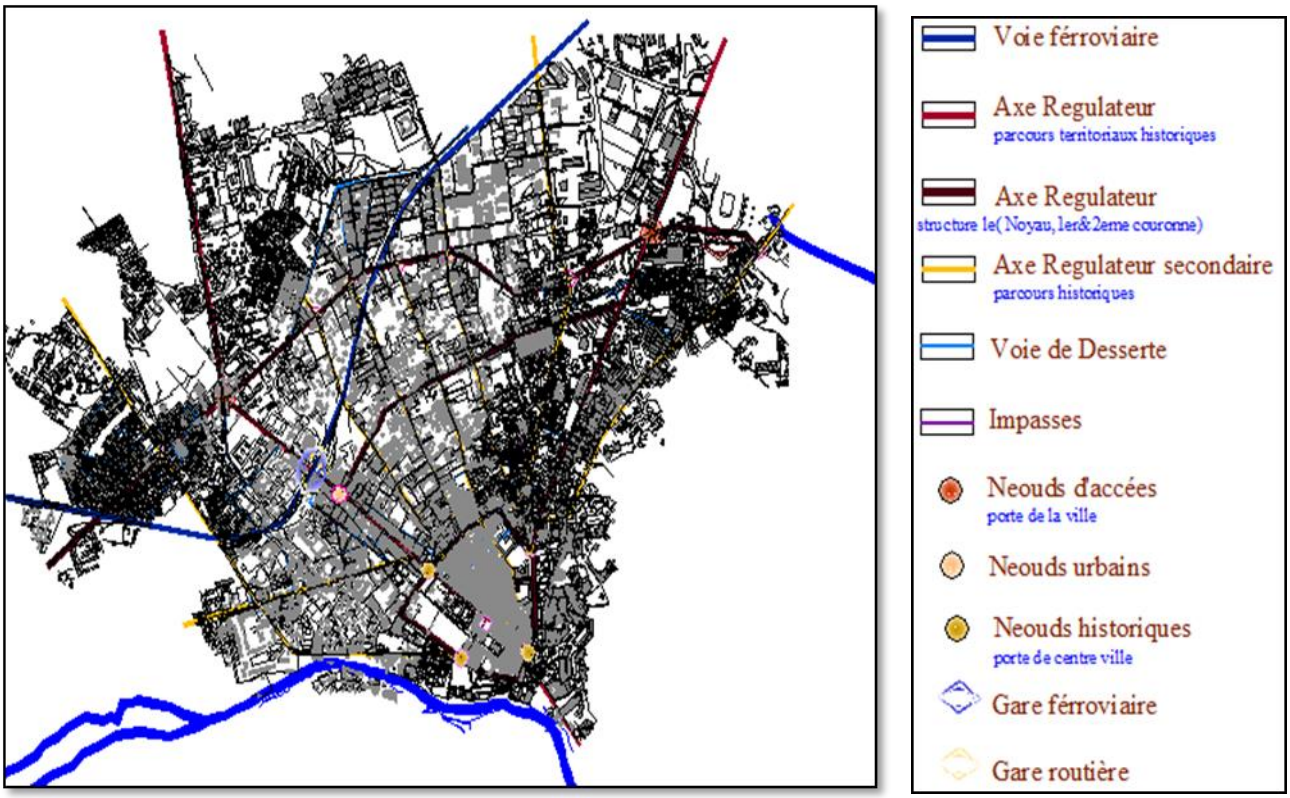


FIGURE 36 :MAP SHOWING THE ROAD SYSTEM OF THE CITY OF BLIDA

SOURCE: **MASTER'S THESIS**

3.3.2.3 Functional Structure:

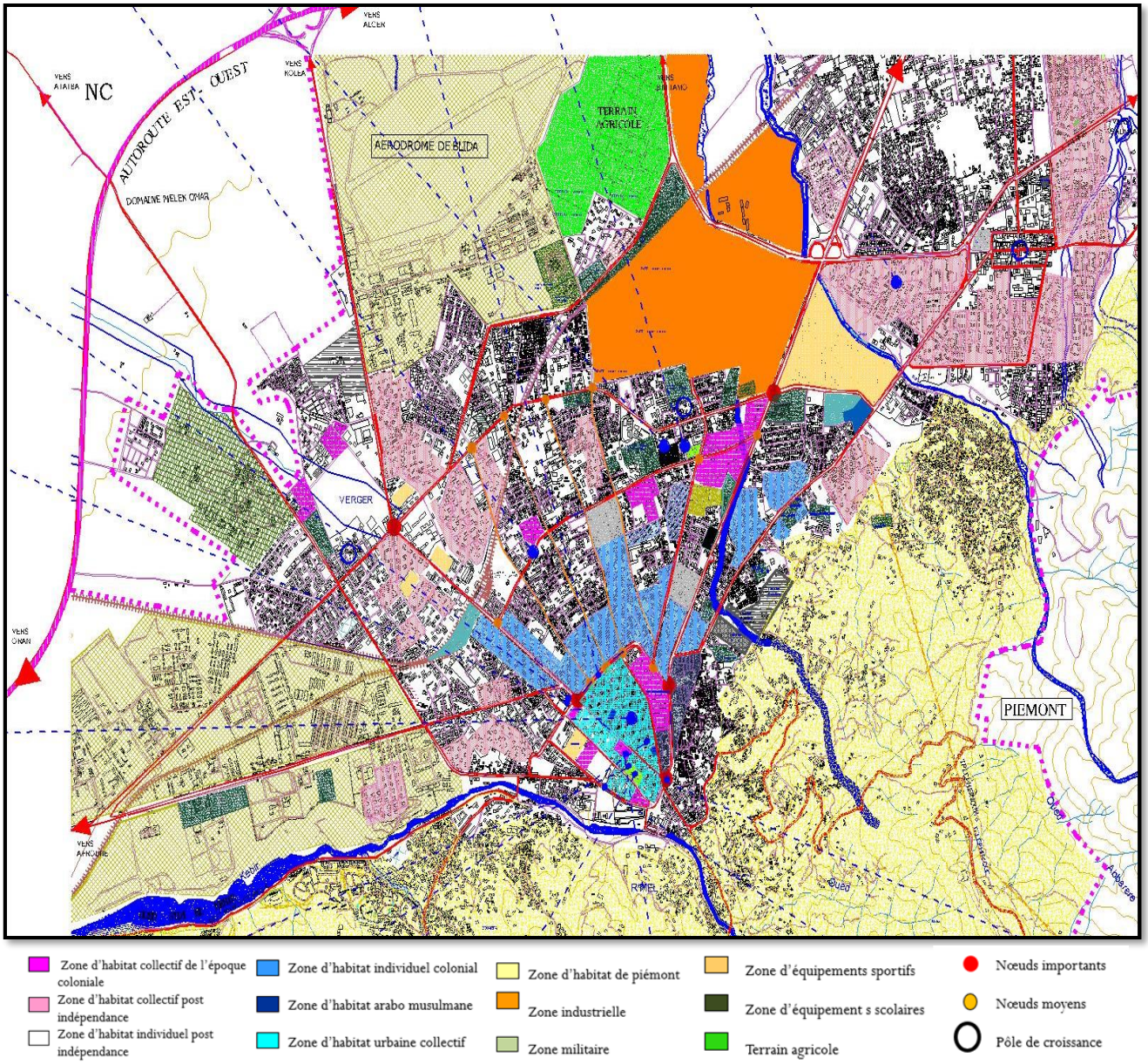


FIGURE 37 : MAP SHOWING THE DIFFERENT FUNCTIONS IN THE CITY OF BLIDA

SOURCE: **MASTER'S THESIS**

4- OPERATIONAL SECTION

4.1 CHAPTER 1: Presentation of the Study Area (POS Ben Achour)

4.1.1 Location:

The area covered by the Ben Achour Land-Use Plan (P.O.S) is located on the eastern foothills of Blida. It covers a surface area of 48 hectares and is bounded as follows:

- To the north by National Road 29 (RN 29)
- To the south by the foothills
- To the east by the extension of the Ben Achour neighborhood
- To the west by the area of the P.O.S Hamalit and the Ourida neighborhood

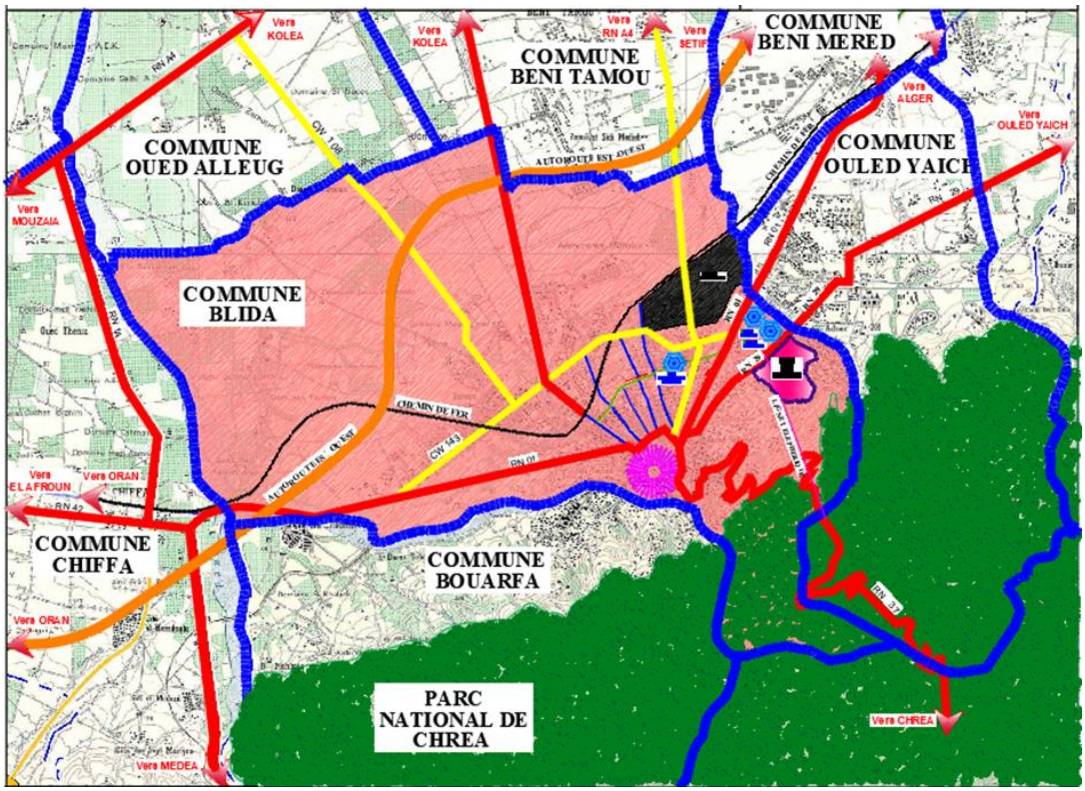


FIGURE 38 : SITUATION MAP OF THE POS BEN ACHOUR – BLIDA –

SOURCE: THE POS OF BLIDA

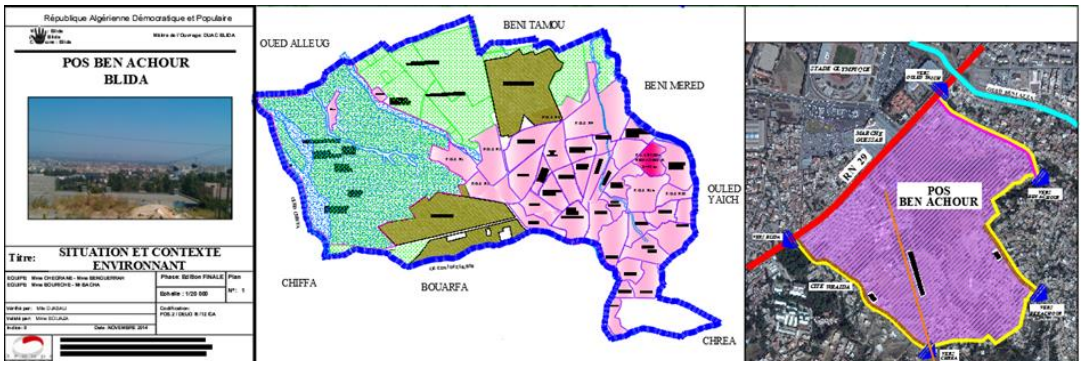


FIGURE 39 : MAP OF THE BEN ACHOUR LAND-USE PLAN – BLIDA

SOURCE: THE POS OF BLIDA

4.1.2 Accessibility:

Accessibility to the site is structured on two levels:

- The first level reflects the connection between the study area and the city of Blida. This is ensured by a network of roads with varying ownership, running perpendicular to National Road 29 (RN 29).
- The second level represents the relationship of the site to its regional context. This is provided by RN 29, which runs along the western part of the site. This road plays a major role in ensuring accessibility to the area.

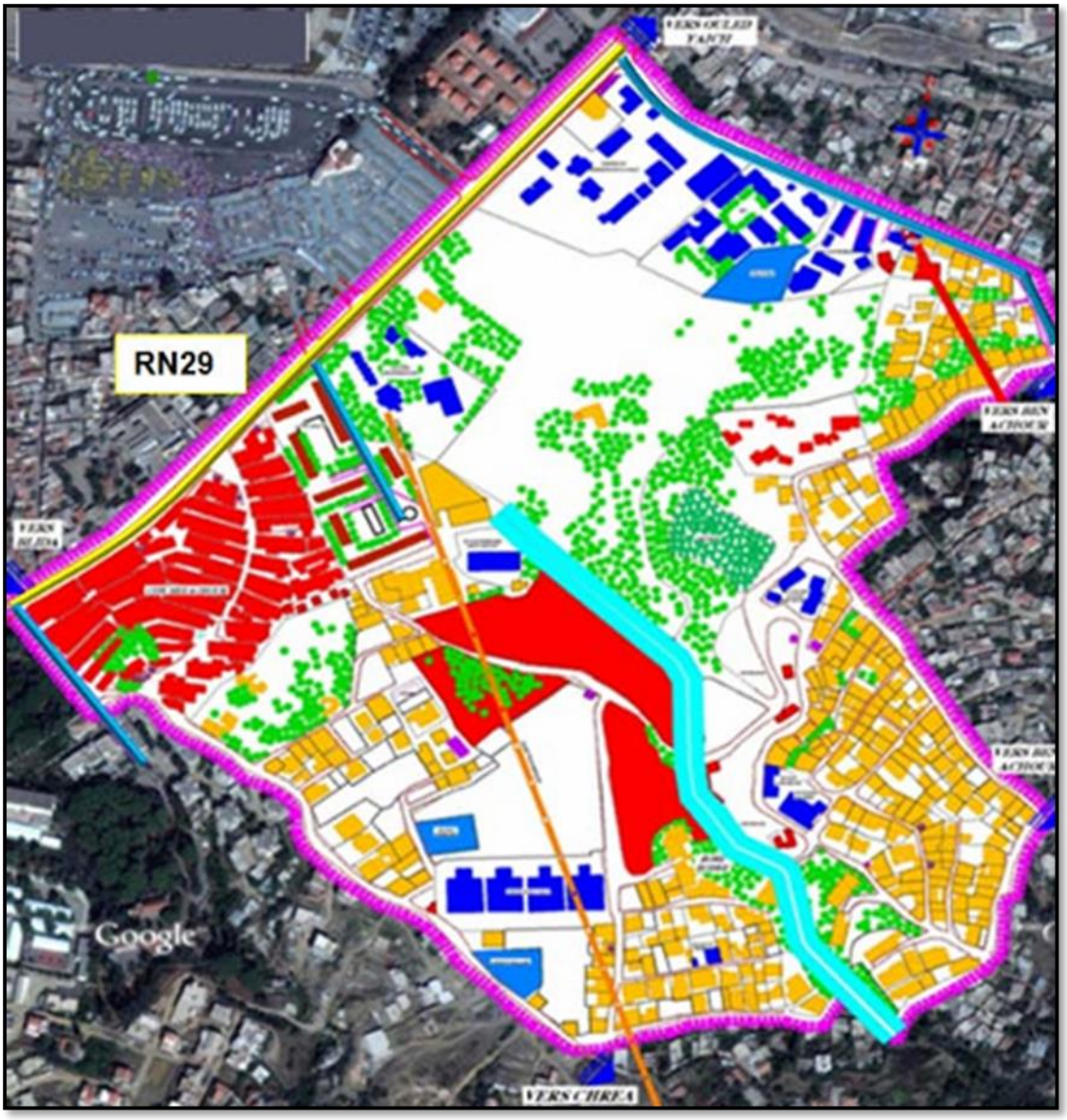


FIGURE 40 : MAP SHOWING ACCESSIBILITY TO THE BEN ACHOUR POS

SOURCE: THE POS OF BLIDA

4.1.3 Selection Criteria:

- Close enough to remain effectively connected by transportation and to maintain interactions (economic and social flows).
- Far enough to avoid direct competition or overlapping activities with the historic city center.
- For smaller secondary urban poles, a distance of 2 to 15 km is often considered optimal (European Commission, 1999; ESPON, 2006), which is the case in our situation.

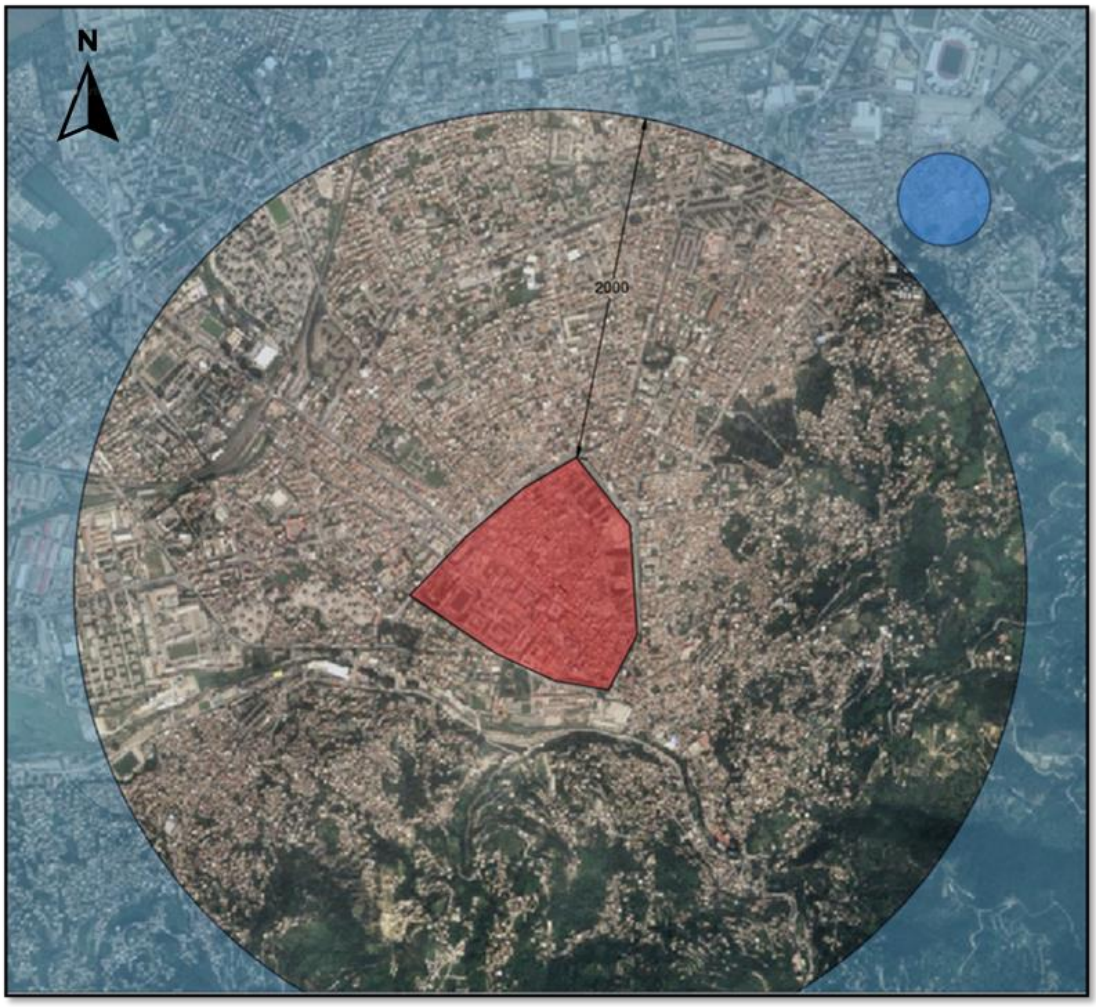


FIGURE 41 : MAP SHOWING THE DISTANCE BETWEEN THE CITY CENTER AND THE BEN ACHOUR POS

Source: Google Earth image processed by the author

4.2 CHAPTER 2: ANALYSIS OF THE BEN ACHOUR POS – BLIDA

4.2.1 POS Report:

The Land-Use Plan (POS) of Ben Achour adopts a territorial organization based on the division into three homogeneous zones, in order to structure the urban space according to its functional, morphological, and regulatory vocations. This classification aims to tailor development interventions to the specific characteristics of each sector, while ensuring overall coherence.

Homogeneous Zone 1 – UB (Residential Area): Covering an area of 14 hectares, this zone constitutes the main residential fabric of the POS. It is characterized by low-density individual housing (villas, subdivisions) and small collective buildings, accompanied by local shops and public facilities (schools, health centers, city hall, etc.). This zone has strong potential for restructuring and densification, especially along the RN29, a major structuring axis.

Homogeneous Zone 2 – UT (Foothill Zone): Located in the southern part of the perimeter, this zone covers approximately 23.3 hectares and is situated on sloping terrain. It is primarily composed of scattered individual housing, with a projected shift toward semi-collective housing. It is also designated to host major public facilities (such as a high school, cultural center, and youth center), and aims to enhance the landscape through the creation of an urban park along the banks of the oued (stream).

Homogeneous Zone 3 – Military Zone: Reserved exclusively for military authorities, this zone is non-buildable for civilians and excluded from standard urban development projects. It is subject to specific constraints related to national security and military regulations.

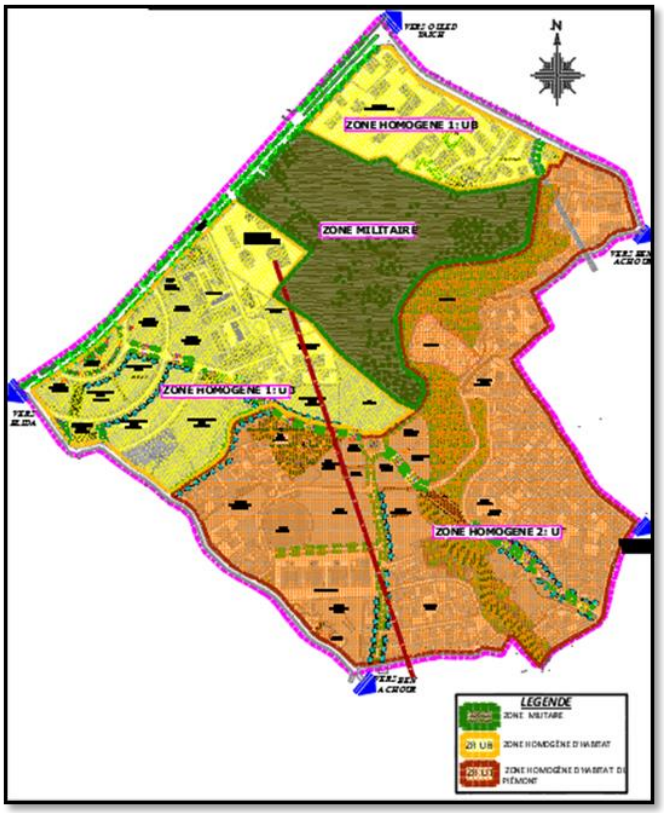


FIGURE 42 : POS MAP OF BEN ACHOUR SHOWING TERRITORIAL ORGANIZATION

Source : POS BEN ACHOUR

4.2.2 Intervention Site

4.2.2.1 Current State:

The UB1 homogeneous zone covers **14 hectares** and corresponds to a low-density individual housing fabric, mainly composed **of villas**, **subdivisions**, and **small collective residential buildings**. This area also includes some **commercial establishments, services, and public facilities**. The existing urban fabric is fragmented and poorly structured, with **incomplete road** infrastructure and **unpaved tracks** serving the blocks, leading to the isolation of certain sectors.

Key features of the site include:

- The presence of precarious housing occupying strategically important plots;
- Non-uniform building alignments;
- The CHAOU housing estate, which requires urban improvement interventions;
- A major structuring axis, RN29, bordering the zone to the west but underutilized;
- A lack of a coherent network of public spaces and urban animation.

Existing facilities are scattered and include **primary schools**, a **health center**, **a social reintegration center**, **a cable car station**, **municipal services (APC),** and a **Youth** and **Sports Facility (EJS).** However, these facilities are not integrated into a comprehensive scheme of functional centrality.

In summary, the UB1 zone is characterized by a **disorganized residential fabric** with strong **restructuring potential**. It requires targeted interventions including densification, regularization, **improved road access**, and **enhancement of collective spaces** to support the emerging centrality within the Ben Achour sector.

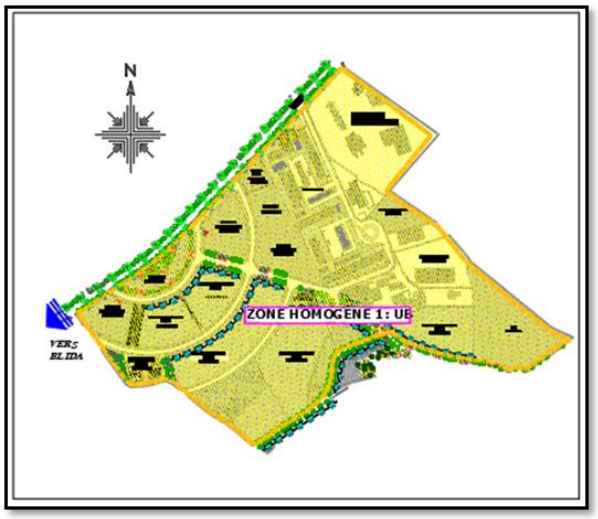


FIGURE 43 : THE UB1 HOMOGENEOUS ZONE

Source : POS Map of Ben Achour

FIGURE 44 : AERIAL VIEW OF THE UB1 ZONE

Source: Source: Google Earth

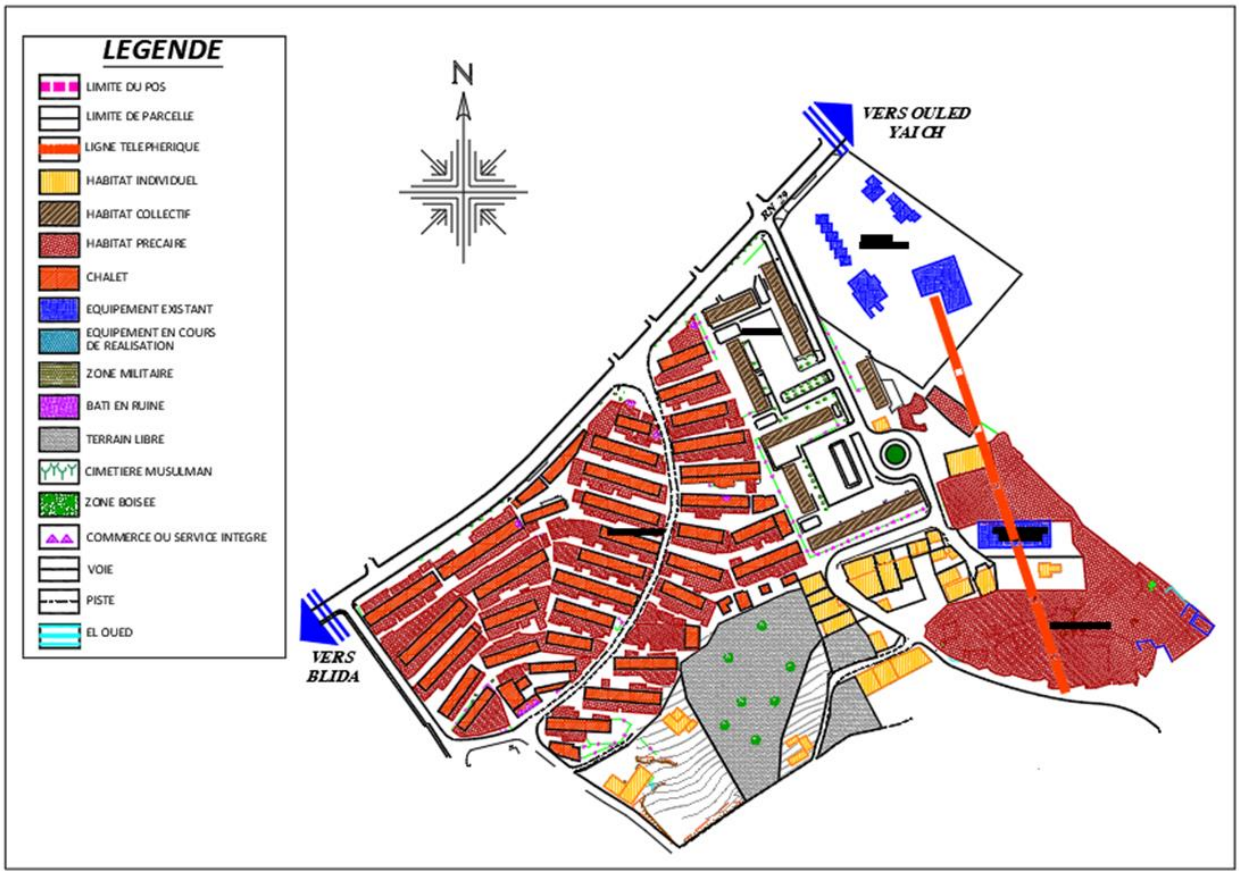


FIGURE 45 : CURRENT STATE OF THE PLOT

Source : POS Map of Ben Achour

4.2.3 Orientation of the POS:

The Land Use Plan (POS) of Ben Achour assigns a strategic role **to the homogeneous zone UB1** in the urban structuring of the municipality. This primarily residential area is intended to become a **local urban center** through a series of targeted actions for **restructuring, densification, and urban enhancement.**

The main objective is to **reorganize the existing fabric**—mainly composed of low-density individual housing—by introducing **mixed collective housing**, **local shops, and public facilities**, particularly on plots freed up by the elimination of precarious housing. The POS also includes the improvement of road access by **transforming the current dirt tracks** into paved roads, **creating new routes**, and enhancing the main road axis **(RN29)** through specific landscape and architectural treatments.

Moreover, the **development of quality public spaces**, such as playgrounds and small squares, as well **as the integration of street-level services** along main roads, aims to boost the attractiveness and urban functionality of the sector. All these measures are part of a **controlled densification** approach, aimed at **enhancing the built environment** and **establishing a strong urban center** within the city of Blida.

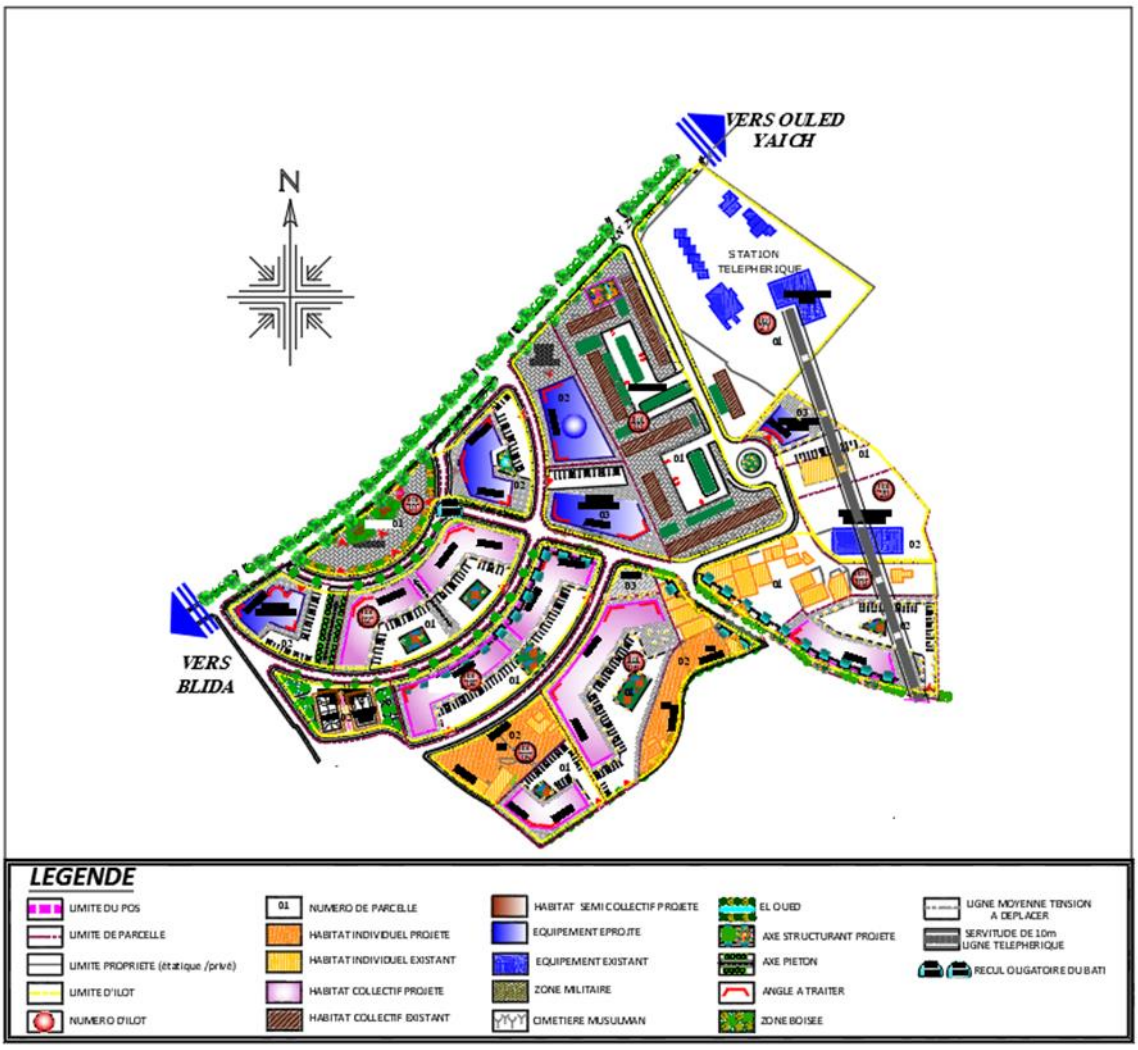


FIGURE 46 : DEVELOPMENT PROPOSAL OF THE LAND USE PLAN (POS) IN THE INTERVENTION SITE

Source : POS Map of Ben Achour

4.3 CHAPTER 3 : Presentation of the Development Plan:

4.3.1 Introduction:

Here is the development plan we proposed for the Land Use Plan (POS) of Ben Achour. One of the major factors in this site is the presence of National Road N1, which dictates a certain hierarchy in the arrangement and placement of the projects. This principle is particularly influenced by the needs for commerce and direct interaction with the main road.

4.3.2 Analysis and Planning Principles:

Hierarchy and Arrangement of Facilities:

Projects involving commercial activities or requiring direct interaction with the national road were given priority placement near it. Collective housing units, on the other hand, are positioned further back, this respecting a functional and visual transition between zones. This parcel distribution creates a natural centralization, inspiring us to position the main project in the center, surrounded by complementary projects. For instance, the multifunctional center located in the middle acts as an attractor, while the set-back collective housing units optimize lighting and offer panoramic views.

Optimization of Lighting and Ventilation:

"Architecture is the learned game, correct and magnificent, of forms assembled in the light."[3] Le Corbusier. This quote perfectly illustrates the focus on light in the arrangement of architectural volumes.

The collective housing units were set back on their parcels to allow better lighting for the lower levels of the multifunctional center. Their height is limited to seven stories (G+7) to avoid blocking the rear panoramic views, while benefiting from a layout that shields parking lots from direct sunlight. This contrasts with the original POS, where vehicles were exposed to sun.

Optimization of social interaction:

"Urbanism is about making places for people, not just functional spaces."[4]— Jan Gehl. This approach is reflected in our plan, where every zone is designed to encourage human interaction and accessibility.

Urban Continuity and Human Scale:

The tow buildings on north and south of the project are aligned to ensure a visual and functional continuity of the urban facade along the national road.

Their limited height reduces visual impact and allows for a smooth transition with the surrounding projects.

Central project concept :

The central project reflects a symmetrical layout with a main circulation axis, distinguishing public, semi-public, and private spaces through functional layering.

The shape of the plot was utilized to maximize natural lighting and ventilation.

[3] Le Corbusier. (1927). Towards a New Architecture (Trans. F. Etchells). London: Architectural Press.

[4] Gehl, J. (2010). *Cities for People*. Washington, DC: Island Press.

4- OPERATIONAL SECTION

Sketch and generating idea :

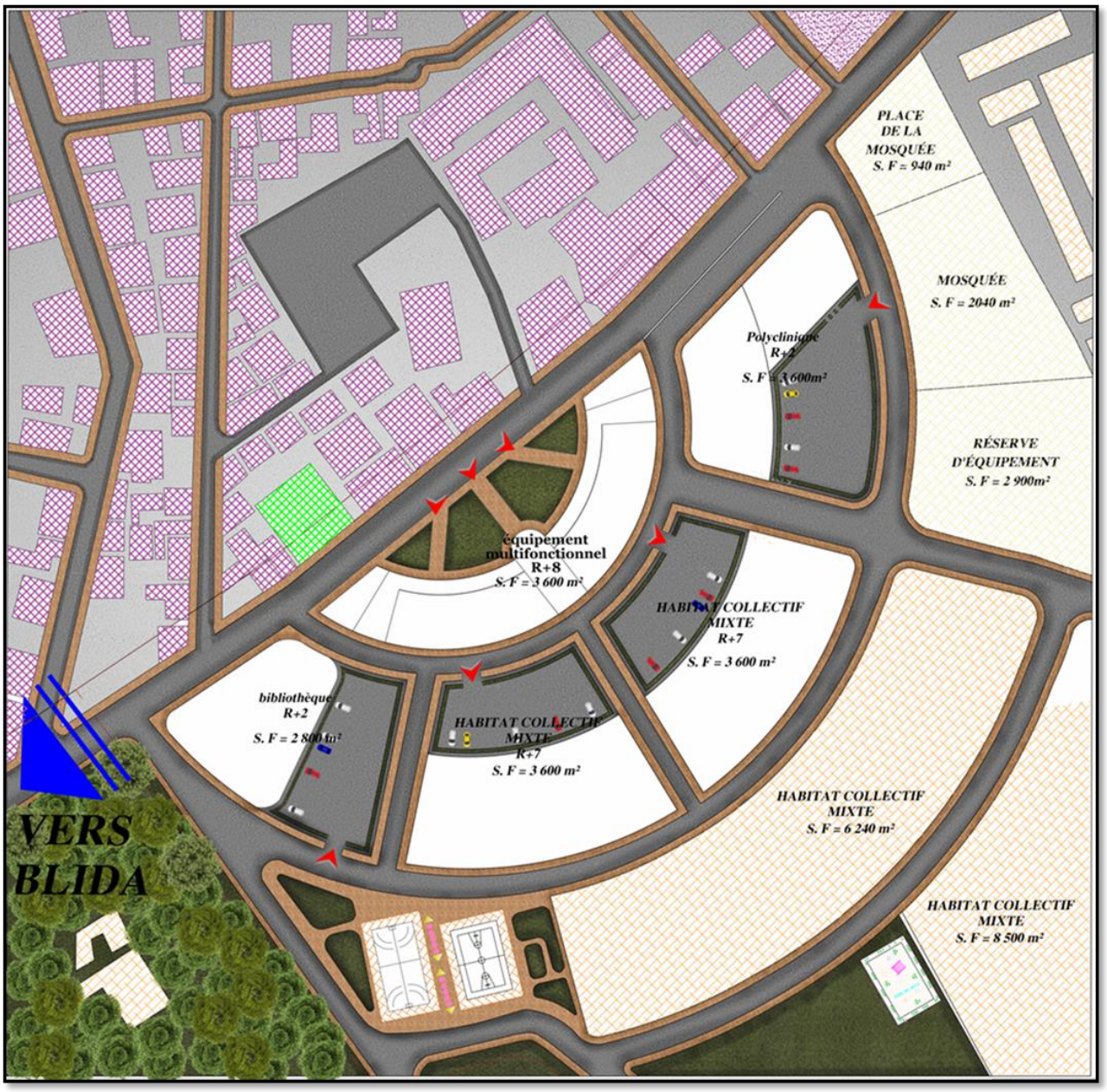


FIGURE 47 : MASTER PLAN SOURRCE AUTHOR

4.3.4 Analysis of the Intervention Site :

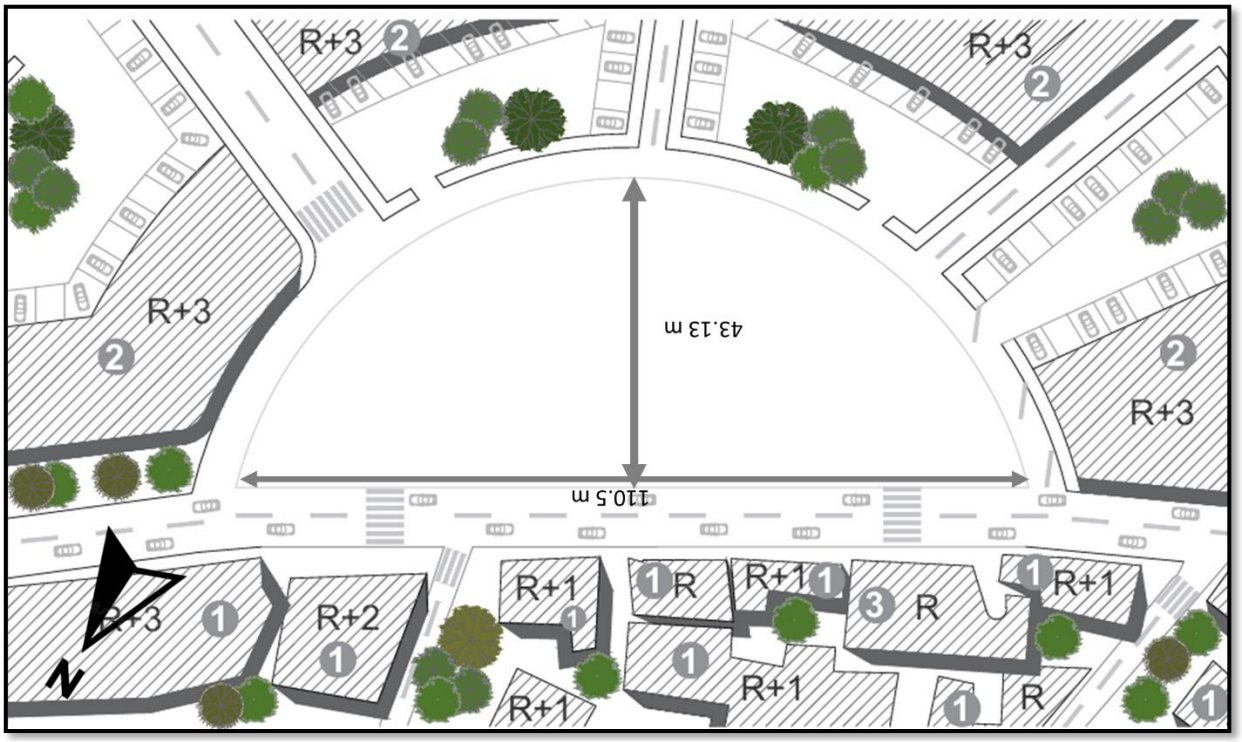


FIGURE 48 : MAP SHOWING THE ANALYSIS OF OUR PLOT

Our plot has a regular **semicircular shape**, with a diameter of **110.5 m** and a total area of **3550 m².**

4.4 CHAPTER 4: ARCHITECTURAL PROJECT

4.4.1 Project idea :

The proposed project consists of designing a multifunctional center in the Ben Achour district of Blida, with the aim of creating a new secondary urban centrality. Located at a strategic interface between the foothills and the city's eastern extension, the site offers significant potential for urban integration and accessibility. The project will include commercial spaces, cultural venues, administrative services, and public facilities, organized around vibrant public spaces that encourage social interaction and urban activity throughout the day.

Inspired by the principles of the polycentric city and the "15-minute city" concept, the center will serve as a local urban hub, reducing dependence on the historic city center and contributing to the redistribution of urban functions. Through its design, the project aims to promote spatial justice, improve quality of life, and support the long-term structural balance of Blida.

4.4.2 Site-related concepts:

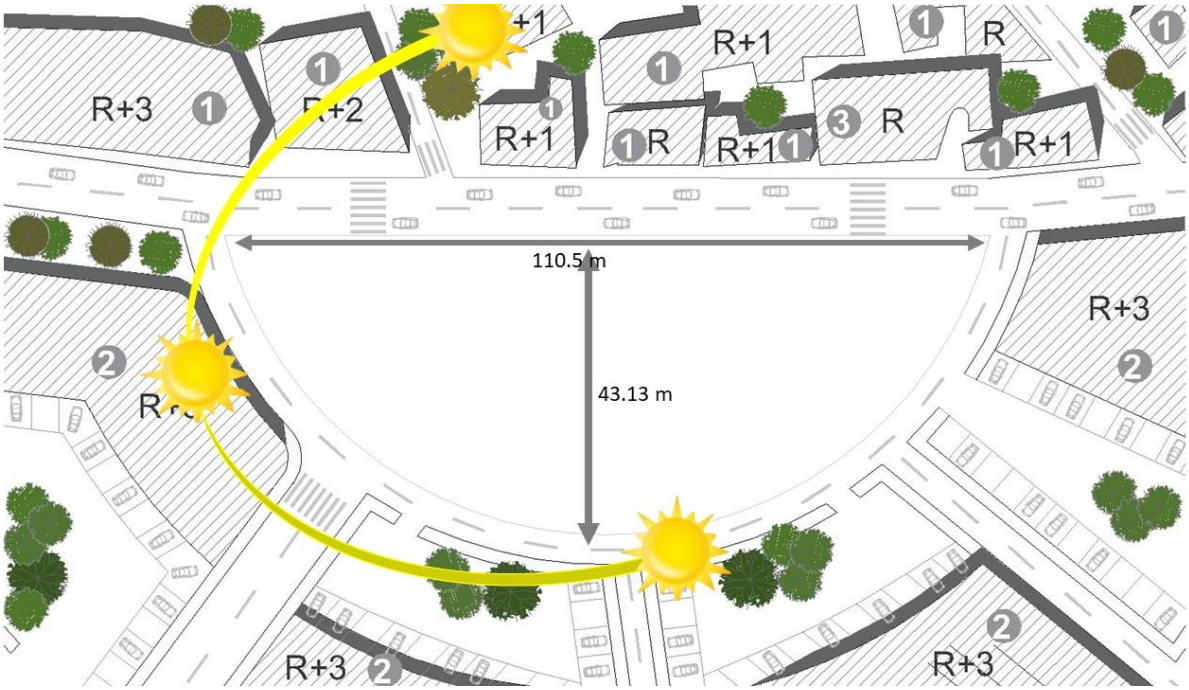


FIGURE 49 : SOLAR EXPOSURE DIAGRAMS

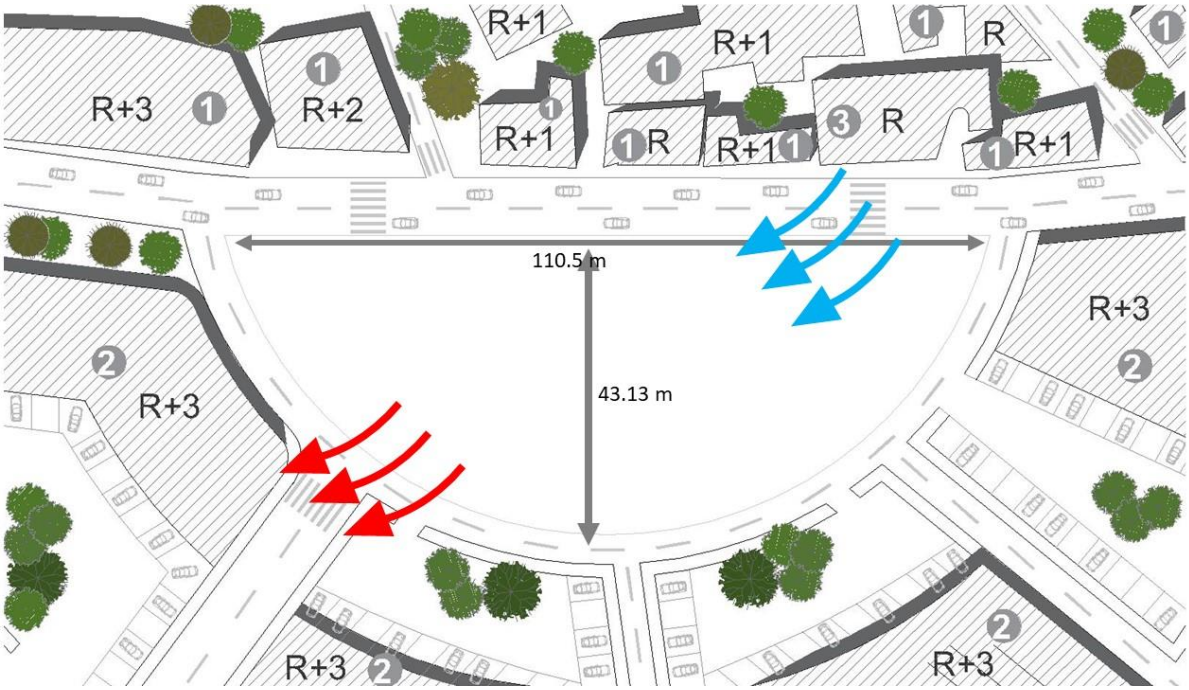


FIGURE 50 : WIND DIRECTION DIAGRAM

4.4.3 Form genesis:

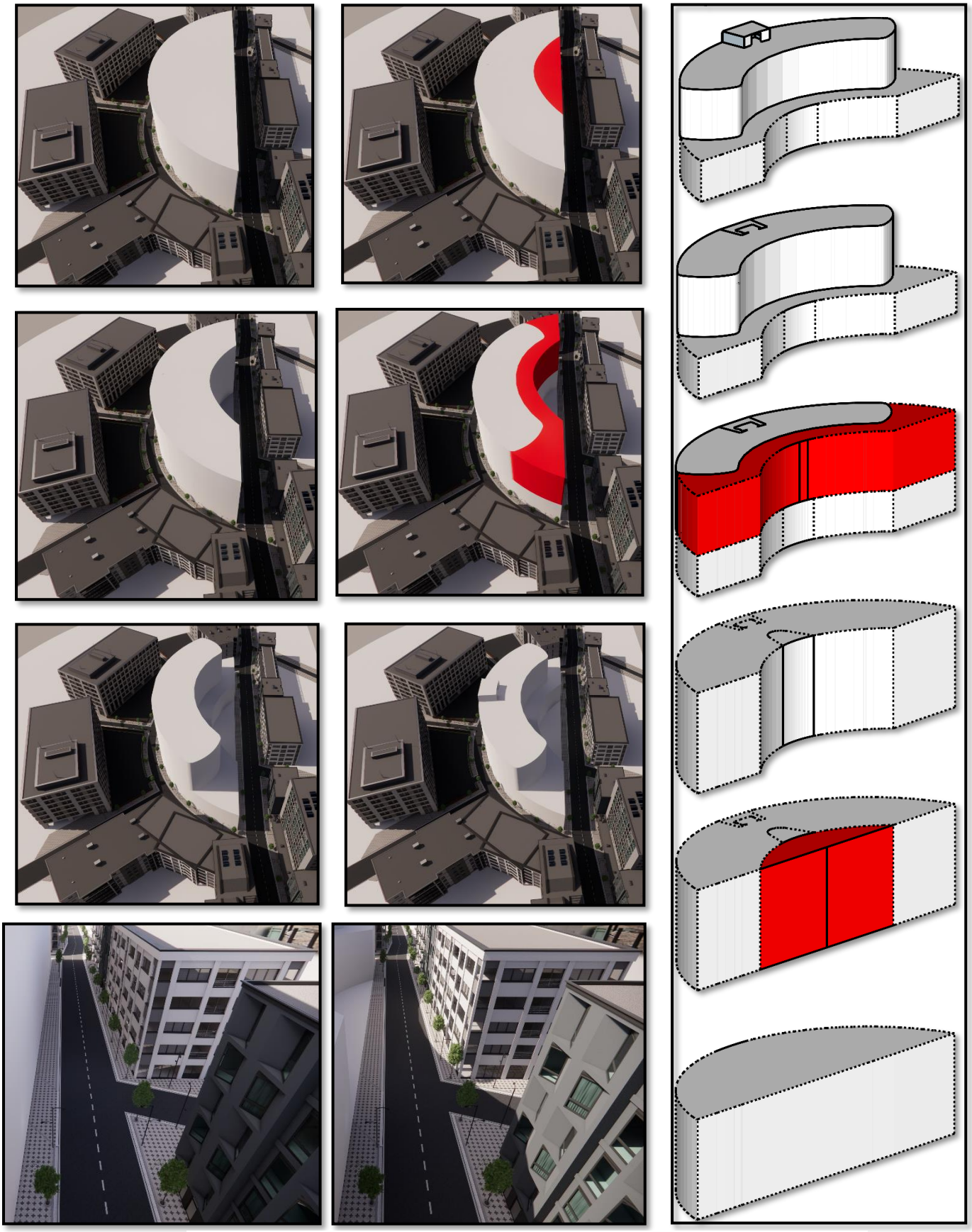


FIGURE 51 : DIAGRAMS SHOWING THE FORM GENERATION SOURCE AUTHOR

4.4.4 Program-related concepts:

Our project is structured around four primary functional components, each contributing to the vitality and versatility of the proposed intervention:

1. **Commercial Function**
   Designed to activate the ground floor and provide services to both residents and visitors, the commercial spaces are strategically placed along the main axis to ensure visibility and accessibility.
2. **Cultural Function**
   A cultural hub that includes a library and multipurpose spaces aims to encourage social interaction, learning, and community engagement, enriching the urban experience.
3. **Accommodation**
   The residential component is composed of hotel rooms that are integrated with the urban fabric, ensuring privacy while fostering a sense of community.
4. **Business Function**
   Spaces dedicated to entrepreneurship, co-working, and offices are incorporated to support economic development and provide flexible working environments.

Together, these four functions are harmoniously integrated to ensure a vibrant, multifunctional, and sustainable urban center.

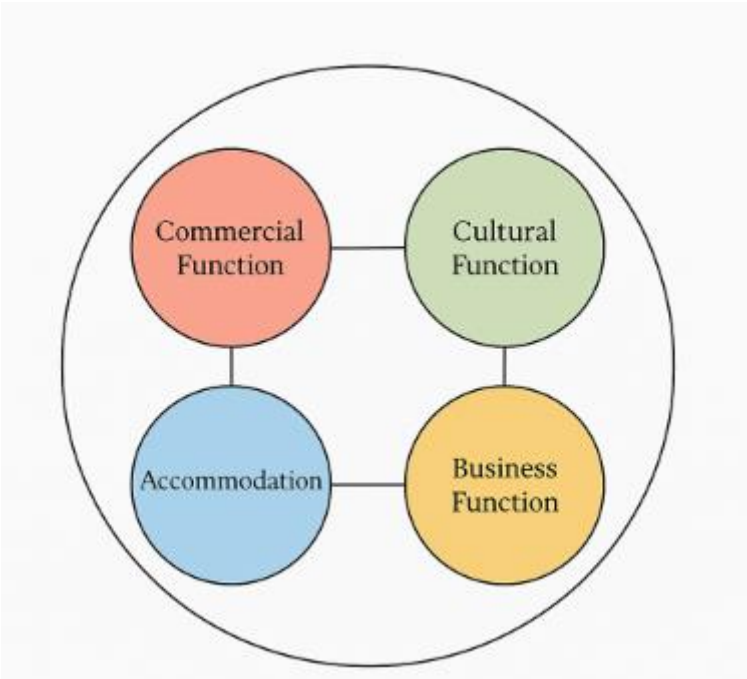


FIGURE 52 : DIAGRAMS SHOWING THE MAIN FUNCTIONS

SOURCE : AUTHOR

4.4.5 Project program:

0-1. Commercial Zone :

Total Built Area (including circulation): 2,838 m²

- **Retail Shops (1,165 m²)**
  - Perfumery: 65 m²
  - Cosmetics: 65 m²
  - Jewelry: 55 m²
  - Watchmaking: 75 m²
  - Men's Ready-to-Wear: 110 m²
  - Women's Ready-to-Wear: 110 m²
  - Children's Ready-to-Wear: 100 m²
  - Men's Footwear: 90 m²
  - Women's Footwear: 100 m²
  - Furniture: 140 m²
  - Home Appliances: 100 m²
  - Sporting Goods: 90 m²
  - Children's Toys: 65 m²
- **Large Retail Spaces (1,200 m²)**
  - Supermarket: 205 m²
  - Food & Beverage Services: 205 m²
  - Fast Food: 65 m²
  - Pizzeria: 75 m²
  - Pastry Shop: 65 m²
  - Restaurant: 150 m²
  - Cafeteria: 100 m²
  - Tea Lounge: 90 m²
  - Leisure & Wellness: 450 m²
    - Game Room: 200 m²
    - Fitness Center: 250 m²
- **Circulation Space (20%)**: 473 m²

0-2. Cultural Zone:

Total Built Area (including circulation): 888 m²

- **Library (345 m²)**
  - Adult Reading Room: 150 m²
  - Children's Reading Room: 110 m²
  - Lending Area: 25 m²
  - Archives: 60 m²
- **Creative Workshops (180 m²)**
  - Drawing: 60 m²
  - Music: 60 m²
  - Photography: 60 m²
- **Scientific Clubs (160 m²)**
  - Computer Science: 80 m²
  - Language Classroom: 80 m²
- **Conference Room**: 55 m²

- **Circulation Space (20%)**: 148 m²

0-3. Accommodation Zone

Total Built Area (including circulation): To be completed once room dimensions are added

- **Common Areas (480 m²)**
  - Reception Hall: 200 m²
  - Reception Desk: 80 m²
  - Luggage Storage: 200 m²
- **Administration (155 m²)**
  - Director's Office: 30 m²
  - Accounting Office: 25 m²
  - Meeting Room: 60 m²
  - Archives: 40 m²
- **Restaurant (350 m²)**
  - Dining Room: 130 m²
  - Reception: 15 m²
  - Kitchen: 50 m²
  - Hot Food Prep: 40 m²
  - Cold Food Prep: 35 m²
  - Semi-private Dining: 80 m²
- **Cafeteria (350 m²)**
  - Cafeteria Hall: 130 m²
  - Reception: 15 m²
  - Kitchen: 50 m²
  - Semi-private Dining: 80 m²
  - Director's Office: 30 m²
  - Accounting Office: 25 m²
  - Storage: 20 m²
- **Banquet Hall**: 190 m²
- **Accommodation Units**: *Data not provided*
- **Circulation Space (20%)**: 55 m² (provisional)

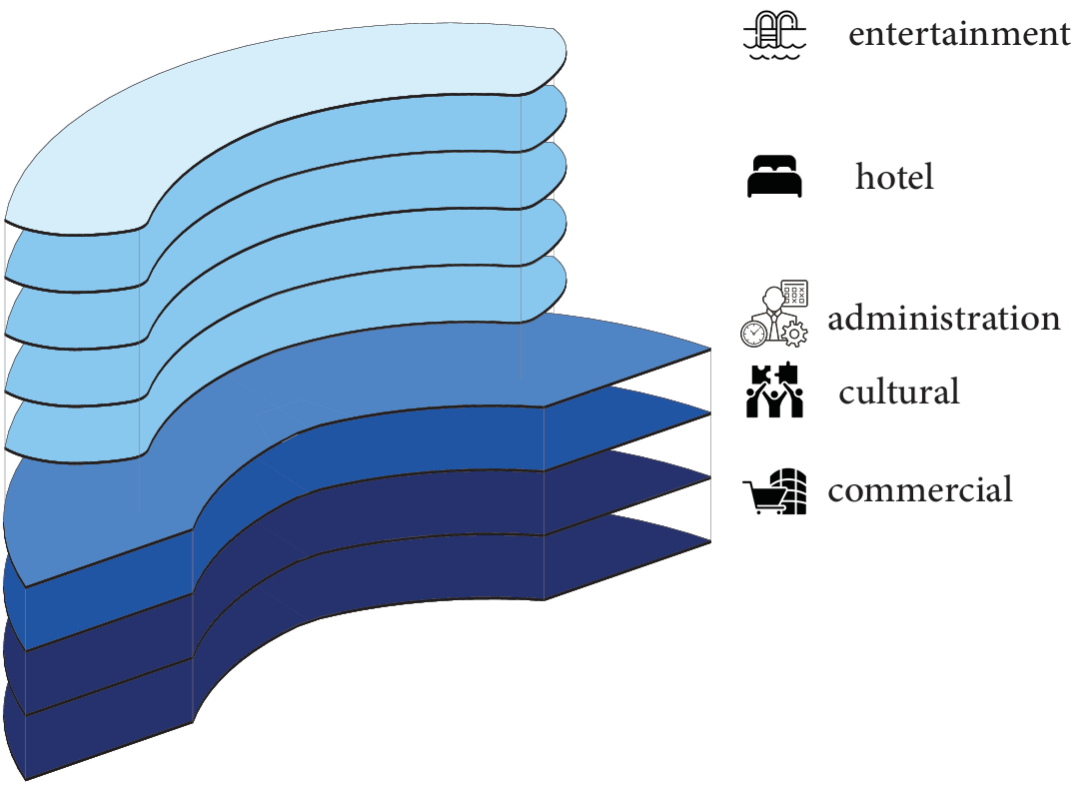
0-4. Business Zone

Total Built Area (including circulation): 696 m²

- **Professional Offices (330 m²)**
  - Architectural Design Office: 150 m²
  - Reception Office: 30 m²
  - Waiting Room: 30 m²
  - Law Firm: 120 m²
- **Corporate Headquarters (250 m²)**
  - Bank: 100 m²
  - Insurance Company: 100 m²
  - Postal & Telecom Office: 50 m²

Circulation Space (20%): 116 m²

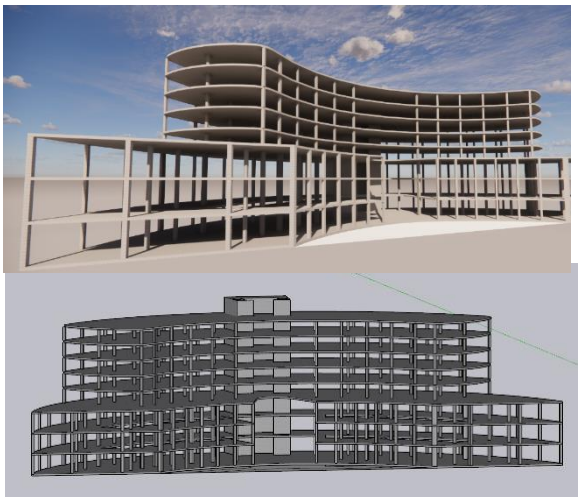
4.4.6 Spatial organizations:



This diagram illustrates the vertical spatial organization of the multifunctional center. The program is structured by function across different levels to optimize circulation, hierarchy, and accessibility. At the base, the lower floors host **commercial spaces**, providing easy public access and street-level activity. Above these, **cultural** and **administrative** functions occupy intermediate levels, forming the civic and institutional core of the project. The **hotel** component is situated in the upper mid-levels, offering privacy and views, while the top floors are dedicated to **entertainment** facilities such as leisure and wellness areas. This vertical stratification enhances functional clarity, operational efficiency, and a dynamic user experience.

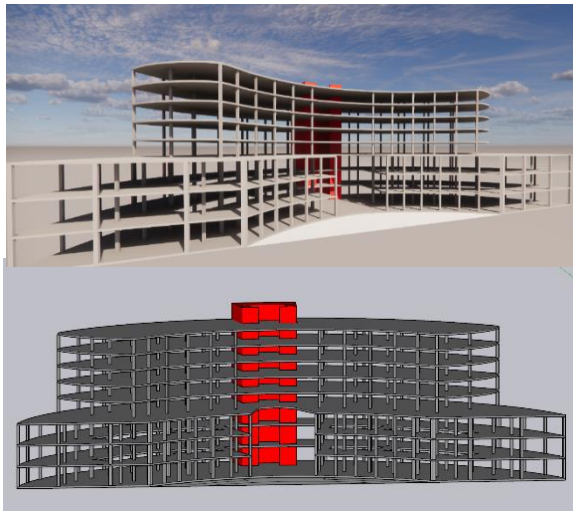
4.4.7 Structural and constructive systems related concepts :

1. Beam and Column System



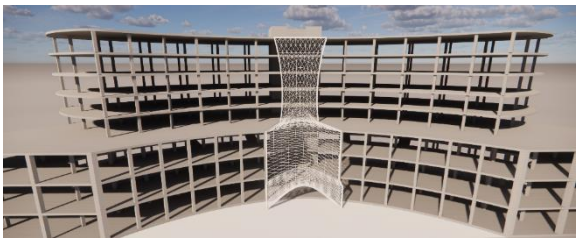
The beam and column system provides the primary structural framework of the multifunctional center. Vertical columns support horizontal beams that transfer loads to the foundation, allowing for large, flexible interior spaces. This system is ideal for modular organization and enables the creation of open-plan areas for commercial, cultural, or administrative functions.

2. Central Core



The central core is a vertical structural element that houses staircases, elevators, and service shafts. In addition to ensuring vertical circulation and functional zoning, it also plays a critical role in stabilizing the structure against lateral forces such as wind and earthquakes. Its centralized location supports efficient distribution and evacuation in a public facility.

3. Truss System

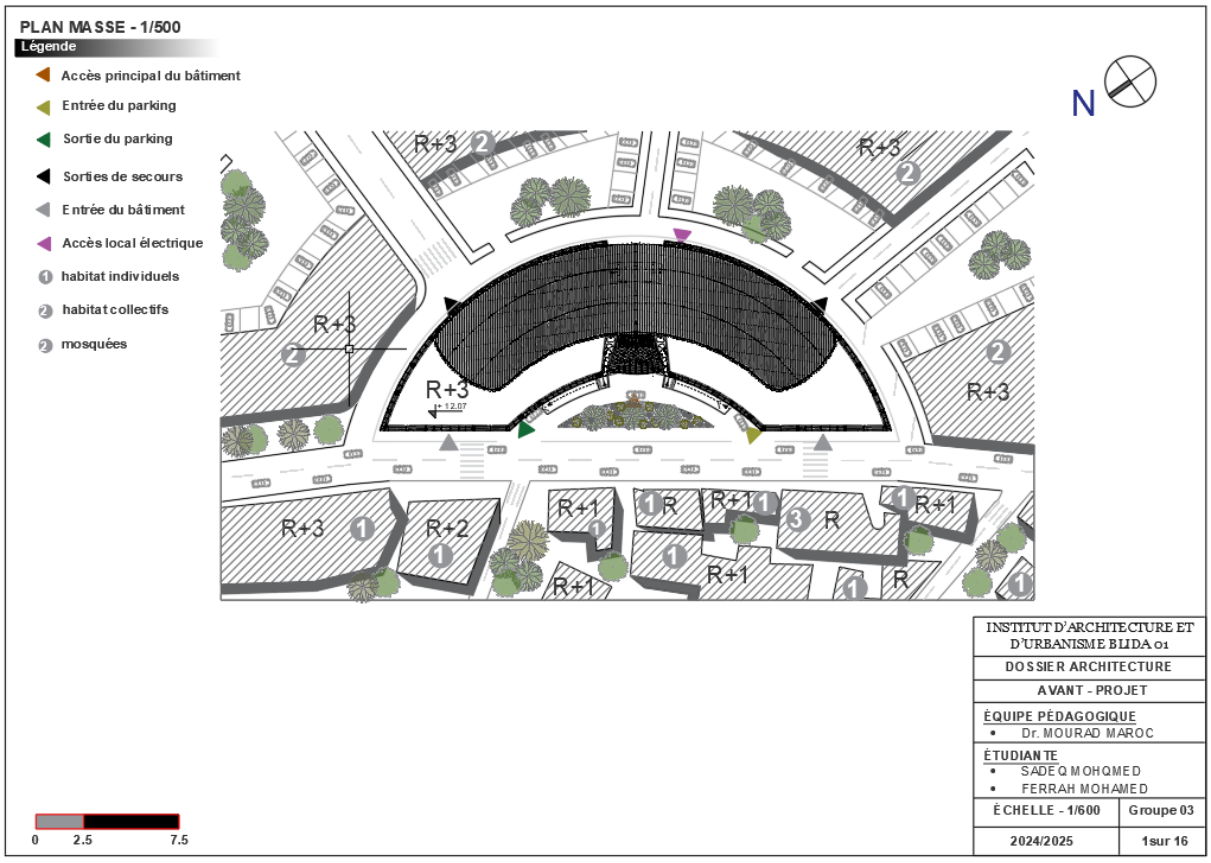


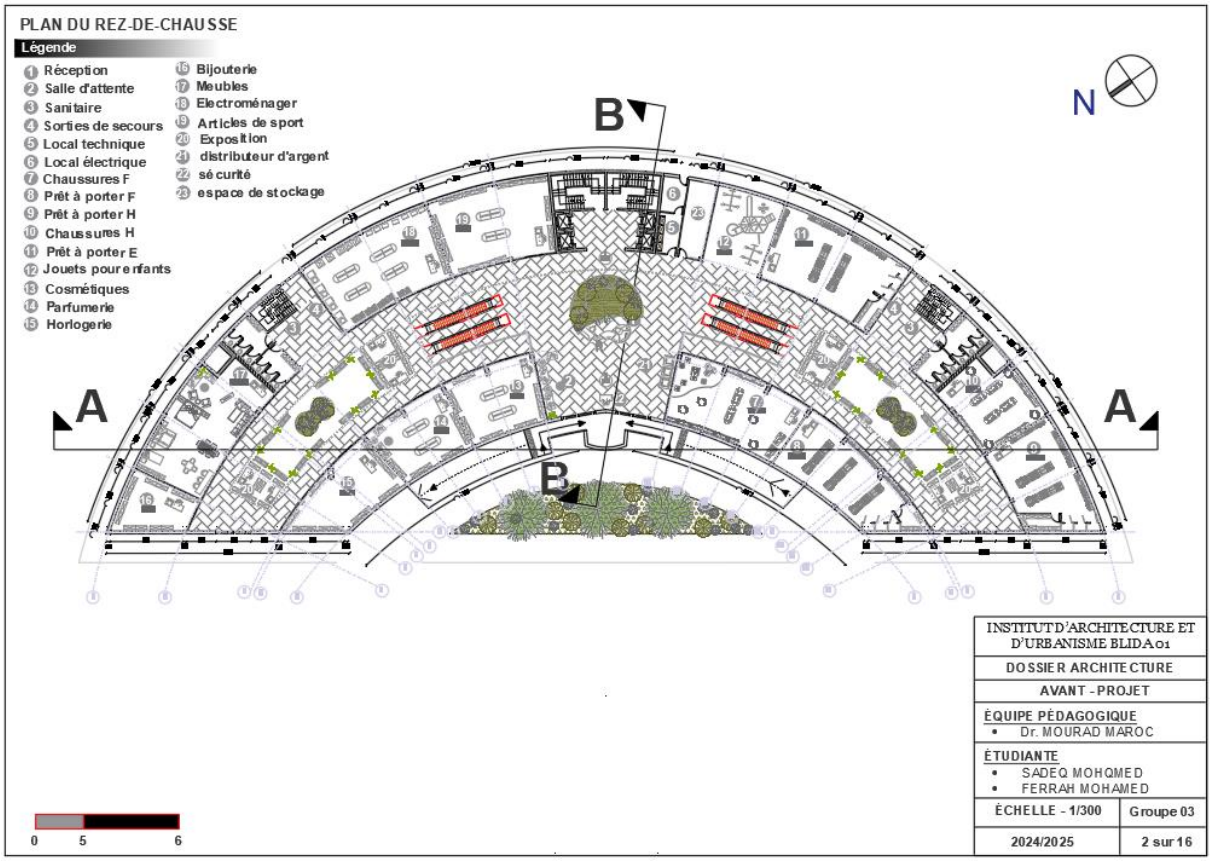
The truss system is used to span large roof areas with minimal material and without intermediate columns. It provides structural efficiency while maintaining open, unobstructed interior volumes. This is especially useful in multipurpose halls or gathering spaces within the center.

Conclusion :

By integrating the beam and column framework with a central core and steel trusses, the structural system achieves both **flexibility and stability**. The columns and beams offer modular spatial organization, the core provides vertical and lateral strength, and the trusses ensure large open space. This combination results in a resilient, functional, and adaptable structure capable of accommodating the diverse activities hosted by a multifunctional urban center

4.4.8 Graphic Documentation:





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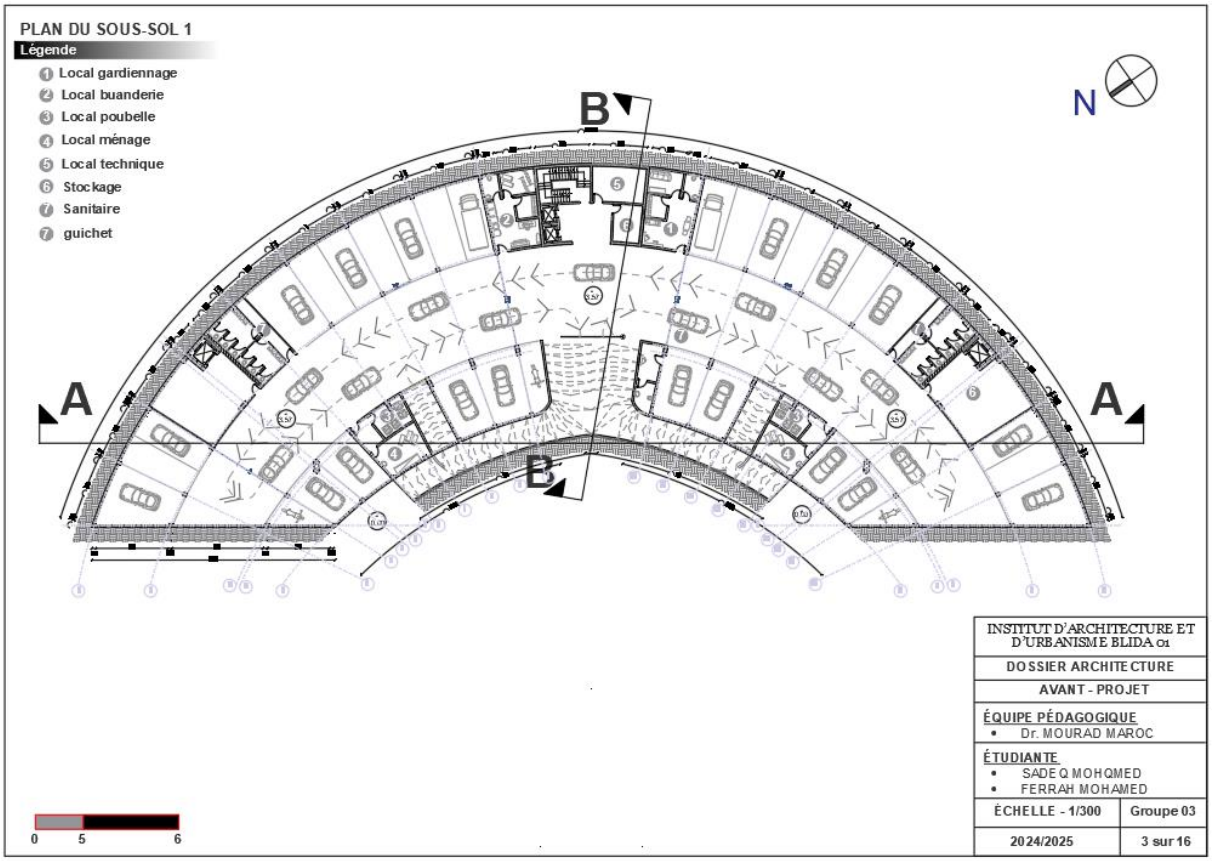

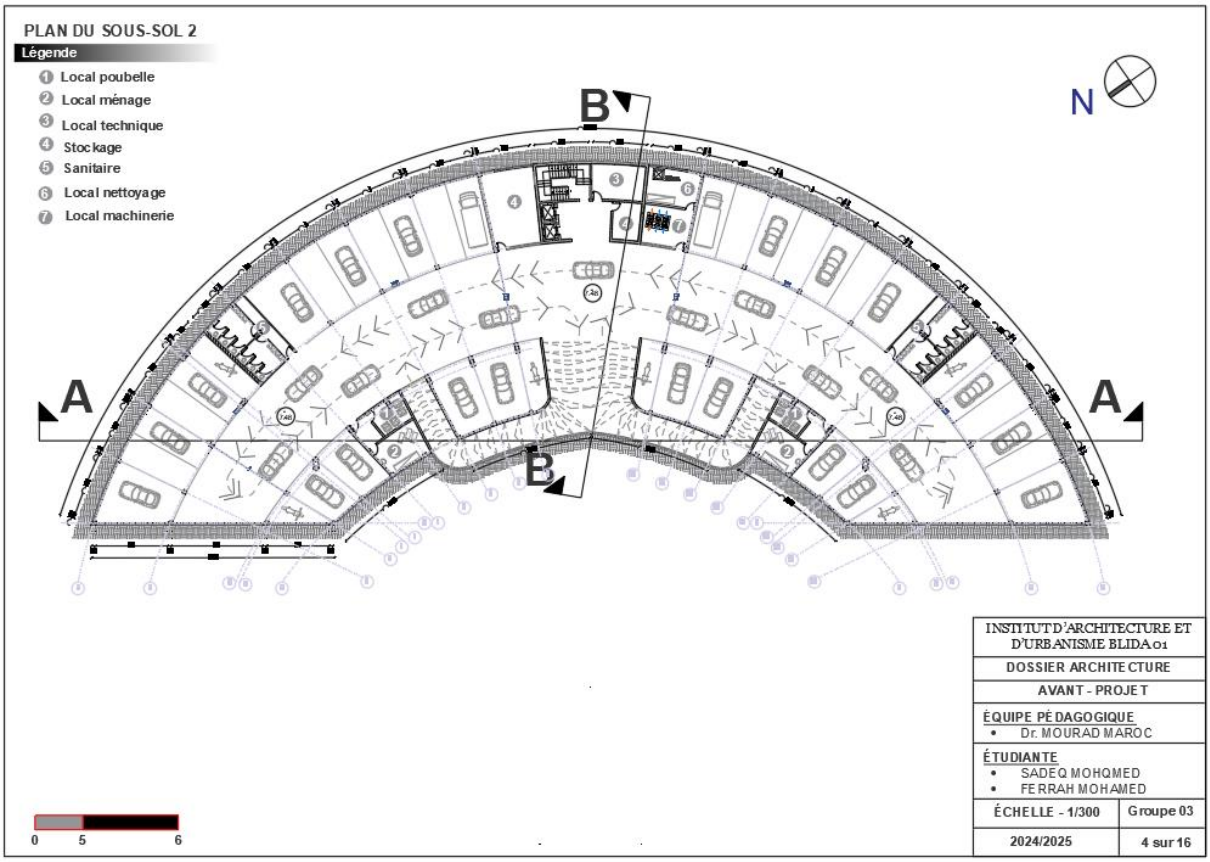

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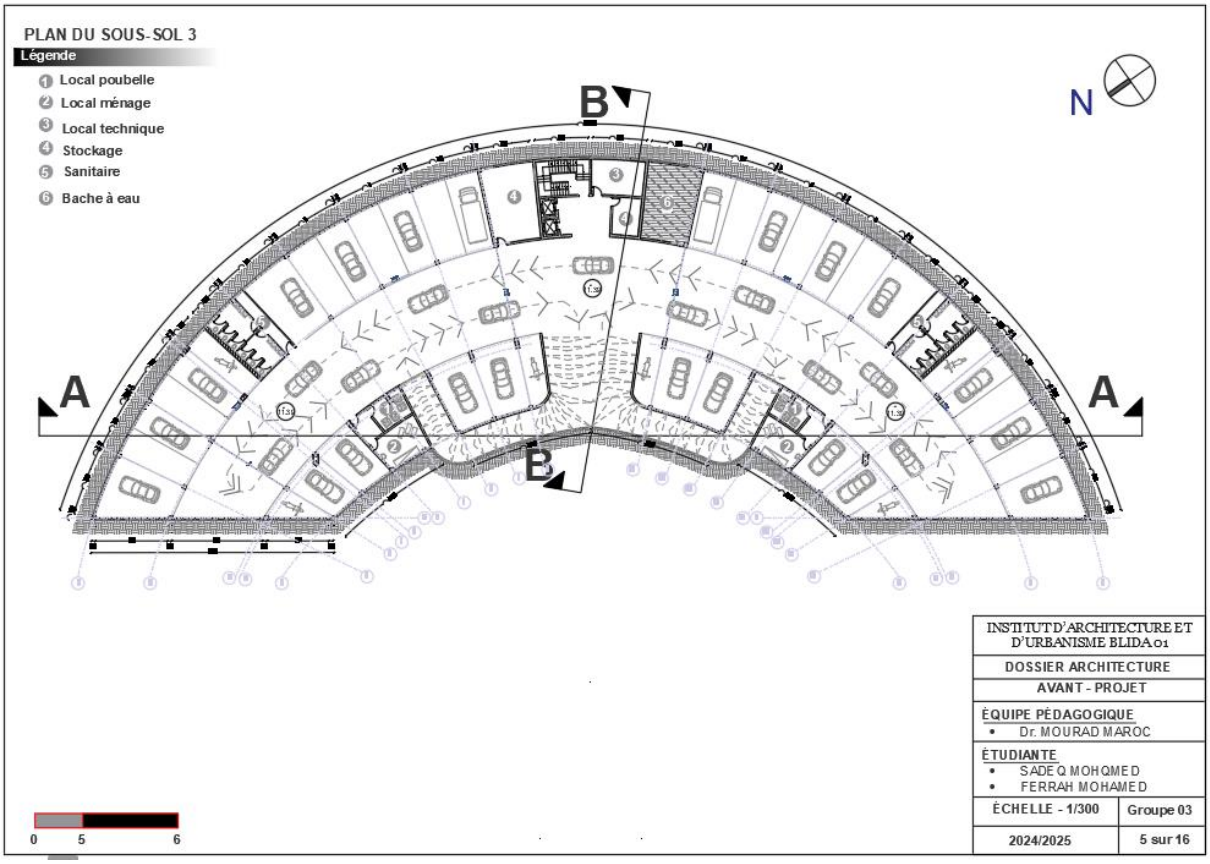

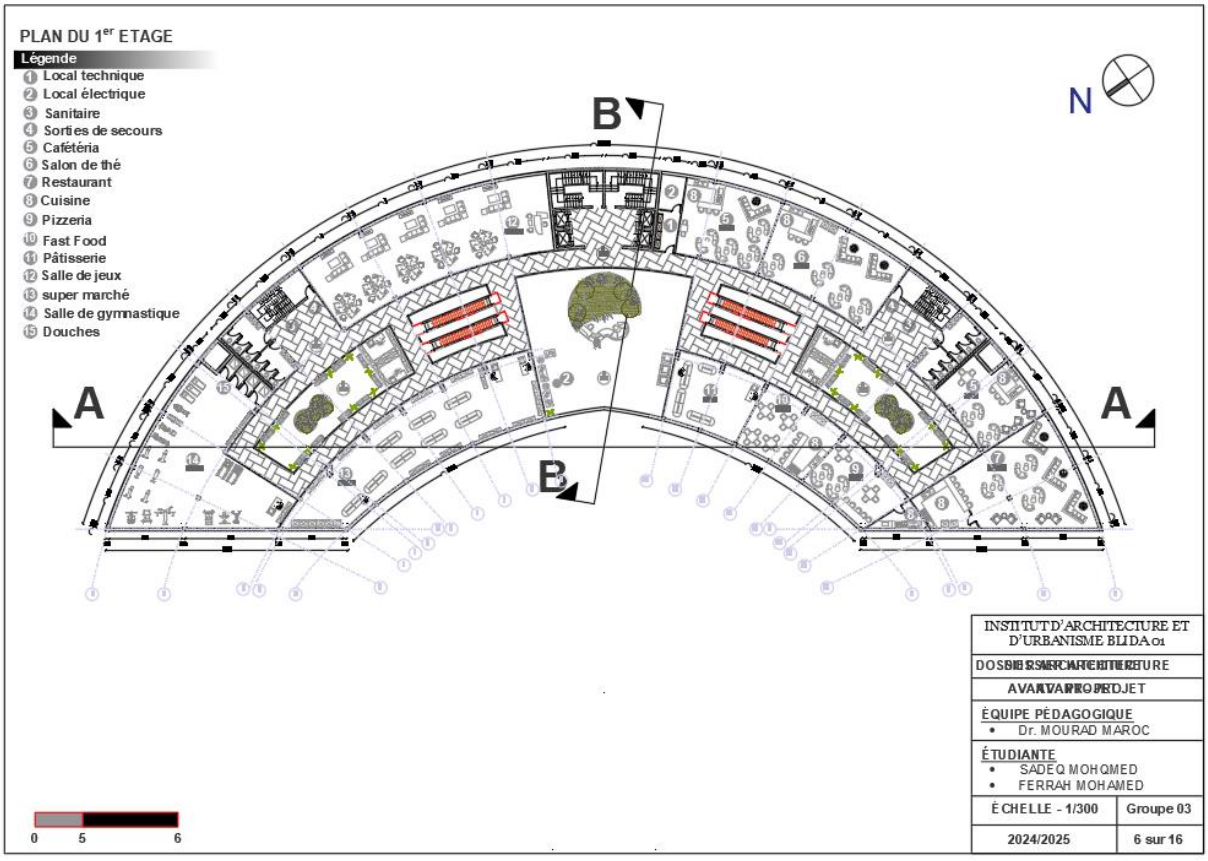

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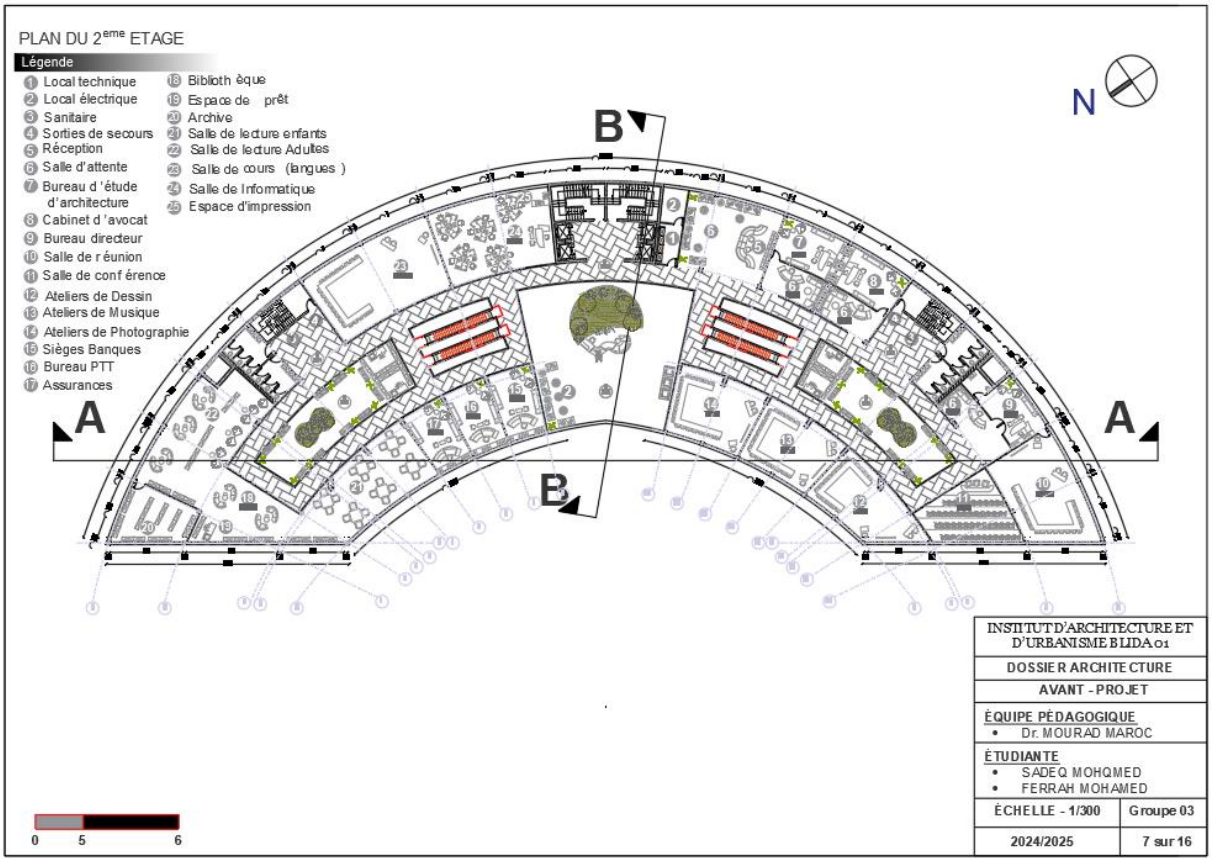

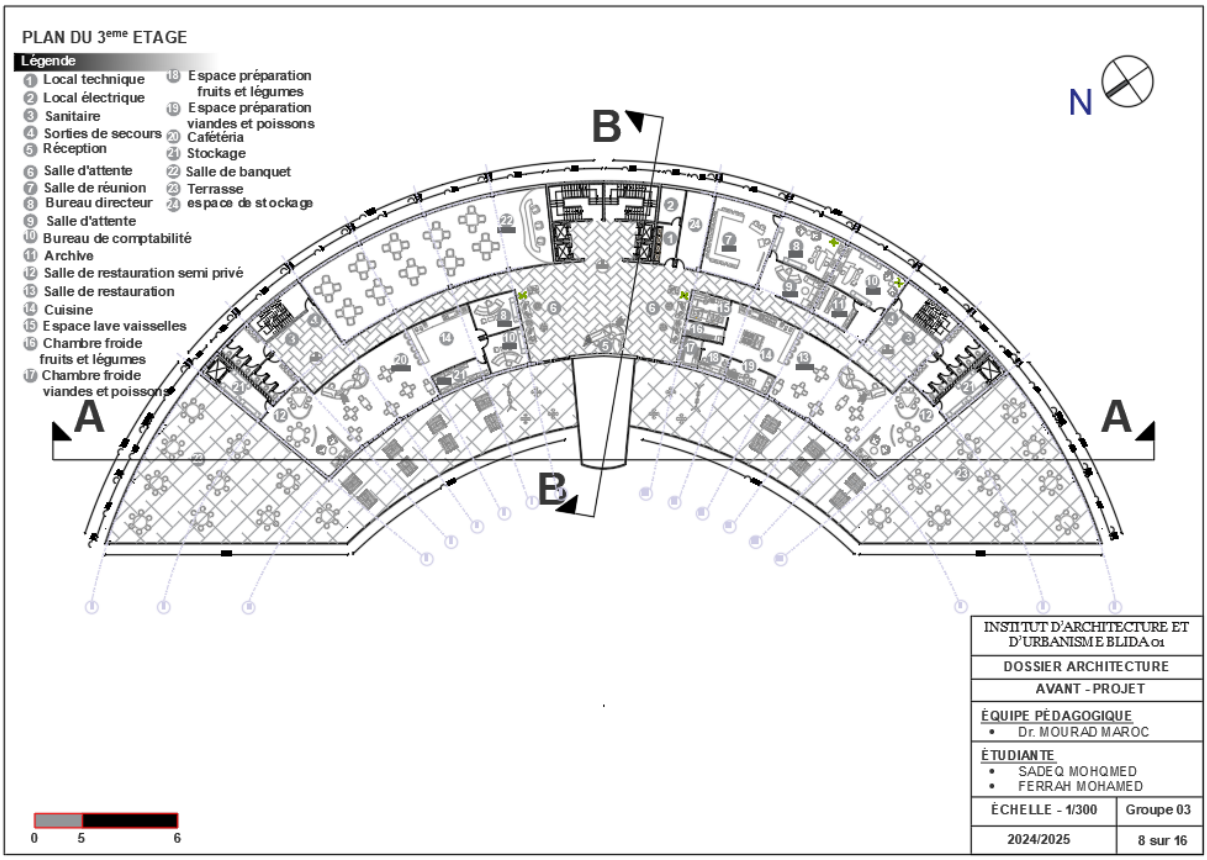

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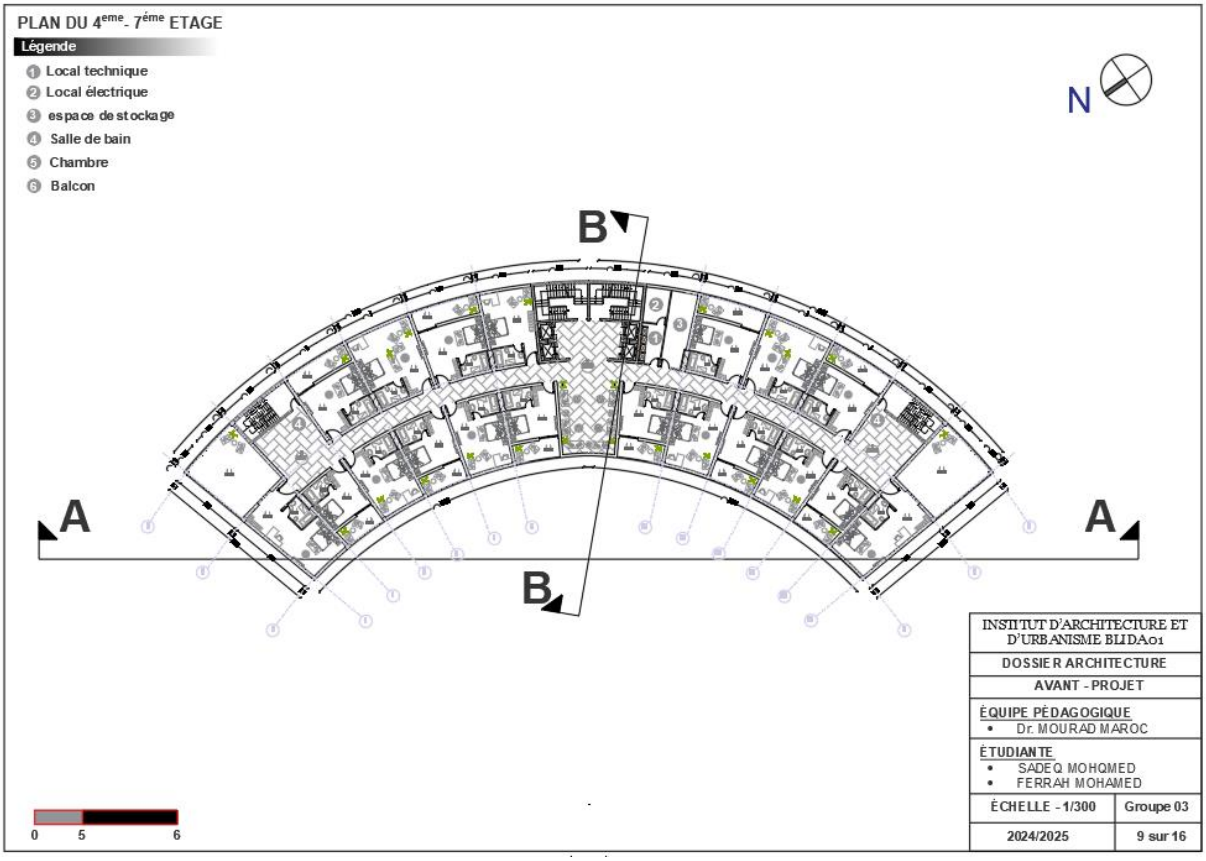

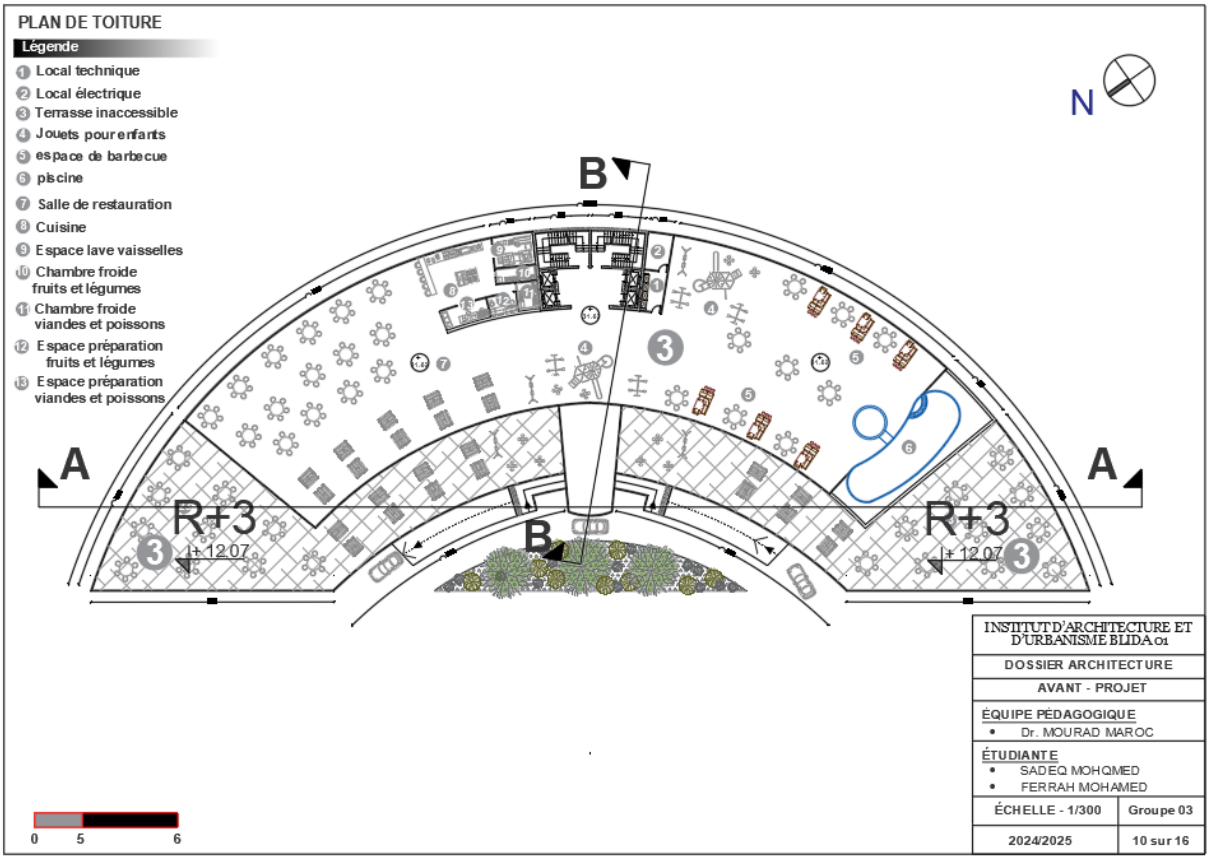

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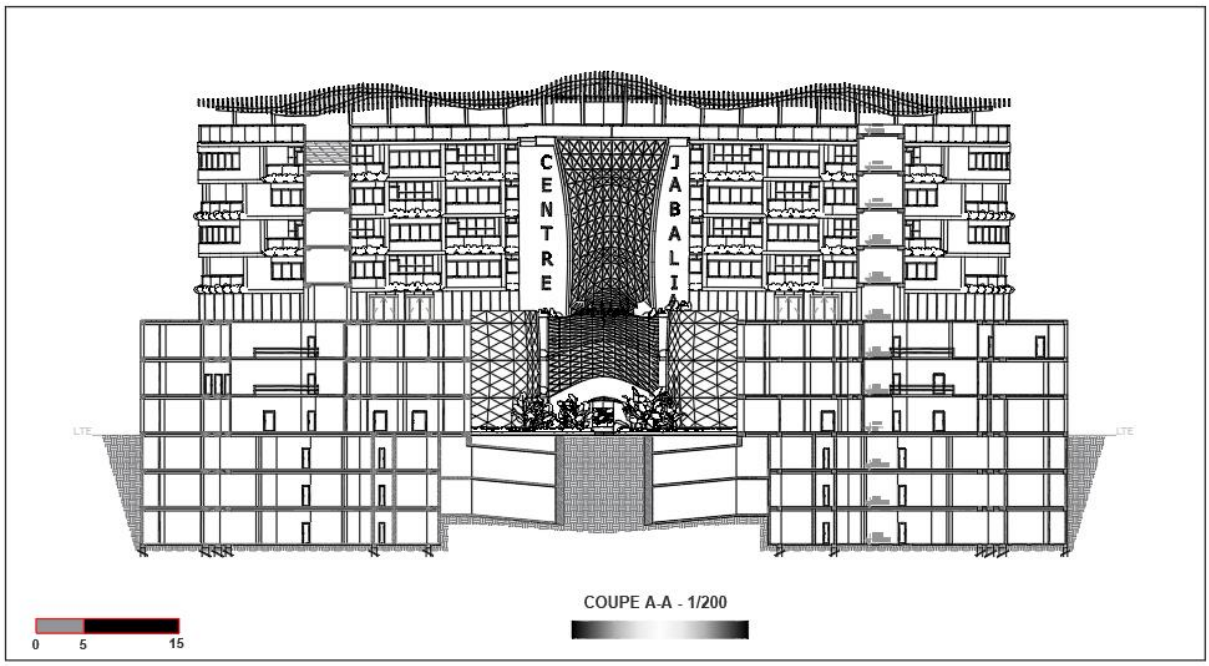

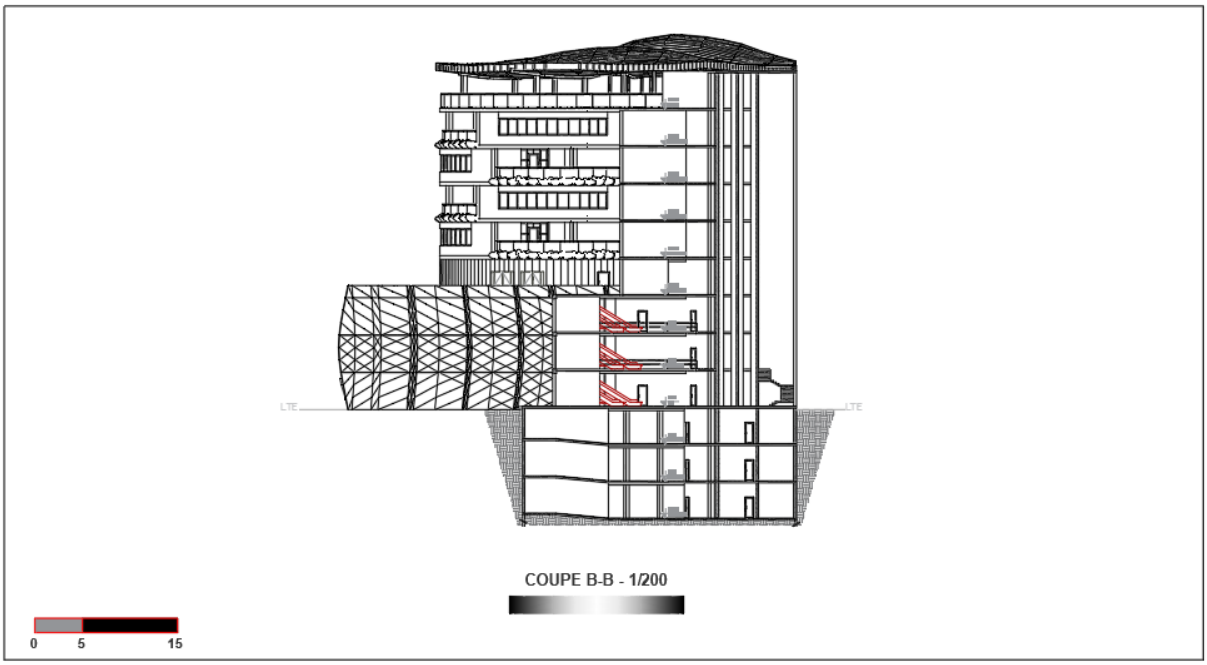

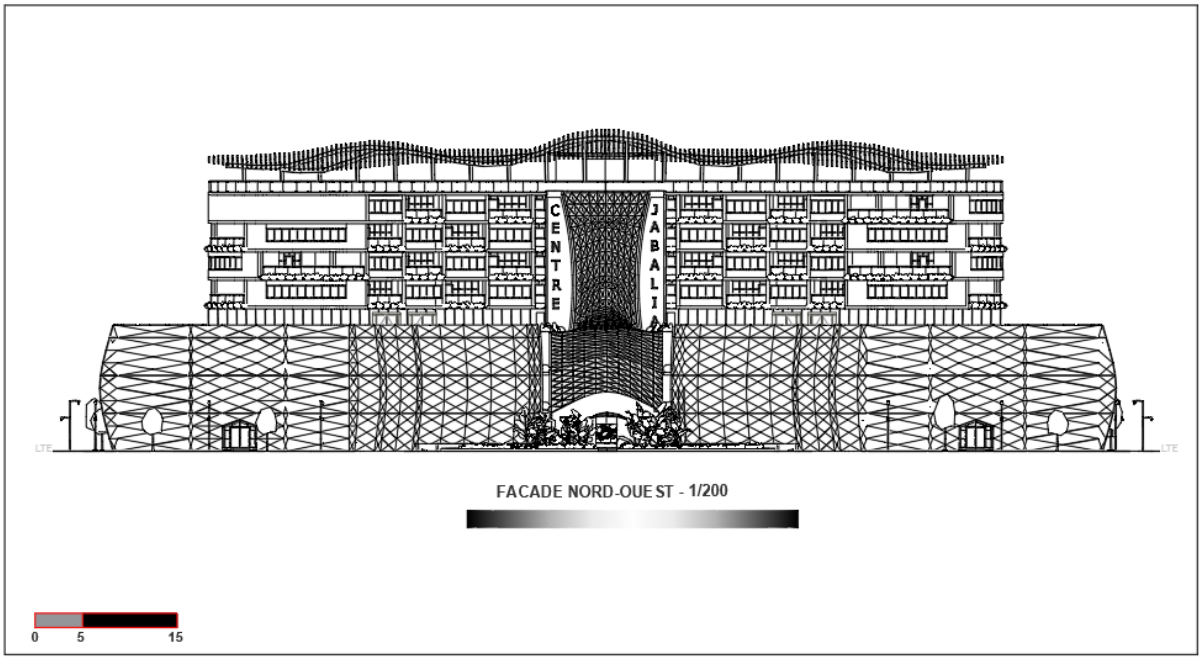
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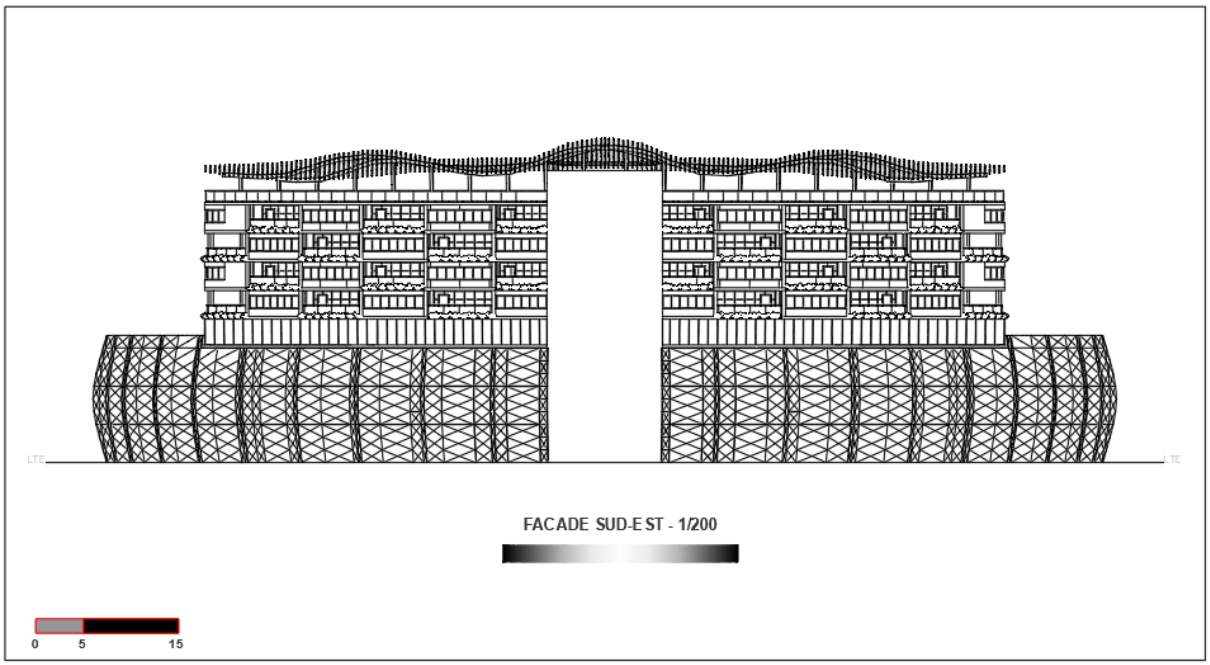
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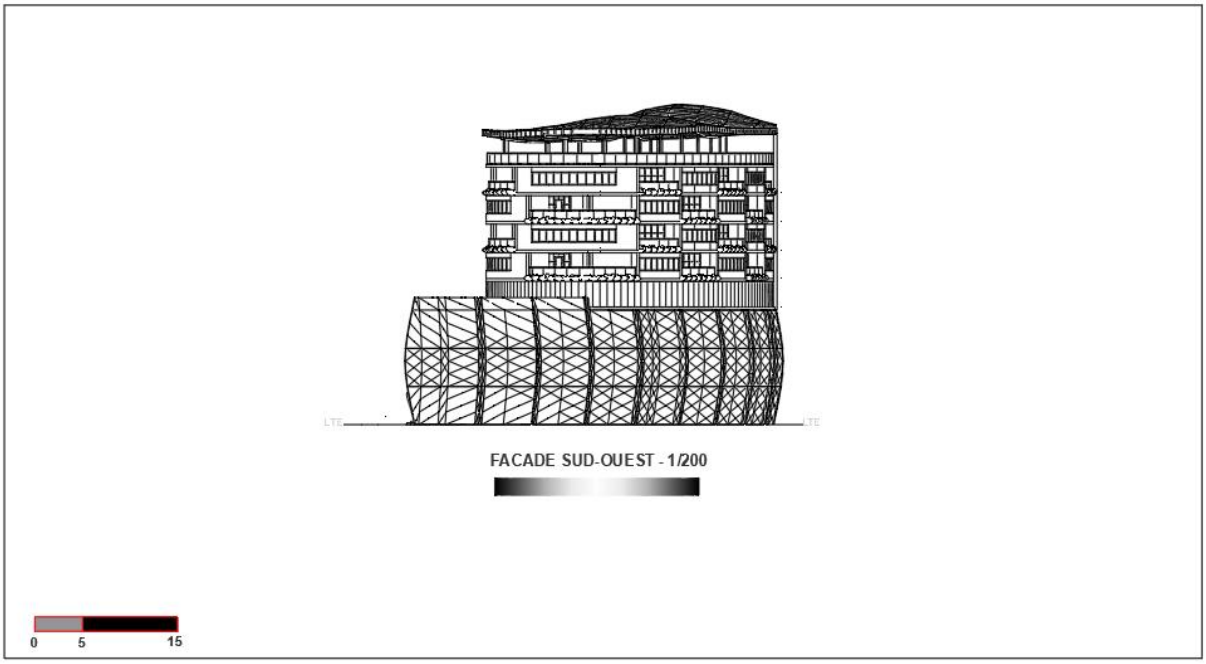
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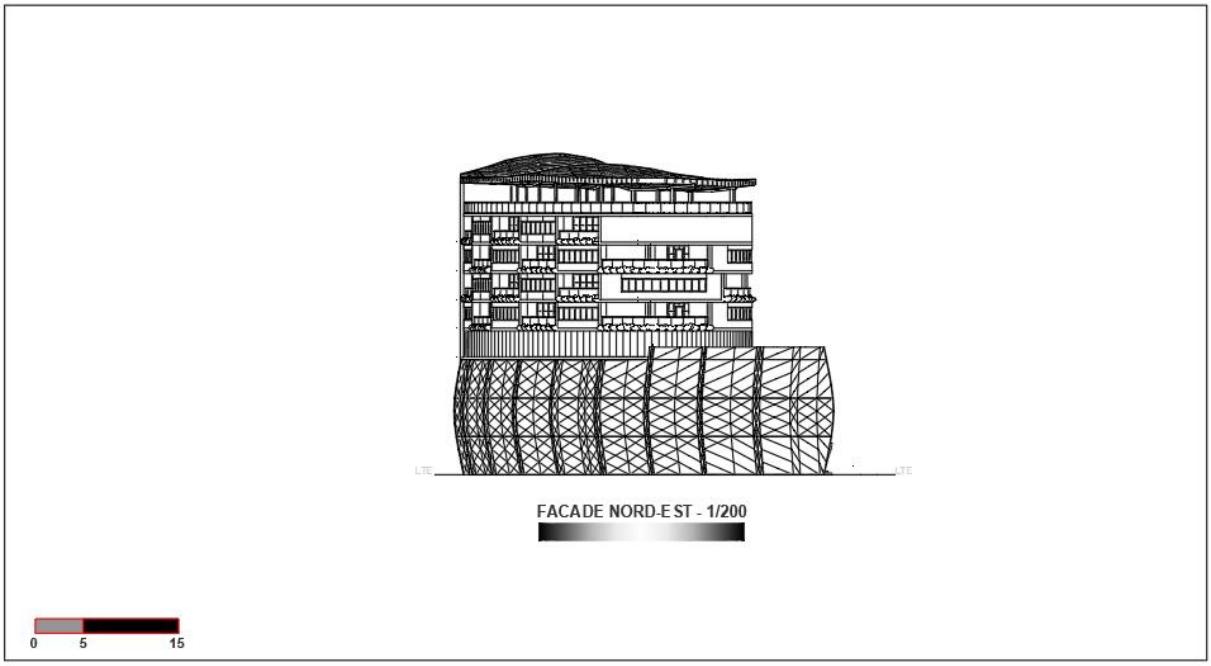
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4.4.9 3d Render:

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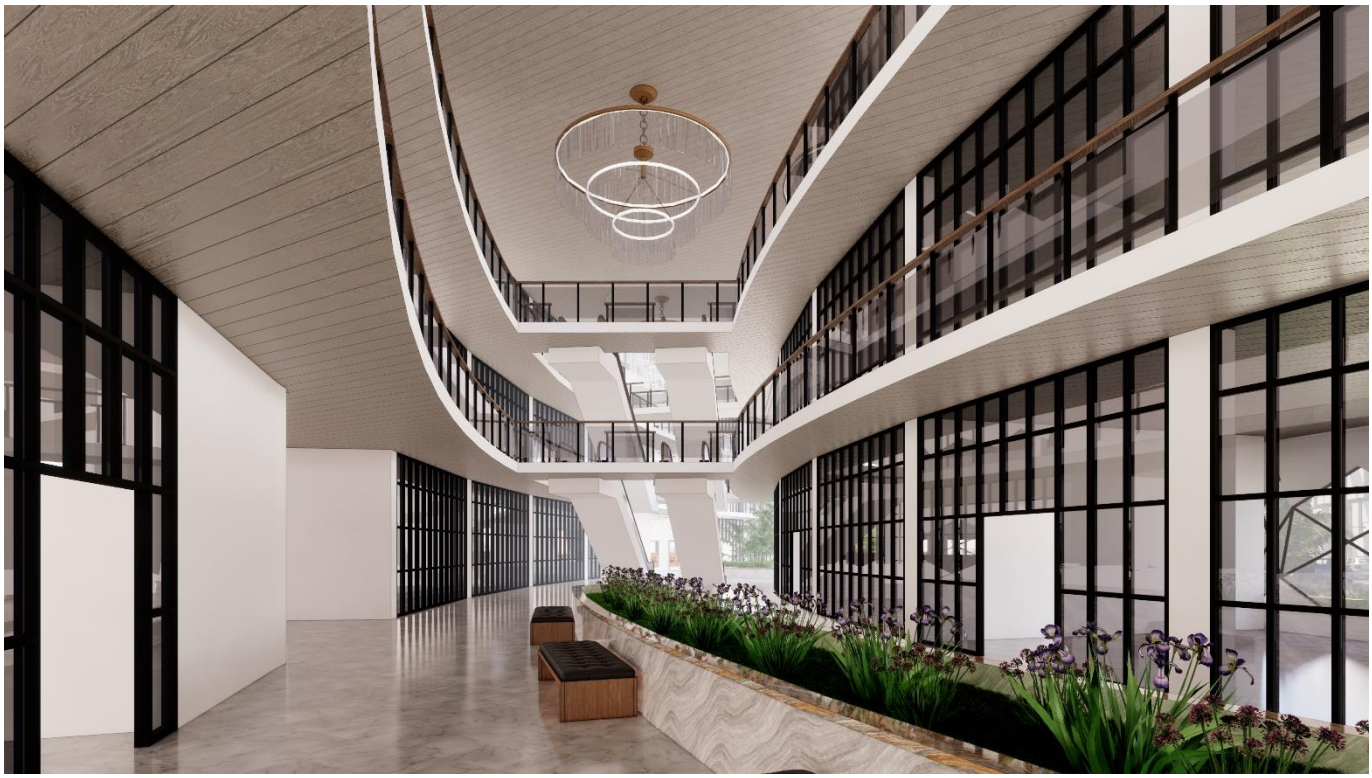

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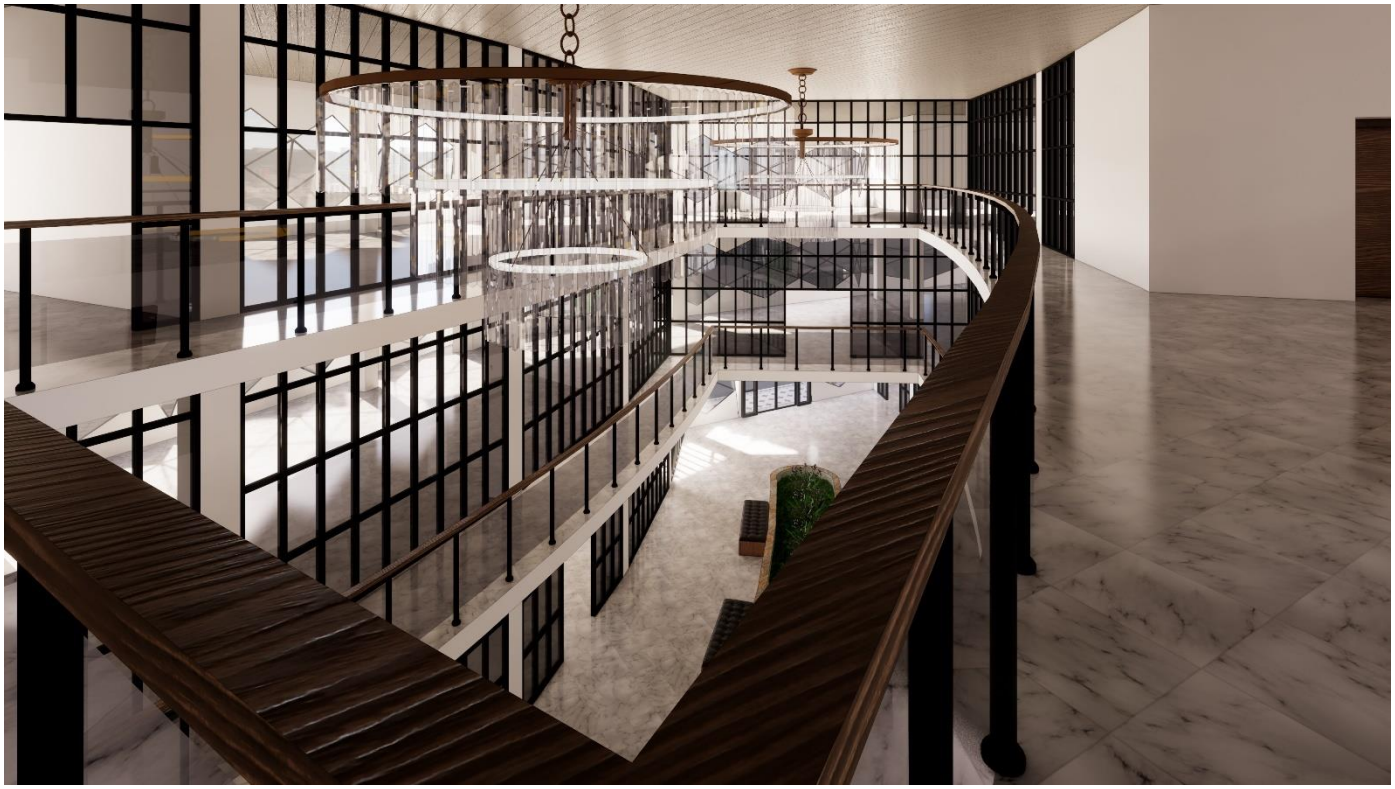

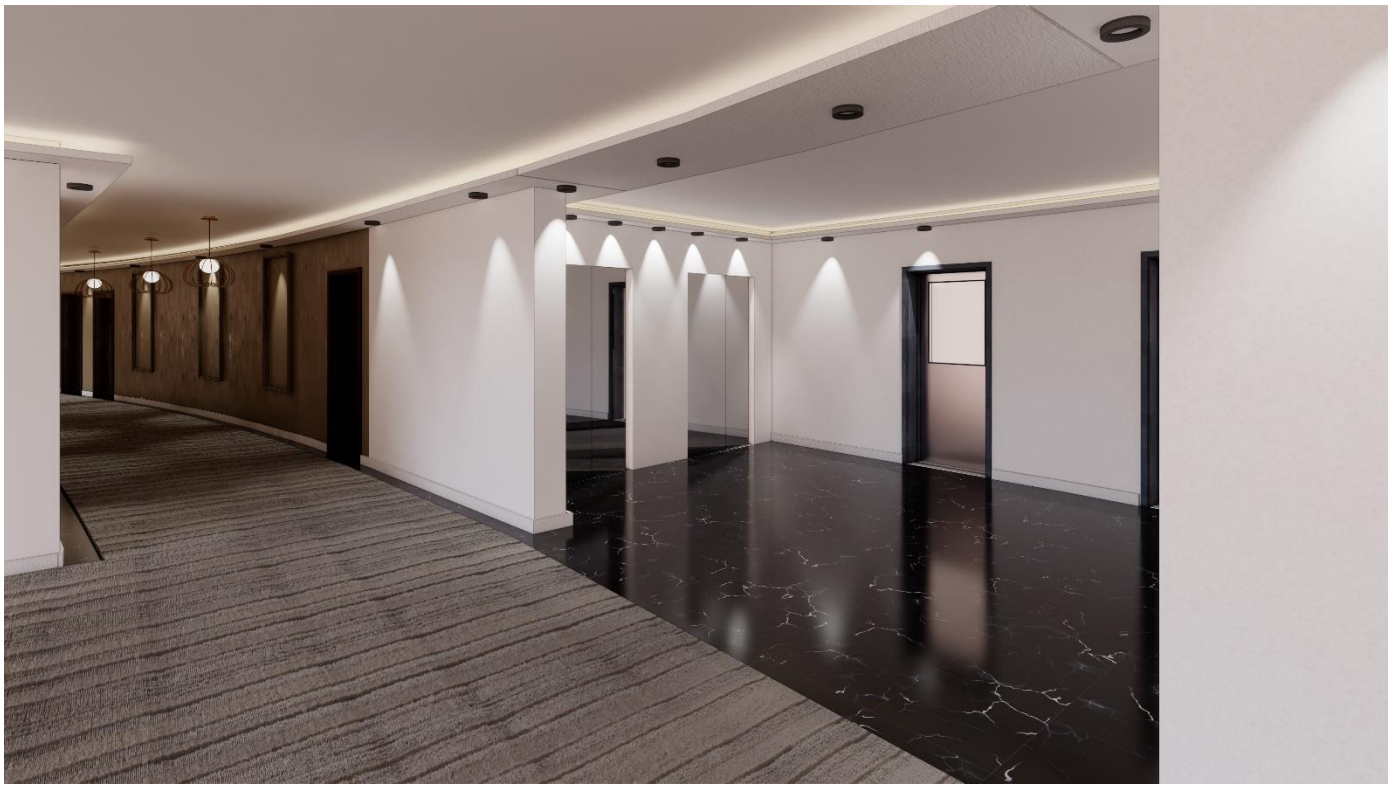

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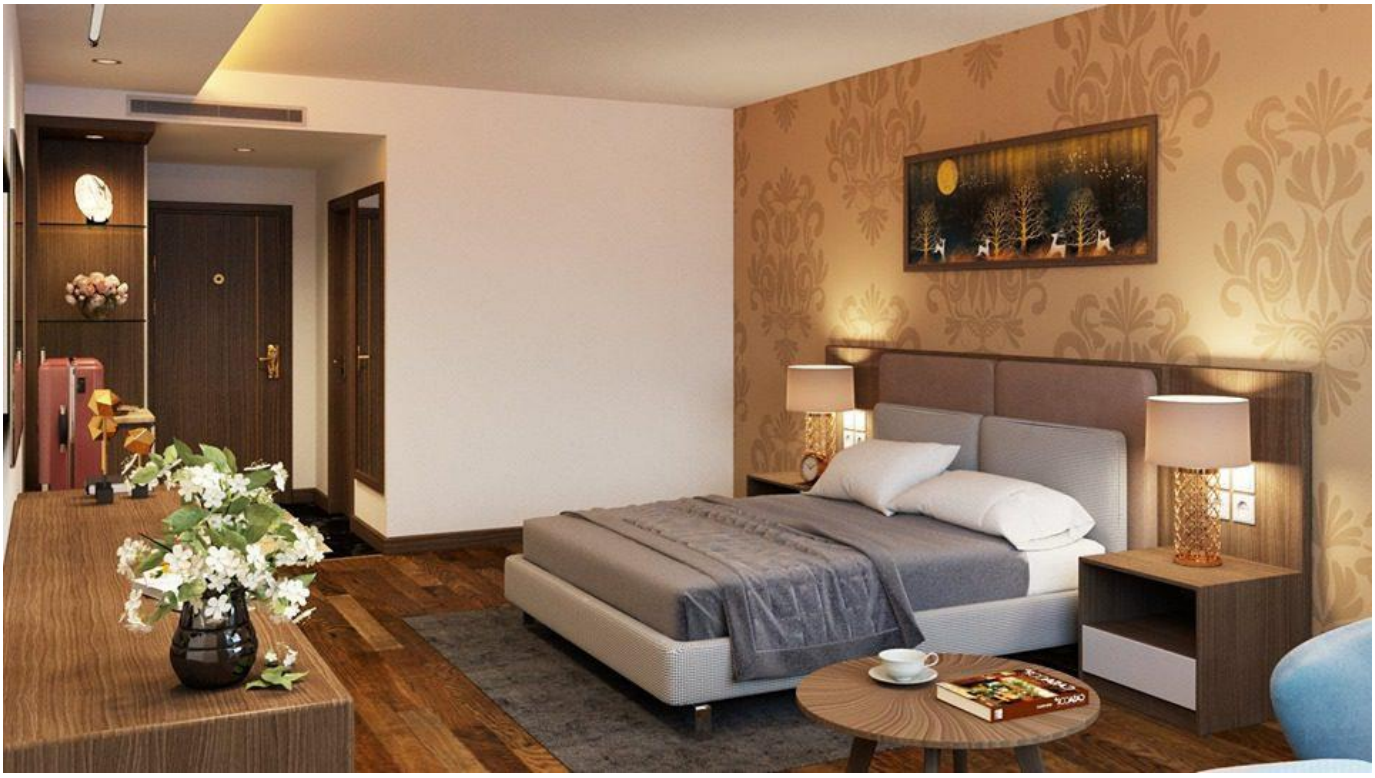

CONCLUSION :

through this study, it has been demonstrated that **secondary urban centralities** play a strategic role in the spatial and functional organization of the city of Blida. Although often relegated to a secondary position compared to primary centralities, these entities ensure a balanced distribution of urban functions, promote service proximity, and actively contribute to the structuring of the urban fabric.

By analyzing the road network system, the structures of permanence, and the various urban functions of the city, it has become clear that secondary centralities are not merely functional concentration points, but true planning levers capable of reducing imbalances, strengthening territorial cohesion, and supporting the dynamics of local development.

This, rethinking the role of secondary centralities in urban planning is a necessity to accompany the growth of Blida while preserving its identity and ensuring a better quality of life for its inhabitants. It is a major challenge for a more equitable, resilient, and sustainable urbanism.

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- https://lamacta.com/en/prix-immobilier/Blida-ben-khelil-centre-ville

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