

Architectural Types and the Impact of Urbanism Laws on the Urban Landscape: Case Study of Batna City – Algeria

Boudraa Hocem eddine ¹, Pr. Dib Belkacem²

^{1,2}University of Batna-1, Laboratory: (Child, City and Environment) Algeria.

Received: December 10, 2022

Accepted: December 29, 2022

Published: January 03, 2023

Abstract

This paper investigates various architectural types and their impact on Batna's urban landscape. This Algerian city has undergone historical, political, economic, and social changes that have contributed to the emergence of various architectural styles reflected in its urban landscape because stakeholders in urbanism seek to organise and promote it. This study investigates the effectiveness of the following laws in preserving architectural type and revitalising Batna's urban landscape. In this paper we have address the following:

- Presentation of the historical stages of the city of Batna.
- Presentation of the architectural models of the city of Batna.
- How building codes influence architectural conservation and urban modernisation.

Key words: Architectural type, urbanism laws, urban landscape, Batna city.

INTRODUCTION

Like other cities worldwide, Algerian cities have issues with urban landscape degradation. Regarding this, social, cultural, economic, and environmental factors affect their aesthetic stability, particularly during their formative years. Given that Algerian cities have faced numerous and diverse issues, the most significant is the disequilibrium in their urban landscape, which is caused by historical, material, and immaterial factors, including urban residents' persistence in illegal behaviour. Thus, the Algerian city of Batna represents a genuine aesthetic deterioration problem, reflecting its image and architectural standing.

Furthermore, Algerian cities experience urban landscape disequilibrium as a result of the aesthetic instability of the various architectural types adopted. It is due to several factors, including natural and social environmental factors; the historical phases that cities have undergone and civilisations have passed; and the architectural intellectual currents embodied in the schools of architecture that followed the industrial revolution. Using different architectural styles, in particular after independence, is governed by economic and social conditions, including rural exodus, land appropriation, and chaotic construction. These factors are manifestations of law-breaking and a lack of control over the organisation of the urban field, which is supposed to be effective in promoting the city's aesthetic aspect. Consequently, the study attempts to elucidate the impact of urbanism laws on the urban field and the different architectural types and their effectiveness in achieving objectives, including the promotion of the urban landscape of the city of Batna. From this point, we raise the following question:

Is There A Negative Impact on Batna's Urban Landscape Due to the Proliferation of Architectural Types and Non-Compliance with Legislation by City Stakeholders?

Research Hypothesis

Whenever city stakeholders adopt different architectural styles and do not follow legal procedures, the urban landscape in Batna is disrupted and not brought up to speed.

Study Objectives

The study attempts to identify the following:

- The negative aspects of adopting various architectural styles and their impact on Batna's urban landscape.
- Figuring out the potential of urbanism codes to protect and promote Batna's landscape.
- Recognizing local stakeholder's opinions regarding various architectural uses and the applicability of legal provisions to level Batna's urban landscape.

Study Approach

To attain the research aims a descriptive analytic approach was adopted.

The Descriptive Analytical Approach

The analytical description has been adapted as a research approach concerning the study of actual phenomena and their precise description expressed in two aspects: Qualitatively, by outlining and elaborating on its characteristics; quantitatively, by providing a numerical description of the quantity of the studied phenomenon or the proportion of its association with other phenomena. This approach is regarded as one of the fundamental research methods, possibly due to its widespread application in various studies and research projects, such as the urban landscape issue.

The Study Spatiotemporal Data

This study was performed in Batna, a developing city situated in the east of Algeria. It represents an important pole thanks to its social, economic, and urban development, as well as the regional functions it performs.

Several field visits were carried out from December 2021 to May 2022 to inspect the condition of the study area, Batna as a template. In addition, the researcher prepared and tested the questionnaire as part of the survey. In addition, the research sample was identified from specialists, academics, scholars, and experts in the architectural style field in the six months before the actual application, including the modifications to the questionnaire given the many difficulties.

First: Theoretical Part

The researcher attempted to present a selection of concepts and ideas on architectural style, urban law, urban landscape knowledge, and ways to perceive it.

Architectural Type

It is a mental image representing a group of formal relationships characterised by ambiguity and continuous change in history; this type is generally associated with intellectual, social, and spatial data over a period of time (Argan, Giulio Carlo, 1963, p. 564). In the perspective of De Quincy, type is a principle that leads to the process of creation and formation under the assumption of the concept of the ideal, unaware, intangible, and invisible pattern, which has no secondary versions but is nonetheless the representative form of the principle or idea of the building. (Vidler Anthony, 1998 P449) From this perspective, "the type is to infer the superposition of familiar knowledge with particular characteristics and individual building observation."

It is a common core that connects to the element and alludes to (illustrate a portion of the historical situation in the context of current architectural knowledge). It is defined by Argan as "a general perception of a fundamental form including a set of formal relationships; this general perception can be reflected in endless architectural examples based on the architect's vision, but it is ultimately compiled by single formal laws" (Argan, Giulio Carlo, 1963, p. 564).

The Urban Landscape

It is defined as the organisation of the physical elements of the city environment, which crystallises the integrated sensory image of the relationships between the elements, giving the area its distinctive urban character. It is based on a series of determinants and design elements (Cullen G., The Concise Townscape, 1961, p. 1–3). All that appears in the city, the eye sees it, the senses perceive it, and the body interacts with it through the mind of unity, the importance of place, and the sense of human experience through several concepts such as: Conformity, integration, and the sensorial and visual organisation (Cullen G., The Concise Townscape, 1961 p.1-3).

The urban landscape is the integral version of the sensory and visual effects of the city component, formed by the method of interdependencies and massive and spatial treatments, differing from one environment to another depending on the society's nature. The basic inputs of the urban landscape are spatial, physical, and behavioural components, and it is the result of the relationships between buildings and spaces and between buildings to include the city as a whole, namely what the human eye sees in the city and how the senses perceive and interact with the urban environment. (Wasit journal of engineering science, Sbih, P 180, 2016)

Furthermore, the urban landscape is defined as a zone of separation between individuals and society that allows interior and exterior spaces to coexist and interact. In other words, it is the live image of the city that individuals construct in their minds as a result of its morphological formations and physical characteristics, which are a reflection of its history as a result of its natural, cultural, ideological, and technological advancement over time.

Thus, the five elements (sections, nodes, landmarks, edges, and paths) are linked to one another by clear relationships that are perceived as a structure by the recipient. Therefore, the physical elements and their structural characteristics contribute to the personality of the place called "identity."

There are two essential criteria for an urban landscape:

The first is a sense of place, and the second is a sense of unity, where you perceive the city as an integrated whole in which each area leads to another and not as separate, unconnected parts. (Wasit journal of engineering science, Sbih, P 180, 2016)

Gordan Cullen's theses on the Urban Landscape

Cullen emphasises that the organisation and sense of the urban landscape are linked to the overall organisational vision of all urban elements combined, rather than just the architectural aspects of buildings, declaring: "In the independent building, we explore the beauty of this architecture, but in the collection of physical elements: buildings, trees, water... we explore the beauty of the art of the relationship between these elements to give a humbling scene." (Gordon Cullen and the "Cut-and-Paste" Urban Landscape, Miriam Engler, P21, 2016)

Broadbent's theses on the Urban Landscape

Broadbent recognises the urban landscape as having two types of components: The first type includes physical components related to the whole (or general body.) The second type includes cultural components related to Due to its familiarity, the first type is manageable and orientable. Instead, the second cannot be controlled because it is related to aspects of uniqueness, harmony, and compatibility with the whole and because of its relationship with the recipient's ability to perceive and interact with the whole. (Philosophy Journal, Kazem Mohsen, P110,2016).

Following a review of the preceding theses, the urban landscape can be defined as the feeling that expresses the organisation of a group of elements and components of the city's physical urban space, producing a sensory image that highlights the relationships between these elements, showing us the space or space by the nature of the place. And when such elements are harmonious, coherent, and regular, we get a beautiful and integrated image of the city's space.

Urbanism law

Urban law is one of the recently integrated branches of administrative law. It first appeared as an autonomous concept at the beginning of the twentieth century and later expanded to include all studies relating to the intervention of public persons in the use of land and the organisation of spaces in the urban environment of residential, rural, and civil agglomerations. (**Couteux Pierre Soler, droit de l'urbanisme, Dalloz, 2000, p 30**). As a result, it is necessary to clarify concepts related to this law. Thus, we will attempt to define urban law, its characteristics, and its objectives to study the relationship of urban law with some other similar branches of law.

It is a legal instrument that allows the elaboration or identification of pre-studied urban policies and includes most institutions subject to laws and regulations related to the planning, urbanisation, and creation of cities. Its objective is to organise public life to guarantee the public interest and includes controls on the construction of buildings and various urban facilities (nature, architectural form, dimensions)

Algeria went through several phases, each with its own set of urbanism laws, the most notable of which are as follows:

1. Law 82-02 of 26/02/1982 relating to the building permit and the retail permit
2. Decree 85-211 setting the conditions for issuing the building permit and the subdivision permit for land intended for construction. Decree 85 212 determining the conditions for the regularisation of construction that does not comply with the rules.
3. Law n°87-03 relating to land use planning.
4. Provisions of the French decree dated 31/12/1958
5. Law n° 25-90 of 18/11/1990 on land orientation, introducing new instruments for regulating land activity.
6. Executive Decree n° 91-175 defining the general rules for development, town planning and construction.
7. Executive Decree n° 91-177 establishing the procedures for the development and approval of the master plan for development and urban planning.
8. Executive Decree n° 91-178 establishing the procedures for the development and approval of land use plans.
9. Executive Decree n° 91-370 establishing the organization and operation of the committee for architecture, urban planning and the built environment.
10. Law n° 02-08 relating to the conditions for the creation of new towns and their development.
11. Law n° 08-15 laying down the rules for compliance of constructions and their completion.

The organisation and management of the urban field depend on a complex and interwoven legal arsenal in many areas, directly and indirectly, related to planning and reconstruction. Thus, it complicates the question of its limitation, given the dispersion of legal texts related to the aesthetic aspect of the city.

Secondly: Practical Part

The City of Batna

The Study Area: City of Batna

The site of the city represents its geographical location in its region. The city's localisation shows its importance through relations linking it to the neighbouring territory, commercial exchanges, and other elements of its strategic and territorial dominance. (Merlin et Françoise Choay 2005, P. 830.)

Batna city is located in the north-eastern part of the Wilaya, within the mountainous massifs of the Tellian Atlas and the Saharan Atlas

Site

The site is defined as the place on which the city is based and is related to its topographical characteristics. Location determines the city's shape and the future path of its growth and expansion (Sabri Fares Al-Hiti, Salih Fleij Hassan, Geography of Cities, 2000). In addition, the site is linked to the study of various natural phenomena related to the topography, slopes, and water network (Sabri Fares Al-Hiti, Salih Fleij Hassan, Geography of Cities, 2000, p. 103).

The city of Batna is situated on a flat plain area within a turbocharged basin between 1030-1050 m above sea level. Because it is surrounded by mountains, it has become an estuary for the valleys, which penetrate from east to west with the Batna Valley to form the canyon of Al-Qazi, which originates from the tributaries of Mount Tauqar west.

Batna's Urban Development and its Relationship to the Evolution of Legislation and Reconstruction Mechanisms

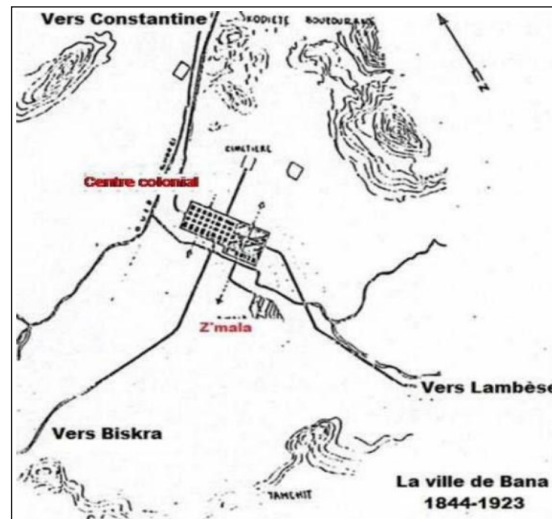
Batna is a city of modern "colonial" origin. It was created to link the cities of Biskra and Constantine as part of a campaign by the sovereign "Duc D'aumale" to reform matters in the Zibans (Boras Shéhérazade, 2001). In 1844, a camp was established in the town as a departure point for other regions. The city was named "New Limbaz" by a decree issued in 1854. However, this name was replaced by "Batna," referring to the word "Patna" in Arabic, which was supposed to mean overnight (Al-Hadi Saidani, Guide de Batna et de la région des Aurès, 1980, p. 21). Following that, the city evolved through different phases. Furthermore, the urban development of Batna can be divided into two major phases:

The First Phase: The French Colonial Rule

Divided into four periods:

From 1870 To 1844

This period saw the emergence of the first core of Batna city by the French occupation in 1844, where it settled. The military district known as “CAMP” was built and structured on two main axes: “Street of the Republic” and “France Street.”



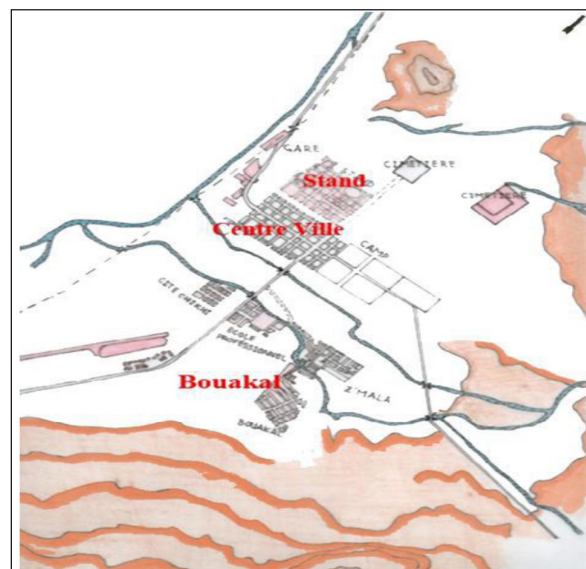
Map 1. The first core of the city of Batna Overseas archives of castles of Vincennes (Paris) France 1848

From 1871 to 1923

The city began to expand as its area reached 26 hectares (the master plan for planning and reconstruction 1998, p. 92) and several facilities were signed, as shown: Two schools, a market, a theatre, the municipal headquarters, a Christian cemetery, and a court

The streets “France” and “Mosley” were important in the city’s structure, and the city was divided into two major areas, between which the Batna Valley:

- The colonial core from the northern side of the camp.
- The Al-Zamalah quarter on the southern side represents the traditional quarter.



Map 2. Plan of the city of Batna 1870 Overseas archives of Vincennes castles (Paris) France year 1844-1923

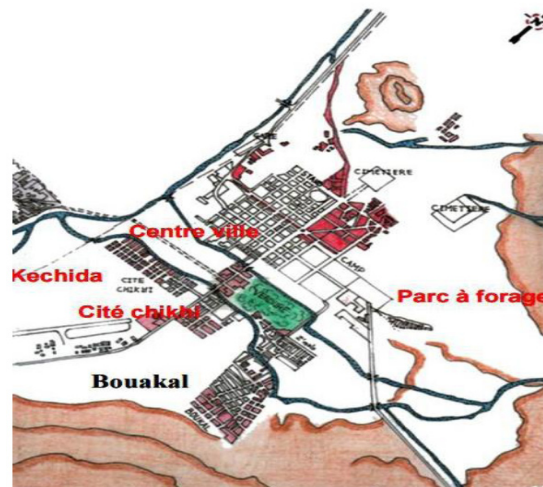
From 1924 to 1945

Because of the high level of completed projects and facilities, Batna had become an administrative and commercial centre by this point. These included the “Tvert” railway station project, which ran from the north to the southwest of the military core and attracted many settlers. Aside from the completion of a military airport. In 1925, 11,000 inhabitants were registered (General Census of Housing and Population, National Office of Statistics), rising to 15,000 inhabitants (General Census of Housing and Population, National Office of Statistics) in 1944. These new data resulted in the city’s surface area increasing to 150 hectares and the building movement expanding in different directions, with the emergence of new districts represented in:

Northeast direction: The STAN quarter along Moseley Street.

Northwest direction: The “impound quarter” (quartier fourrière) appeared near the train station.

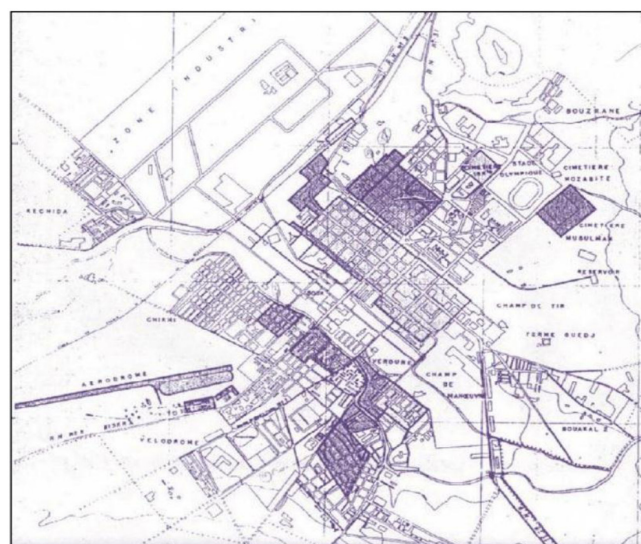
Southern direction: Through the first buildings emergence in the independent quarters “Boaqaal and Sheikhi”.



Map 3. Of the city plan of Batna 1923, Overseas archives of Vincennes castles (Paris) France year 1844-1923

From 1946 to 1961

This period coincided with the 1954 Liberation Revolution and the resulting rural exodus from the countryside to the cities to escape the occupation’s oppression. In addition to the Constantine project’s launch in 1958 and the occupation’s projects, which had a significant impact on the urban area. Furthermore, the administrative independence of Batna from Constantine resulted in the city’s expansion and the formation of other quarters. (Guideline for Development and urbanisation, Phase I, Batna, 1998, p. 122)



Map 4. Of the city plan of Batna 1962, National Agency for Territorial Development 1994- Biskra

Post-Independence Phase

From 1962 to 1973 (An Interim Period)

It was the start of the independence period, during which a radical change occurred in all of the country's political and economic conditions in general, and in Batna, one of Algeria's cities, in particular.

In the first part, we discussed the state's priorities during this period, which prioritised political stability and economic development over urban concerns. This situation has had a direct impact on the city of Batna, which has not experienced significant urban development and has been limited to the continued growth of previous quarters chaotically and randomly. At this phase, the city received a particular Auras programme in 1968, including several housing projects (375 housing units) and other infrastructure projects, among which the Batna industrial zone emerged (Ahmed Muhammad Boudraa 1989, p. 159). These projects increased the number of residents and housing units, and the city's land area has grown to 1,227 hectares (Development Plan, Phase I, Batna, 1998, p.124).

From 1974 to 1984

Batna received its first urban project in 1978, following the implementation of Directed Urban Planning (DUP) in Algeria in 1974. One of the project's main objectives was to identify the city's expansion zones, which included three (03) sectors:

- Sector 1 (North-East): It includes the military zone with a land reserve of 243 hectares (long term), in addition to the extension of the "Parc A forage" quarter (short and medium term).
- Sector 2 (South and South-West): New urban housing areas (ZHUN2, ZHUN1).
- Sector 3 (North-West): The industrial zone expansion spans a surface area of 22 hectares.

As a result, several projects planned as part of Batna's Urban Plan have been integrated, including:

*Housing allowances 1.308 plots. (The master plan for planning and development, first phase, Batna, 1998, p. 98)

* Cooperatives: 21 cooperatives with 535 plots. (The master plan for planning and development, first phase, Batna, 1998, p. 98)

* Group housing: Represented in the two new urban residential areas (ZHUN2, ZHUN1) with 3,094 houses (The Master Plan for Planning and Development, the first phase, Batna, 1998), in addition to the 742 quarter.

The Period 1985-1994 (Saturation of the Urban Fabric and New Urban Legislation)

The city of Batna kept growing haphazardly in 1985 despite efforts by the concerned authorities to correct the errors of the previous era and to create another urban plan. In addition to the haphazard expansion of previous quarters, new ones were created, as represented by: The two quarters, Tazel and Awlad Bashina, which bring the area of the city to 3,383 hectares. In addition, this time frame coincides with the adoption of Law 29/90 on planning and development, from which the city of Batna benefited by receiving the first planning and development master plan that covers all municipalities:

Batna, Fasdis, Tazult, Oyouun al-Asafir, and Wadi al-Shu`bah. However, due to the difficulty of implementing the concept of an urban plan for a group of municipalities, as well as other political and administrative reasons, the study was cancelled.

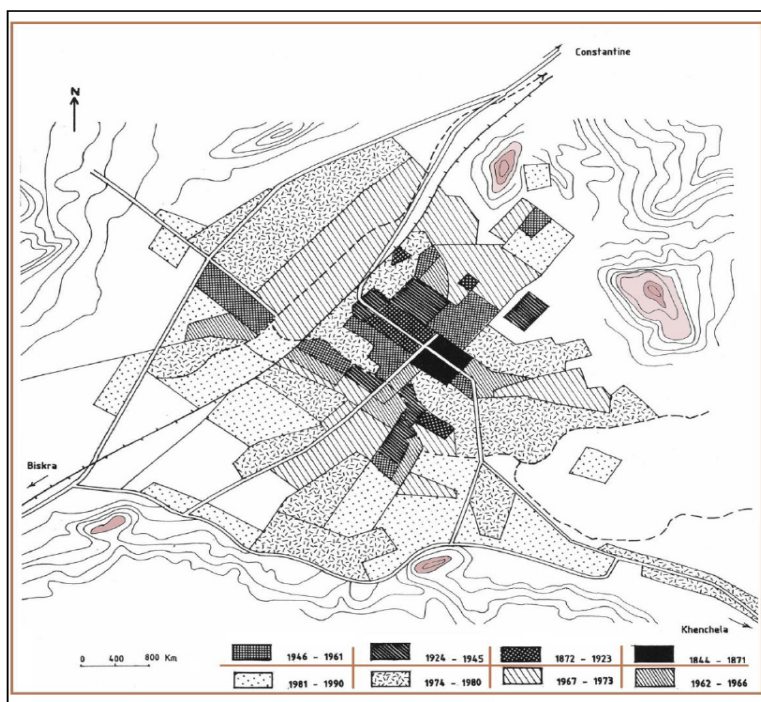
The Period 1995–2005 (First Experience of Applying Planning and Reconstruction Tools)

In 1994, the said urban plan was replaced by the master plan for planning and development, which is specific to the city of Batna. This plan was not approved until 1998, when significant urban and economic development objectives, as well as new opportunities for growth in the short, medium, and long term, were identified. Furthermore, this programme represented the first applying development experience and reconstruction plans on the ground. However, the future estimates of this programme, estimated at 20 years (until 2008), and were not appropriate as usual, as most of the urban areas specified for future expansion were exhausted before the indicated timeframe. As a result, new chaotic quarters appeared, exemplified by the Arar (Constantine Road) quarter, and several other problems.

The Period 2005-2011 (Revision of the Master Plan and Emergence of Urban Centres)

In 2005, a study was registered to revise the master plan for urbanisation and reconstruction, which comprises seven (07) communes, including: Batna, Fasdis, Wadi al-Sha`bah, Tazult, Oyouun al-Asafir, Syriana, and Germa.

At this phase, the most important point to mention about the development of the urban fabric of Batna is the emergence of new urban poles, creating both the new countryside pole (with a residential destination) and the Fesdis university pole (with a scientific orientation), as both were created to empty the population and the facilities. This new policy has not only been applied to the city of Batna but has also been extended to many Algerian cities.



Map 5. The evolution of the city of Batna M. Cote, « Batna », Encyclopédie berbère [En ligne], 9 | 1991

A DESCRIPTIVE-ANALYTIC STUDY OF ARCHITECTURAL TYPE IN THE CITY OF BATNA

Dominant Architectural Types in the City

Batna is classified as a colonial city centre. In this study, we looked at one of the city's urban facades to learn about the dominant architectural type. In this regard, I chose various facades from different quarters throughout the city to identify the dominant architectural types in the city's overall landscape.

A section of the urban facade of "Street of Republic" (Constantin Road) has been chosen to run along the intersection of "Street of Republic" and "Street of Independence." They represent the two main axes of the city of Batna.



Photo. depicting the study's urban facade, researcher



Plan 1. The studied urban facade, researcher 2022.

Observing the general plan of the urban facades, the following has been noticed:

- Colonial architecture accounts for 80% of the study's facade.
- Changes in facades, such as new building materials and facade reconstruction.
- A house was demolished and rebuilt.
- A four-story collective building.
- Stores on the ground floor of all of the buildings.
- Stores renovated with new building materials.



Plan 2. Represents the studied buildings rebuilt after independence,

- On the right of the plan, the building is a collective housing, built at the colonial period with architectural features of modern architecture.
- In addition to a self-build model represented in the newly constructed building after independence



Figure 4. Represents the architectural types of the studied facade

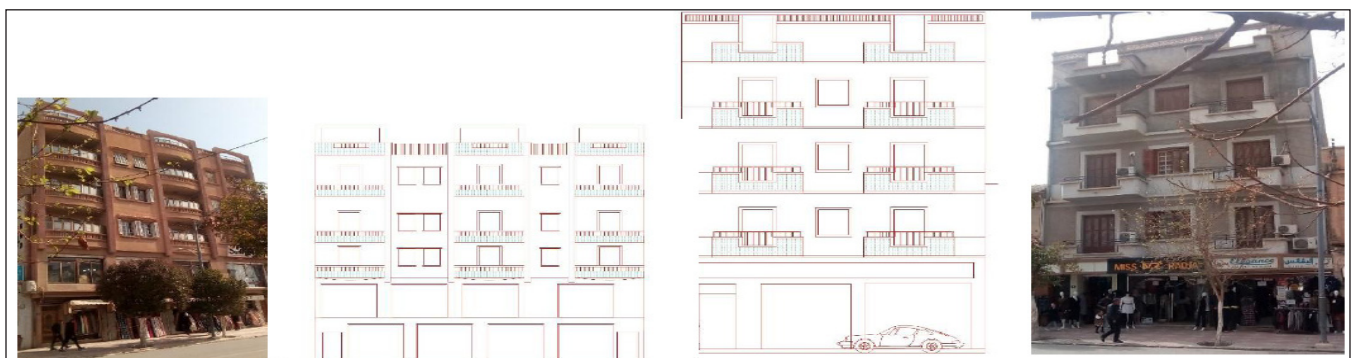


Figure 5. Represents the studied self-build models, researcher 2022

Colonial Neoclassical Architectural Type

The regional theatre in Batna is regarded as an example of neoclassical architecture, and it is one of the city's oldest structures, having been built in 1890 after JC and serving primarily as a venue for celebrations and weddings before being designated as a regional theatre by Ministerial Order No. 85-172 dated 29 Ramadan 1405, corresponding to 18 June 1985.

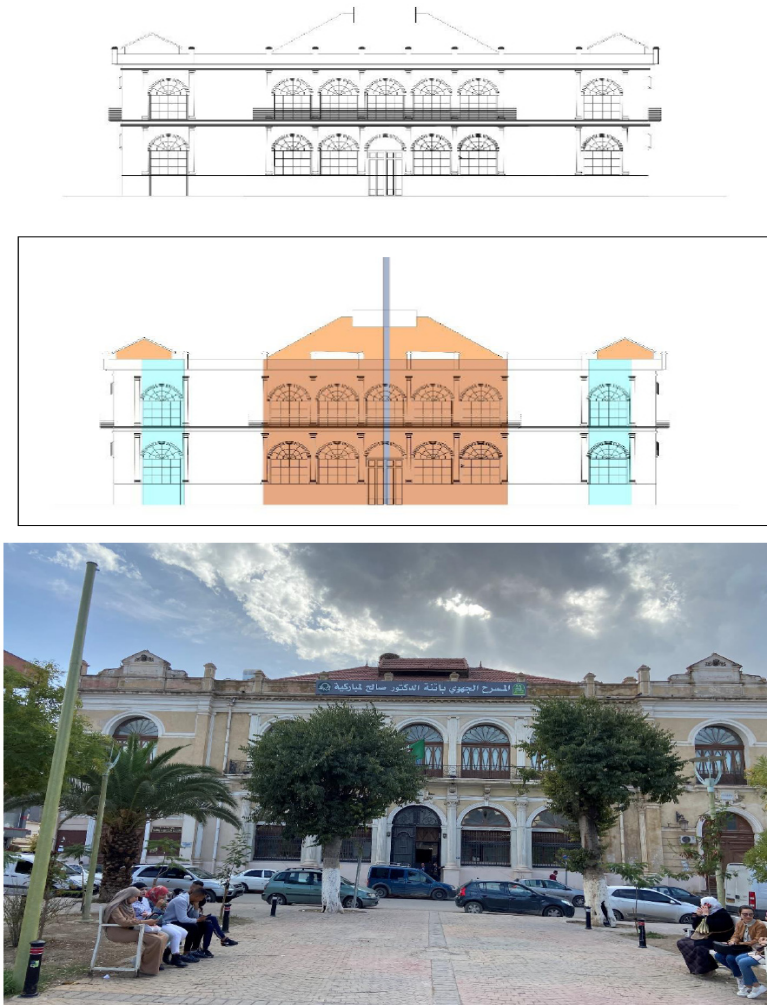


Figure 6. Regional theater of Batna- Researcher 2022

The Architectural Characteristics of the Neoclassical Type

- Central symmetry;
- Rhythm in the facade;
- Use of architectural elements to embellish decorative elements;
- Use of Roman columns as a model of power and dominance;
- Large doors and windows (grand scale);
- Use of iron and wood stones as the main building materials;
- Cornice.
- Corbel;
- Arcades;
- Foundation: The lower part of the walls of a construction resting on the foundations of a building.
- Ground floor: The ground level, it is usually the store or garden of the house.

- ROOFS: The building's cover, which has a sloped ceiling and is made of bricks in each of the buildings.
- Balconies: They are openings in the interface that feature a vertex and vary in location.
- Guard Barrier: Made of iron, it is an architectural element that distinguishes classic and new-style facades and is made of iron material.
- The quoins

Modernist Architectural Type

At the end of the 19th century, modern architecture began to take shape as a result of developments in science, engineering, and construction materials as well as a desire to depart from conventional and traditional architectural styles and produce something entirely new and useful.

Modern Architecture Characteristics

- Remove all building decorations;
- A more rational architectural style, based on modern life;
- The use of modern building materials, such as reinforced concrete and iron, and the column system instead of the load-bearing wall;
- Vertical construction
- Large transverse openings.



Source: Researcher 2022



Source: Batna achieves.

Self-Build

Self-build is one of the widespread models in the city of Batna, characterised by advantages and features directly reflected in the urban landscape of the city. Among these characteristics are:

- Spontaneity in construction and use of modern building materials (reinforced concrete and bricks)
- It is characterised by simplicity, repetition, and the use of the ground floor as shops and garages.
- Uncompleted construction and the building remains unfinished.
- The self-build is a hybrid model, we notice the presence of a set of architectural elements inspired by different architectural styles.
- It represents a facade reflecting the functional activities within the building.
- It lacks the architectural elements characterising the city.



Source: Researcher 2022 Self-build in most residential areas.

STUDY OF THE DIFFERENT BUILDINGS IN BATNA PROMINENT URBAN SECTORS

In order to study the architectural models, present in the city of Batna, they should be compared according to the architectural and construction data of these buildings, as following:

Architectural Elements





They form the functional or decorative parts of the arch, lintel, column, wall, dome, staircase, portico, and partition; which are architectural elements used by architects developing architectural spaces.





Structural System

The structural integrity of the building is dependent on this area of the structure because it receives and transmits both internal and external charges. Depending on the type of building, its geographical location, and its function, various structural systems are used in buildings, such as the structural system, the system of movable walls, mixed systems, and high-rise construction systems.

Building Materials Used

Building materials are the essential components used in the construction process in general. They are a collection of materials and components that must be proportionally mixed, including liquid and solid materials in specific amounts.

Buildings	Architectural Elements	Structural System	Building Materials Used
 tazoult street	<ul style="list-style-type: none">-Inclined Ceiling-Same architectural on each floor-Vertical construction- Cornice	<ul style="list-style-type: none">-the concrete post-and-beam structure-Wood frame	<ul style="list-style-type: none">- Concrete-tile- brick-Aluminium- Iron-Wood- Ceramics
 tazoult street	<ul style="list-style-type: none">-Horizontal Construction-Incomplete façade-Incomplete finishing process	<ul style="list-style-type: none">-the concrete post-and-beam structure-The building is in the process of construction	<ul style="list-style-type: none">- Concrete- brick-Aluminium- Ceramics
 tazoult street	<ul style="list-style-type: none">-Same architectural on each floor-Vertical construction- Cornice-Relative symmetry-use of steel doors for protection	<ul style="list-style-type: none">-the concrete post-and-beam structure	<ul style="list-style-type: none">- Concrete- brick-Aluminium- Ceramics- Iron
 tazoult street	<ul style="list-style-type: none">-Same architectural on each floor- Cornice-Vertical construction-Incomplete finishing process	<ul style="list-style-type: none">-the concrete post-and-beam structure-The building is in the process of construction	<ul style="list-style-type: none">- Concrete- brick-Aluminium- Ceramics- Iron

 <p>city center Batna</p>	<ul style="list-style-type: none"> -Central symmetry; -Rhythm in the facade; -Use of architectural elements to embellish decorative elements - The quoins -Cornice. -Corbel; -Arcades; -Large doors and windows (grand scale); -Guard Barrier 	bearing walls	<ul style="list-style-type: none"> -tile - brick - Iron -Wood - Ceramics -chipped stone
 <p>city center Batna</p>	<ul style="list-style-type: none"> -Large doors and windows (grand scale); -Cornice. - The quoins -Central symmetry; - Guard Barrier 	bearing walls	<ul style="list-style-type: none"> -tile - brick - Iron -Wood - Ceramics -chipped stone
 <p>Constantine Street</p>	<ul style="list-style-type: none"> -Open front -From follows function -simple design - 	-the concrete post-and-beam structure	<ul style="list-style-type: none"> - brick -Aluminium - Iron -Wood - Ceramics
 <p>Beboulaïd Street</p>	<ul style="list-style-type: none"> -Open front -From follows function -simple design 	-the concrete post-and-beam structure	<ul style="list-style-type: none"> - brick -Aluminium - Iron -Wood - Ceramics

ANALYSIS RESULTS

Studying Batna and learning about its historical development, it became clear that the historical phases traversed by the city impacted its urban landscape, which was reflected in its architectural type. Thus, two phases were distinguished:

The Colonial Phase

Distinguished by the existence of three architectural styles, represented in the following:

Neoclassical Type

Because it is the foundation of the city of Batna's first core, this architectural style has distinguished most of Algeria's colonial cities.

Modernist Architectural Type

This model is a phenomenon raised as a result of the growth of building materials and the creation of modern architectural trends. It is distinguished by its simplicity and the use of innovative building materials such as reinforced concrete, glass, and iron. This type may be seen in administrative and public buildings, as well as residential complexes.

Post-Independence

During the first period following independence, the same architectural models that prevailed previously characterised this phase. During this time, construction was almost non-existent. After several years of independence, auto-construction emerged as a dominant model in Batna. Then it spread to the majority of its urban sectors, becoming a type used by architects and real estate developers to construct their homes and real estate projects.

ANALYTICAL STUDY OF URBANISM LAWS AND THEIR IMPACT ON THE URBAN LANDSCAPE

Principal Considerations for the Urban Laws Study

- Identifying the organisational dimensions of urban legislation in Algeria, and the role of architectural models in the revalorisation of Batna's urban landscape, because interpreting negative phenomena and existing flaws, and attempting to limit their spread and treatment, can begin with an examination of these laws and an attempt to identify the factors that have led to their ineffectiveness in achieving the objectives.
- Expositions of gaps in urban legislation, its formation, and its relationship to city architectural styles.
- Recommendations for proposals or improvements that will strengthen and correct the flaws in the current system of physical legislation to bring it up to standard and make it functional as needed.

Questionnaire Surveys and Personnel Interviews

Target Sample for the Questionnaire Surveys

In order to fulfil the objectives of this study, as listed below, the target sample for the questionnaire-based survey has been chosen from among the technical personnel working in urban areas in the sectors connected to urbanism in the city of Batna.

Specialty

Table1. Shows spatiality of the selected samples: Source: By the author according to the survey results

Specialty	Urbanism	Management	law	Others	Total
Percentage%	67	17	07	07	100%
Repeatability	67	17	07	07	100

Table 02 shows the educational level of the research sample according to the degree obtained

Experience

Table 2. Shows work experience of the survey sample, source: By the author according to the survey results

Experience	Less than 5 years	From 5 to 10 years	From 10 to 20 years	More than 20 years	Total
Percentage%	12	46	30	16	100
Repeatability	12	46	30	16	100

The questions were developed on the basis of an opinion survey with experts working in the field of urbanism in all sectors concerned by urbanism, from the governmental and private sector, and from the real estate sector, as follows:

This method is considered one of the more recent questionnaire methods related to research in the civilised world. In California, academics and urban experts have recently applied this method to discover the importance of urban laws and legislation. As a result, important results were obtained indicating that urban laws, legislation, and controls are important factors affecting the formation of the city's urban structure, and are no less important than the political, economic, and social factors affecting urban planning and design. (Paul G. P125)

Absence of a Law Protecting the Urban Landscape and Preserving the Architectural Type

After collecting and analysing a collection of decisions, decrees, and local laws related to questions posed by the relevant authorities as well as the results of a questionnaire survey, it was found that the system of urban legislation and local laws has been developed to address specific planning issues or concerns or to organise specific administrative procedures.

As a result, we observed a lack of comprehensive and integrated legislation related to the urban environment and architectural style preservation, similar to the urban planning laws in place in many regional and Arab nations.

Implication of Absence of a Law Protecting the Urban Landscape and Preserving the Architectural Type

The absence of a law protecting and upgrading the urban landscape and preserving the architectural pattern means that there is no comprehensive codification of all planning legislation that translates systematic and scientific physical controls and standards. Therefore, the lack of a backbone in the physical legislation system results in the absence of many texts governing many issues in legislative terms.

Absence of a Law for Urban Procedures

It serves as the implementing regulation of the urbanism law, including procedures for the implementation of management functions associated with the implementation procedures of each planning process in time, required documents, and others; determining the fees for each of these operations by their physical, technical, temporal, and objective nature and the requirements for their implementation.

The questionnaire survey results showed a low clarity and publicity about the procedures related to urbanism laws.

Urbanism Laws Ineffectiveness in Maintaining Architectural Type

Urban laws are not an element for better changes, improvements and reforms unless they are based on binding and decisive legislation and laws that give effect to them. However, such legislation will be effective only if it is linked to several elements and grants these urban authorities legal authority to perform their functions simultaneously.

The questionnaire findings revealed a lack of efficiency in existing urban planning regulations, as demonstrated by the following question: How effective are urban laws at preserving architectural style, and how comprehensive are they?

The results were as follows: Table 03

Table 3. Shows the efficiency of urbanism laws on promoting urban landscape by the author according to the survey results

Efficiency	Good	Acceptable	Not efficient	I do not know	Total
Percentage%	02	14	60	24	100
Repeatability	02	14	60	24	100

Ineffective Legal References in Oversight Functions

This is due to the absence of the existing planning legislation system for legal texts that constitute the legal framework that regulates and controls the work of the oversight apparatus of the competent authorities. Furthermore, it is one of the causes for the current legislation's lack of efficacy, as this oversight is not founded on decisive legislation to regulate transgressions.

This is related to the issue of the legal reference to urban planning offences due to the absence of related texts and sanctions. According to the survey results, the existing sanctions are insufficient and ineffective in controlling infringements, as evidenced by the following question:

How effective are the sanctions provided for in urbanism laws in terms of enforcing regulations and legislation and deterring offenders?

Table 4. Sanctions efficiency according to the survey results. source: By the author according to the survey results

Efficiency	Complete	Partial	Not efficient	I do not know	Total
Percentage%	5	45	30	20	100
Repeatability	5	45	30	20	100

The Ineffectiveness of Urbanism Laws in Urban Landscape Oversight and Architectural Type Maintain

This refers to the ineffective provisions in urbanism laws in the articles on the preservation of a local architectural type that enhances the urban landscape. Law enforcement personnel carry out administrative processes that are unsuited for actual urban landscape control; files for residents wishing to erect structures are evaluated by the siting commission. However, because of the paucity of texts and materials preserving the urban landscape, punishments and monitoring of offenders remain a long way off.

The results of the questionnaire demonstrated the insufficient penalties currently in place to control irregularities affecting the urban landscape. The question was as follows:

- How effective are the penalties provided for under urban laws, in terms of preserving the urban landscape?

The results were as follows: Table 05

Table 5. Urbanism law efficiency on urban landscape and architectural types variation. source: By the author according to the survey results

Law efficiency	Complete	Partial	Not efficient	I do not know	Total
Percentage %	10	30	35	25	100%
Repeatability	10	30	35	25	100

The punitive articles in urban laws are penalties for lawbreakers who construct buildings without zoning permits, meaning they are not reflected in the city's existing urban landscape.

In addition, the observers represented by the Municipal People's Assembly and the Construction and Building Directorate do not carry out periodic monitoring of the urban space, resulting in chaos, deterioration of the landscape, and a lack of adherence to a coherent architectural style.

The Infective Follow-Up Procedures in the Urbanism Process

The follow-up process in terms of procedures is an administrative process since it is prepared by the file with the Office of Studies in Architecture. It is a routine process for the Algerian administration.

The questionnaire shows the following results:

Table 6. Shows the impact of urbanism laws on the urban landscape and different architectural type's. source: By the author according to the survey results

level	Weak	Medium	Strong	Total
Percentage %	55	35	15	100%
Repeatability	55	35	15	100

It is noted throughout the evaluation process that the aesthetics of the building are not given much weight in the technical monitoring of construction and urban growth. The urban landscape is not measured by a single building, but rather by a network of connected buildings that produce the city's facade. It has also been noted that each building has a different geometry in terms of architectural styles, resulting in heterogeneity in the facades.

Absence of Periodic Amendments to Urbanism Laws

The survey revealed the lack of changes in the content of urbanism laws: Table 07

Table 7. shows the absence of periodic amendments to urbanism laws. source: By the author according to the survey results

Changes	Yes	No	I do not know	Total
Percentage	00	85	15	100%
Repeatability	00	85	15	100

The decisions are exemplary decisions for urban operations. It explains and facilitates the process since legislators have not conducted periodic renewals of urbanism laws, and hence legislators must consider them.

RESULTS AND DISCUSSION

1. The city of Batna has gone through several development phases that have influenced its urban landscape. As a result of the urban policies that govern architecture at each phase, several architectural types have emerged, resulting in three major architectural styles as follows:
2. The neoclassical architectural type was the first architectural type in Batna, and it has since spread to all French quarters.
3. The modern architectural type represents colonial-era collective housing, administrative buildings, and certain individual houses.
4. Self-build is a type that expanded after independence and has become a prominent style in the city of Batna. It accounts for the lion's share of the city's structures and housing. The self-build accounts for the majority of existing styles in the city and is expanding into new quarters as well as into buildings that have been demolished and rebuilt in this style.
5. The misunderstanding of the influence of urbanism laws on the protection of the city's urban landscape has resulted in the absence of urbanism standards that safeguard local privacies both socially and environmentally. Furthermore, it has led to the degradation of the urban environment, which has a distinct local character.
6. The recent urban expansion resulting from economic development and investment has obscured the spatial identity and flooded the city's urban heritage features.
7. The region has become a playground and laboratory for architectural experimentation. Furthermore, western architectural styles have emerged, using modern materials and building systems previously unknown; the result of the absence of enforcement of urban legislation that controls the nature of the urban landscape. This is a natural consequence of the national expertise lack in the fields of architecture and construction and an uncritical openness to the West. Thus, Western values have changed the architectural style and urban landscape of the city. In addition, the availability of the economic factor allowed the realisation of projects and their rapid emergence.
8. There is a lack of legislation relating to national identity preservation and private standard of living achievement within the existing urban systems. In addition, there is an absence of existing urbanism legislation to achieve a balanced social environment and remedy the effects resulting from the demographic problems of the city of Batna.
9. This leads to several social issues and a high crime rate, in addition to the high pressure on public services and utilities in these areas, which is reflected in the city's urban landscape.

Urban legislation related to urban systems that achieve a balance between architecture and climate is ineffective regarding glass building facades and large concrete blocks. The recent urban boom has produced urban and architectural styles incompatible with the region's climate in general.

10. The lack of legislation on the role of people's participation in the landscape and the city is also related to the social dimension. The urban planning of areas and projects is carried out at all planning levels without public participation in the planning process. Planning is often not disclosed to the public until it has been adopted.

REFERENCES

1. Law No. 06-06 of February 20, 2006 Containing the Directive Law of the City, Official Gazette, Issue 15. Ibrahim Ben Youssef, The Problem of Urbanism and the Islamic Project, Abu Dawood Press, Algeria, El Harrach, 1992,
2. Ordinance No. 74-26 dated 20/02/1974 establishing real estate reserves for the benefit of municipalities, Official Gazette No. 19.
3. Sabri Fares Al-Hiti, Salih Fleij Hassan, Geography of Cities, Dar Al-Kutub for Printing and Publishing, University of Mosul, 2000.
4. The master plan for the preparation and reconstruction of the municipality of Batna, the first phase, 1998.
5. Boras Scheherazade, Spatial Dynamics and Urban Forms of the City of Batna, MA in Urban Planning, Institute of Earth Sciences, University of Constantine, 2001,

6. Al-Hadi Saidani, Guide to Batna and the Aures Region, Dar Al-Shihab, Batna, 1980.
7. General census of housing and population, National Statistical Office, Constantine 2010.
8. Master Plan for Urbanization and Development, Phase I, Batna, 1998.
9. Ahmed Mohamed Bouzaraa, Underdeveloped Regions in Third World Cities, a field study in Batna, Ph.D. in Sociology, Cairo University, 1989.
10. Paul G. Lewis and Max Neiman. Georgetown University Press, Washington, DC, 2009.
11. Cullen G, The Concise Townscape, The Architectural Press, London, Cullen, (1961)
12. Spreiregen, P, Urban Design: The Arch of Towns and Cities; Mc. Graw Hill Book Company, (1981)
13. Ward, Pamela; Conservation & Development in Historic Towns & Cities; Oral Presslimited, London, (1968),
14. Pierre Merlin et Françoise Choay, dictionnaire de l'urbanisme et de l'aménagement, édition Quadrillage, Paris, 2005.
15. Jacqueline Morand-Deville, Droit de l'Urbanisme, Dalloz, Paris, 7e édition, 2006,
16. Henri Jacquot et François Priet, Droit de l'Urbanisme, Dalloz, Paris, 3e édition, 1998,
17. Argan, Giulio Carlo, (AD) "On the Typology of Architecture", Translated by J. Rykwert, The Architectural Design, Dec. 1963
18. Herrmann, Wolfgang, Laugier and Eighteenth-Century French Theory, London, Hertford and Harlow: The Shenval Press, 1962
19. Sabeh lafta, Visual pollution in the commercial urban scene Vol. Wasit Journal of Engineering Science (4), No. (1), 2016
20. Miriam Engler, Gordon Cullen and the "Cut-and-Paste" Urban Landscape, UNIVERSITY OF CALIFORNIA Los Angeles, 2013.
21. Kazem Mohsen al-Kaabi, The refinery's selectivity theory (Broadbent), a critical view, Philosophy Journal, Volume, Issue 13, 2016.
22. Couteux Pierre Soler, droit de l'urbanisme, Dalloz, 3ème édition, Paris, 2000.

Citation: Boudraa Hocem eddine, Pr. Dib Belkacem. Architectural Types and the Impact of Urbanism Laws on the Urban Landscape: Case Study of Batna City – Algeria. Int J Innov Stud Sociol Humanities. 2023;8(1):12-29. DOI: <https://doi.org/10.20431/2456-4931.080102>.

Copyright: © 2023 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license