

# Impact of Architectural Changes in Housing Estates on Urban and Environmental Quality in Constantine

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## Abstract

Most housing estates in Algeria often represent an identical image with the observation of multiple problems: a huge deficit of spatial, social, urban, and environmental qualities, which contributes to the absence of the feeling of individual and collective well-being of the inhabitants. In most of the housing estates in Constantine, self-construction generates different forms of social representation, detour, and mutation in the individual habitat and its public space. This form of housing perpetually continues to impose the appearance and the current and dominant image under the appearance of unfinished red brick constructions, which contributes detrimentally to the quality of the landscape and the environment of the city. These phenomena contribute to the reproduction of the urban landscape in general and public spaces, as well as changing the uses and practices of these spaces.

This article deals with the problem of mutations in a case located in the new city of Ali Mendjeli in Constantine, Algeria. These detours have disfigured its character of habitat, displaying an image of multipurpose and informal trade, which thus generates environmental pollution regarding multiple nuisances of acoustic and olfactory nature.

The objective of this work is to establish an intervention respectful of the environment and to analyze the impact of these mutations on the quality of life of the inhabitants, the reflection must be oriented on several aspects such as the expression of the identity of the habitat through the representations and the social behaviors, the serenity and the tranquility of the district, the environmental quality, and the preservation of public spaces.

This research is based on a survey completed by a questionnaire and field surveys, subsequently, the processing of these data has led to several results whose most important are the inadequacy of the architectural design with the needs of the inhabitants, the non-existence of monitoring of these sites of self-construction, the deficiency of control on the part of the authorities concerned and the vulnerability of urban legislation.

**Keywords:** Individual housing, self-construction, social representations, public space, environmental quality.

## INTRODUCTION

Housing in Algeria was often a major concern, both for the citizen and the public authorities. However, the state, as a producer of urban policies and within the framework of a social project, instituted several housing formulas, including self-construction in housing estates, which aims to involve citizens in the construction effort. These citizens come from different social, economic, professional, and intellectual strata, and by living in the space, they are not satisfied with just enduring it, but rather they practice it (Belguidoum & Millet, 1987).

Through the confrontation between these two actors, the form of the real allotment is born, which is concretized by a reappropriation of the state project of individual housing by its inhabitants who are at the same time its builders and occupants, sometimes even tenants, through the intervention on its development and its built framework which are manifested by adhesion or a refusal, between these two positions, several mutations are deployed (Belguidoum, 1992).

It is necessary to note that the disadvantages of today's housing estates are becoming very noticeable: a huge deficit of spatial, social, and urban qualities, which does not contribute to the feeling of individual and collective well-being of the inhabitants. At the same time, high-standard residences are often juxtaposed with constructions without architectural reference, with various shapes and contours (Keira, 2015). Moreover, often a subdivision is never completed giving

the appearance of an eternal building site, when it is the construction that is completed, it is the roads, lighting, green space that is lacking, even the owners get involved and contribute greatly to the ugliness of the environment; unfinished construction, building with bare brick decorations.

The architectural and urban mutations of individual housing remain the result of the subdivisions and their urban form. These phenomena have contributed to the reproduction of the urban landscape in general and public spaces while modifying the uses and practices of these spaces, particularly central public spaces (Monnier, 2000). The last decades have been marked by multiple accelerated changes that have marked the Algerian society, which has generated the manifestation of new trade structures, established at the level of housing estates whose scale and structure are not adapted to high-intensity economic activities (Benderra, 2002).

This phenomenon is based on a social mimicry that characterizes most housing estates in Algeria (Cote, 200). Like the case study of the housing estate located at NU7 (neighborhood unit) in the new town of Ali Mendjeli, which has become a district with an image of multi-purpose commerce par excellence by creating a field conducive to the development of commerce for its inhabitants, who have diverted it from its character and support of habitat. This last one is supposed to occupy only a residential function represented by a parcel division where tranquility is one of the most respected architectural aspects. This subdivision has now become a problematic case because of the anarchic construction and occupation and detour of garages and entire homes in commercial premises or commercial functions that generate environmental pollution regarding multiple nuisances of acoustic and olfactory character, without considering the safety of the subdivision.

## **LITERATURE REVIEW**

Several researchers approach the subject of mutations and quality of habitat and analyze the social representations related to the environment. Citing the work of Rioux et al (2010), in their analysis composed of a series of 4 studies on the validation of the rootedness scale based on the theory of attachment to place, expressing attachment as an affective bond resulting from interactions and dynamic transactions between a person and his environment (Rioux, 2010). They conclude that housing represents the place chosen, shaped, appropriated by its owner; home is a place of financial, emotional, and time investments. Elian Djaoui (2011) in his research on Approaches to the culture of the home evokes that housing is not neutral, passive territory, it is a construct marked by the imagination of the inhabitants, of recognition, of being a subject and actor of one's life and history, by retorting that housing constitutes the reflection of its inhabitant, of his history, of his culture and also of the image he wants to give to others.

In his book on the Social Psychology of the Environment (Fischer, 2011) states that housing represents a primary territory, controlled by its occupants in which residential space becomes a space of intimacy, a refuge.

Another comparative study on social psychology applied to the environment, identified the processes regulating the relationship of individuals to their environment (Rateau& Weiss, 2011), highlighting environmental perceptions, attitudes, evaluations, and representations as well as the behaviors and conducts that accompany them. By focusing as much on the effects of environmental conditions on human behaviors and conduct as on the way the individual perceives or acts on the environment.

A study on the environmental assessment of urban wastelands analyzed in detail the multiple interactions linking the reclamation of urban wastelands and the environmental dimension according to an environmental assessment methodology (Boudjadja, 2021), developed based on the characteristics of urban wastelands projects. The results constitute a system of indicators "SEEPFRU" (System for the Environmental Evaluation of Urban Reclamation Projects), adapted to the scale of the recapture project and to the local context, which provides an evaluation methodology and a tool for integrating environmental considerations (Boudjadja, 2020).

A study on Health Psychology determined that the indicators of quality of life are income level; physical and psychological health index; social relations and activities and housing conditions (Bruchon-Schweitzer, 2002). Consequently, the question that remains to be answered is whether the multiple forms generated by individual housing make it possible to maintain a good quality of life, life satisfaction, and a high level of self-esteem and thus promote adaptive adjustments in the face of perpetual change.

Another work on the new city of Ali Mendjeli, emphasized the contribution of private actors, ordinary city dwellers, and traders, to the production of space, and the detour of functions and activities due to non-compliance with planning

regulations (Lakehal, 2014), which continues to produce the same ideological-urbanistic designs in the absence of reaction from the public authorities (Yibo et al, 2018), another work on indicators of sustainability based on local culture mentions that the spatial quality of the environment is ensured by the intensive use of ecological and energy-saving building materials by introducing the international ecological rating system, such as LEED, BAEEAM, and DGNB, while insisting on environmental management, by following a green building process to improve the capacity of street pavement and rainwater drainage.

In his theory on the city's image, which is articulated around five conceived elements, the ways, the limits, the districts, the nodes, the landmarks; proposes a global approach to the environment, the understanding of the city, the imagination, and the mental vision (Lynch, 1996.), Lynch studied the visual quality of the city by analyzing the mental representation of the city in its inhabitants. He established the legitimacy of the visual analysis of the urban landscape, in a time when urban planning practice was essentially based on the functional analysis of space. An analysis of public spaces evoked that the understanding of the urban phenomenon is a process conditioned by the consideration of three elements: its morphology, which includes its built and natural environment, the set of social practices and behaviors of the different urban actors who are the producers of the built environment, and finally, the representations of individuals and groups of their space (Bassan, 2001).

## **MATERIALS AND METHODS**

The residential subdivision studied in this research becomes a problematic case because of the informal constructions and occupations and the detour of garages and entire dwellings into commercial premises or commercial and artisanal activities that do not consider the norms of safety and nuisance. The question must be centralized around the causes and consequences of the proliferation of these businesses on the quality of life and the environment of the neighborhood.

This article focuses on the relationship between these practices of the environment in question through the study of the allotment of Block 6 in Ali Mendjeli in Constantine, and the monitoring of the evolution and uncontrolled transformations in residential areas that are supposed to be erected in strict compliance with urban planning standards and which are diverted from their residential vocation. The analysis is based on the case of the allotment of Block 6 located at the level of the neighborhood unit 7 of the new city Ali Mendjeli in Constantine (Figure 1), which presents the current state and formulate reorientations while integrating the concerns of its inhabitants. The choice was made in this neighborhood, firstly, for its location and its status in the new city, characterized by a network of transport and communications, thanks to the accessibility of road infrastructure and the motorization of the population, secondly, this subdivision becomes the most representative in the city, given the presence of a multitude of houses in the phase of realization, and others in the phase of post-occupation.

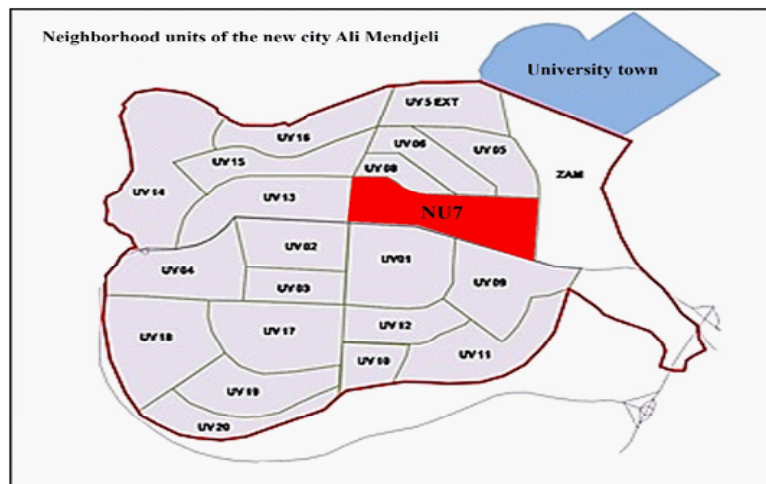
With the objective of establishing an intervention respectful of the environment and analyzing the impact of these changes on the quality of life of the inhabitants, the reflection must be oriented towards the following aspects: Responding to the needs of the inhabitants, contributing to urban culture and identity, serenity and tranquility of the neighborhood, environmental quality and preservation of public spaces, establishing competitive and attractive qualitative allotments, integrating the allotment with the whole city, and improving the living environment.

To achieve these objectives, this study is divided into two phases, the first consists of urban analysis and inventory of the case study through the presentation of the study perimeter, its accessibility, the distribution of the blocks, the built and unbuilt environment, the habitat typology, the equipment, the urban composition, and the constituent elements of the allotment. The second phase includes a field survey, and an analysis of the different mutations and their identifiable characteristics on the facades, as well as the new functional attribution of the constructions. And finally, a comparative synthesis of the results of the analysis between designed and lived.

## **RESULTS AND DISCUSSIONS**

### **Presentation of the Study Perimeter**

The new city Ali Mendjeli is located in the south of the city of Constantine whose urban composition is arranged around a main linear pole that presents a privileged place of urban life and the densest, bringing together most commercial, social, administrative, and leisure activities. Consequently, its road network is composed of boulevards, main and secondary roads. This forms the division of the new city into five large districts where each district is subdivided in turn into 5 neighborhood units composed of a set of habitats programmed and planned in relation to the number of inhabitants, often divided into 3 blocks or basic units.



**Figure 1.** Neighborhood Unit Subdivision Plan (Source: Direction of urbanism and construction, 2009)

The NU7 includes 30% of the population of the new city of Ali Mendjeli, which was estimated at 18,748 inhabitants in 2008, consequently, in 2010 it increased to 19333, and according to the census of 2018, it reached the 33259 inhabitants (Table 1).

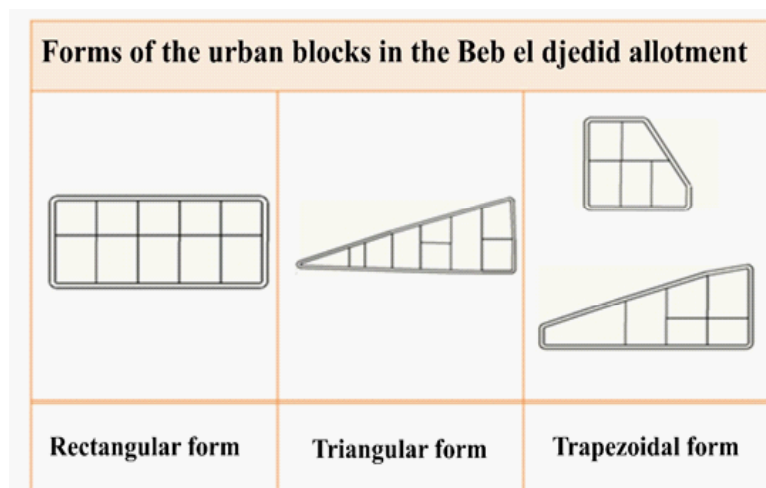
**Table 1.** Evolution of the population of Ali Mendjeli (Urbaco, 2019)

Year	2008	2010	2018
inhabitants number	18748	19333	33259

## Constitutive Elements of The Allotment

### Characteristics of the Blocks

The presence of several forms of blocks, these forms result essentially from the shape and morphology of the land as well as the road network, which place them in contiguity and/or opposite each other. Among the shapes that dominate in the allotment, there are those that take the rectangular or triangular shape and others marked by the shape of a trapezium as shown by figure 2.

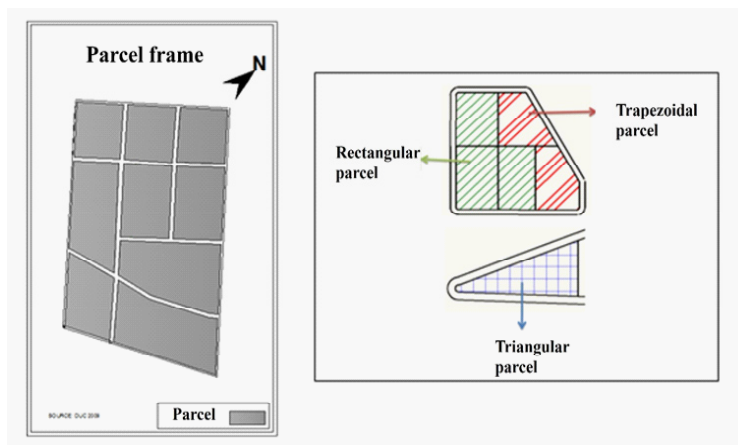


**Figure 2.** Shapes of existing blocks (Source: author, 2021)

## Constitutive Elements of The Plots

Most of the plots of the allotment are characterized by a rectangular shape, the dimensions vary from one plot to another, without forgetting that there are still other irregular shapes, which are often close to the trapezium (Figure 3).





**Figure 3.** Plot pattern and parcel shapes (Source: Author, 2020)

### ***Greenspace***

The vigor of private initiatives is displayed particularly through the practice and appropriation of unbuilt spaces, wastelands, vacant lots, construction sites in progress, or abandoned, which make up the urban fabric of the subdivision, these plots are always waiting to be filled (Berry-Chikhaoui&Deboulet, 2000). They are completely neglected and abandoned, and this contributes to the degradation of the image of the housing estate (Figure 4).



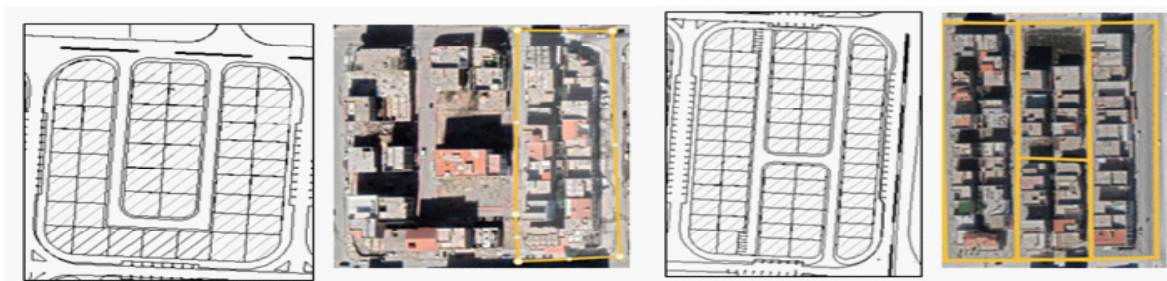
**Figure 4.** Green space configuration and status

These vacant or unfinished spaces correspond to land planned for future construction; others are reserved by the urban planning documents to receive or benefit from development in the form of green spaces or public gardens. However, as the programming of facilities or developments is the responsibility of the public authorities, their implementation schedule is never in phase with the stages of urbanization (Cailly, 2004).

### **Characteristics of the Constructions in the Subdivision**

#### ***The Organization of the Building***

The built fabric is characterized by a more or less ordered organization, with the layout of the houses arranged side by side forming a continuous strip (Figure 5).



**Figure 5.** Building organization

### **Heights of Constructions**

The delimitation of an average height to be respected allows the preservation of the general silhouette of the built environment by keeping a homogeneity of the urban whole as well as the general image of the landscape and the urban facade of the allotment. It also allows sunshine and air penetration. This height is calculated according to the width of the roads measured from the existing ground. According to the specifications, the height of the constructions must not exceed 15m from the level of the road on the side of the main facade.

In this case study the constructions are characterized by an extension in height, often resulting in houses resembling buildings (building-villa). In some constructions, the dwelling is in the upper levels in the form of the apartment and the place of work or trade-in the levels of the garage to the first floor, whose structuring element remains the staircase, in other cases there is a radical detour of the function of the habitat in a school of formation, restaurant, private school, hotel, nursery. Such diversity creates a mosaic of constructions with different shapes and sizes and a great contrast in the area where they are located (Figure 6).



**Figure 6.** Exceeding permitted heights and misuse of functions

### **Treatment of Facades**

The façade is one of the most important architectural components that influence the harmony of buildings. The openings, the cladding materials, the colors, and the mosaics are the key elements that make it possible to read an urban façade (Figure 7).

The contrasts between the facades translate the various forms of appropriation of the private-common space of the bottom of the parcel and the public space on the street.



**Figure 7.** Absence of a homogeneous reading of the urban façade.



## **Functional Attribution of the Constructions**

### ***The Consumer Trade Coffee, Cafeteria, Restaurant***

According to the survey, due to the absence of places of entertainment, cafes form and remain the place of regular frequentation strongly inscribed in a common tradition exclusively intended for the male community. It conceives the space that shows the competence of the inhabitants to make their own meeting spaces and imposes itself as the main place of reception of the inhabitant sociability and of the practices that are deployed outside the domestic space (Figure8).



**Figure 8.** Consumer trade: restaurants and cafeterias

Thus, in addition to the presence of these traditional cafés, the survey also shows the presence of some modern luxury cafés of the tearoom or cafeteria type, frequented by a mixed population, the majority of whom are women, and whose location allows customers to enjoy the urban spectacle.

The restaurants in their turn occupy a major part of this category, with a very dense attendance during lunch hours, especially between 11:30 and 13:30, while it decreases during dinner hours except on weekends.

### ***Artisanal Activities***

Other practices in this area constitute and occupy an important part of the housing estate. This is evidenced by the presence of a number of mechanics, extension workers, sheet metal workers, stores for the sale of car accessories and maintenance and washing stations, most of which are in garages transformed into informal workshops, others do not have workshops and carry out their activities in the open air (Figure 9 and Figure 10), almost installed around the streets of the subdivision and on the vacant space reserved for the public garden, which generates the daily traffic of vehicles of different types from the lightest to the heaviest, thus contributing to the degradation and deterioration of the roads and water supply networks.



**Figure 9.** Mechanical repair activities



**Figure 10.** Workshops of artisanal activities

### ***Supermarkets, Grocery Stores, Food Shops***

In this case study, supermarkets and stores selling food are characterized not only by their large number, but especially by their repeated use throughout the day by all residents, young and old, men and women, and even those coming from different communes and neighboring cities.

This frequentation favors exchanges between many inhabitants, not only of the same residential block, the same neighborhood unit, or the same district but also of the same city. As a result, these types of shops are a real “hub” of social life (Berezowska, 2012).

### ***Multiservice Trade***

Represented by stores and multi-service kiosks, bookstores, telephone stores, cosmetics shops and others that have opened everywhere are also very popular places. These activities offer a wide range of services and products (sale of traditional cakes, tobacco, cosmetics, cell phones and accessories, school supplies, paper, photocopying of administrative documents, etc.) that increase their attractiveness to residents of all ages. They exert a great power of attraction and thus impose themselves as a place of mixing and sociability.

### ***Liberal, Medical, And Educational Activities***

Another type of private liberal activity is presented in several forms such as the offices of study of architecture and town planning, real estate agencies and travel agency, notary's office .... or medical character: the cabinets of all specialties, clinics, pharmaceutical companies, or agencies of sale of medical material. In the company of equipment of an educational nature such as nurseries and private schools containing all levels of schooling from primary, middle, and secondary in the same building intended in principle to house a house, as well as training centers and schools of all kinds and specialties (Figure 11).



**Figure 11.** Liberal and educational activities



### **Activities Accommodation and Events**

Among the most remarkable detours that have the greatest share in terms of noise pollution during the day and night are the buildings that have been converted into party and event halls, due to their strong contribution to the degradation of quality and acoustic discomfort and to the psychological well-being of the inhabitants, especially the elderly and the sick who, according to the respondents -including the houses near these halls- these buildings constitute the daily subject of several claims and demands to the owners and even to the security services (Figure 12).

Another type of mutation is also manifested regarding these rooms, which is the accommodation function where hotels appear in this housing estate.



**Figure 12.** Hotels and ceremony halls

### **ANALYSIS SUMMARY**

After having analyzed all these misappropriations which show the failure of the regulations, it seems necessary to examine the position of the urban legislation and the specifications in the control of self-construction in these allotments. This analysis consists in presenting the allotment in its current state, it consists in making reading its conception and its construction, and its observed problems by making a comparison with the prescriptions of the specifications and the influence of its texts on the conception of the individual housing and its urban form.

The survey shows the total absence of the implementation of road works and the negligence of the treatment of the public space. As a result, the roadway becomes a real constraint for users, especially during the winter period, according to the response of the inhabitants of the subdivision. For the roadways and parking lots, the parking of vehicles is done in an informal way near the houses or on the sidewalks which encourages the pedestrian to walk on the roadway (Figure 13 and Figure14). The developer must carry out external arrangements and plantations such as envisaged in the plan of the allotment, whereas the external space is completely neglected which constitutes an abandoned landscape. On the other hand, the occupation of the vacant and not built lots, sidewalks, and public gardens by the building materials or dumps of earthwork, caused difficulty in the passage of the cars and the degradation of space and landscape (Figure15).

Similarly, the total absence of the place provided for household waste by the development plan obliges the purchaser to dispose of his waste near his house. As well as the exceeding of the coefficient of land use (CES) and the encroachment on the nonaedicandi zone (ZNA) through the extension of the private gardens and the sidewalks which presents a recurrent phenomenon in several constructions in this housing estate. At the same time as the elevation on more than 3 floors (R+3), which houses several households, distributed on the floors as well as others are the subject of detour and occupation by activities with liberal, commercial, catering, accommodation, and events (party rooms) (Figure 16).



**Figure 13.** Lack of viability



**Figure 14.** Parking on the sidewalks of houses



**Figure 15.** Random dumping and building materials



**Figure 16.** Floor elevation: ground floor + 4 floors

The subdivision is characterized by the massive presence of different types of trade, which generates environmental pollution, acoustic, visual, and olfactory nuisance, due to the daily and permanent passage of vehicles of all types because of the character of the activities intended for mechanization, carpentry, welding, and others, which contributed to the disfiguration of the landscape, dirt, and deterioration of the road permanently, different types of odors coming from restaurants and cars, the loss of the notion of the calm characteristic main in this type of habitat. All this has contributed to great discomfort and physical and psychological discomfort in the inhabitant due to these multiple nuisances. Consequently, the problems of vis-à-vis and pollution cause the permanent closing of the openings as well as the balconies. This gives a closed landscape and an urban facade without coherent reading composed of a panoply of several styles and ornaments which generates a heterogeneous landscape in the total absence of panoramic or natural view.

However, and despite the overruns of the purchasers, the allotment presents several positive points; by its strategic situation and its location at the entrance of the new city, its proximity to the industrial zone and its approach to the various services, through the presence of the public transport presented by the line of the tramway, bus, and cab. It

also benefits from functional, dense, and fluid accessibility, due to the daily frequentation of these services. Therefore, it constitutes a lively nucleus due to the presence of commercial activities, a characteristic that is absent from other housing estates distinguished by their isolation and distance from services, since the ways of appropriation and use of these places create a particular atmosphere through practices and sociability.

## **RESULTS AND DISCUSSIONS**

The results of this study are constituted on several components which form the direct consequences of the mutations in the allotments in Algeria:

- On the socio-spatial aspect: The standardization of the styles and typologies of habitat places the citizen in a gap between his identity and his experience, regarding the loss of the notion of proximity, urbanity, and sociability which expresses the aspiration of mixity, compactness, and to preserve identity. However, the very weak involvement of the civil society in the decision-making process of urban development generates abstinence on the part of the citizens to preserve the public space by a lack of social awareness on the one hand and the absence of information, communication, and sensitization between them and the public authorities on the other hand. As a result, these detours and practices favor the emergence of urbanization that does not conform to the tools and rules of development.
- On the socio-economic aspect: The demographic growth in the face of the employment crisis produces the unorganized specialization of functions and activities in the housing estates, which generates the increase of the informal and the spontaneous with its various consequences. This generates the development of needs and the cost of land which accentuates land speculation.
- On the environmental side: the magnitude and increase of urban pollution contribute detrimentally to the environmental quality against the weakness of the ability to establish a sustainable development strategy. Considering the decrease in environmental resources against the increase in demand for soil, water, energy, and vegetation. This makes the city vulnerable and exposes it to major risks in highly urbanized areas in the face of the continued concentration of populations and activities in cities.
- On the urban side: in a concern for the protection of identity in the face of the loss of landscape quality and identity of the built environment, in the face of the lack of organization of a studied centrality, the unity of structure and legibility of urban form, as well as the relationships between the different functions, results in the incoherence of facilities and inefficiency of services. Thus, the need for preservation of agricultural land, facing the demand for investment spaces and the ambition of attractiveness and competitiveness.
- Urban management: the absence of a development strategy and local management in the face of unclarified urban policy. In addition to the lack of local finances and unqualified skills, there is a lack of citizen participation, which plays the most important role in the quality of the housing estate.
- Legislation and urban planning: the absence of a development and renewal strategy, the standardization of regulations throughout the national territory, the inadequacy of planning instruments to changing needs, the failure of standards, and the absence of benchmarks in the face of the objectives of sustainable urban development, as well as the lack of coordination at the design stage of the instruments result in a lack of flexibility and adaptability of the development to changing needs. On the other hand, the failure of the implementation and monitoring system, the insufficient programming and weaknesses of the specifications, the uncoded urban project management and the lack of control, which opens the way to overruns and harms the quality of development studies.

On the part of the actors: Inadequacy of the training offers to the needs of the field and the insufficiency of training of architects and urban engineering to the methods and techniques of management to the urban aspects and to the supervision of the follow-up and control of the projects.

## **CONCLUSION**

The architectural mutations of individual housing in Algeria are considered as a recurrent fact in the allotments which contribute to the architectural and urban quality. This phenomenon contributes to the reproduction of the urban landscape in general and public spaces while modifying the uses and practices of these spaces in relation to the needs and lifestyles of the inhabitants.

The new city of Constantine is considered a favorable base to deploy and promote social and urban diversity. Hence



the choice of the allotment located in the neighborhood unit No. 7 which occupies a strategic position, being part of the central core of Ali Mendjeli, bringing together most of the commercial, social, administrative, and leisure activities where reside a high population density and mobility. Therefore, the criteria of choice are made based on the selection of the most representative allotment in terms of the diversity of forms of architectural and functional mutations that contribute to a huge deficit of spatial, social, urban, and environmental qualities. However, this major dysfunction results in the appearance of inefficient and non-functional urban forms and generating constructions without architectural reference, unfinished giving the aspect of an eternal building site, informal trade, failure of roads, lighting, and absence of green space.

This work represents two phases of the study, of which the first phase consists in making an urban analysis and inventory of the case study through the presentation of the perimeter of the study, its accessibility, the distribution of the blocks, the built and not built framework, the typology of habitat, the equipment, the urban composition, and the constituent elements of the allotment. The second phase includes a field survey, and an analysis of the different mutations and their identifiable characteristics on the facades, as well as the new functional attribution of the constructions. And finally, a comparative synthesis of the results of the analysis between designed and lived.

The results presented in this study and which are due to the urban mutations are multiple, they can be spread on several socio-spatial, socio-economic, environmental, urban components; of which the most essential constitute; the standardization of the habitat and the inadequacy of the designed with the needs of the lived of the inhabitants, the aspiration of the social and urban mix, the unorganized specializations of the functions, the amplitude of the urban pollution, the absence of the quality and the framework of life, the absence of composition and urban legibility, the absence of competences and strategy of development and renewal, the weakness of the specifications and the vulnerability of the regulation.

As a result, changes in housing estates require the development of a strategy for their integration into the urban ensemble, as well as a revision of urban planning tools, a political decision to create new neighborhoods that requires a conceptual reflection (its vocation, its form, its footprint ...). Consequently, the improvement of the quality of life in the housing estates requires an adaptation of the urban environment to the evolution of the needs of the society, the improvement of the living environment and standard of living, the improvement of the effectiveness and efficiency of the services and the urban management of the housing estates, the control of the form, the mix, the sociability and the cohesion of the dwellings, to ensure effective mobility by the multiplication of the means of transport, and the favoring of the access to the services

## REFERENCES

1. BELGUIDOUM, S & MILLET, D. 1987. Détournements et retournements des modèles urbains et architecturaux à Sétif, in HAUMONT Nicole et MARIE Alain, Politiques et pratiques urbaines dans les pays en voie de développement, L'Harmattan, Paris, pp. 228-247
2. BELGUIDOUM, S. 1992. Mobilités résidentielles et stratégies sociales dans les petits centres urbains sétifiens (Algérie)", in Escallier R. et Signoles P. (sous la direction de), Changement économique, social et culturel dans le monde arabe, URBAMA, Tours
3. BOUDJADJA, R. 2021. Pour une évaluation environnementale spécifique au projet de reconquête des friches urbaines du territoire Ruisseau/Abattoirs à Alger, Thèse de Doctorat en Sciences en Architecture, université Constantine 3.
4. BRUCHON-SCHWEITZER, M. 2002. Psychologie de la santé. Modèles, concepts et méthodes. Paris : Dunod.
5. BENDERRA, O. 2002. Économie algérienne 1986/1998 : les réseaux aux commandes de l'État, in CESARI J. (dir.), *La Méditerranée des réseaux*. Paris, Maisonneuve & Larose : 231266.
6. BEREZOWSKA, E. (2012) Guide du Projet Urbain. Comprendre la démarche du Projet Urbain, Collection Urbanisme, Synergie.
7. BOUDJADJA, R., & SASSI-BOUDEMEGH, S. 2020. The urban brownfields of Algiers; between representations, temporary uses and new places of culture. SAUC - Street Art and Urban Creativity, 6(1), 34 - 51. <https://doi.org/10.25765/sauc.v6i1.239>

8. BERRY-CHIKHAOUI, I & Deboulet A. 2000. Les Compétences des citoyens dans le Monde arabe. Penser, faire et transformer la ville, *Paris/Tours/Tunis*, Karthala/URBAMA/IRMC.
9. BASSAND, M. 2001. Les espaces publics en mouvements, *Villes en parallèle*, n°32-34, pp. 36-44.
10. COTE, M. 2006. Constantine : cité antique et ville nouvelle, Constantine, Saïd Hannachi/Média-Plus.
11. CAILLY, L. 2004. Pratiques spatiales, identités sociales et processus d'individualisation. Étude sur la constitution des identités spatiales individuelles au sein des classes moyennes salariées du secteur public hospitalier dans une ville intermédiaire : l'exemple de Tours, Thèse de doctorat, Géographie, sous la dir. de M. Lussault, Université François-Rabelais, Tours.
12. DJAOUI, E. 2011. Approches de la « culture du domicile ». *Gérontologie et Société*, 136, 77-90
13. FISCHER, G. N. 2011. Psychosociale de l'environnement, (2 ed.), Paris: Dunod.
14. KEIRA, B. 2015. L'intégration des dimensions environnementales et sociales dans les pratiques urbaines en Algérie : enjeux et perspectives, Thèse de Doctorat en Aménagement de l'espace et urbanisme, Université Nantes Angers Le Mans.
15. LAKEHAL, A. 2014. La ville nouvelle d'Ali Mendjeli. Un espace façonné par les pratiques et les représentations des citoyens ordinaires, *Les Cahiers d'EMAM*, 22.
16. LYNCH, K. 1960. L'image de la cité. Paris : Dunod.
17. MONNIER, G. 2000. L'architecture du XXe siècle, Presses Universitaires de France, Paris
18. RIOUX, L. 2010. Why do elderly people choose to live in a community home? A study among french population. *Bulletin of the Transilvania University of Braşov*, 3 (52), 115-120.
19. RATEAU, P & WEISS, K. 2011. Psychologie sociale appliquée à l'environnement. *Pratiques Psychologiques*, Elsevier Masson, 17 (3), pp. 213 - 218.
20. YIBU, L., SUNING, X., GUOJIE, L., WENQIAN, L. 2018. Research on Countermeasures of Local Culture-based Sustainability of Urban Block Patterns. Elsevier Masson. 19.

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