

# Residential subdivisions, what potential for quality production?: Case of the city of Bechar, Algeria

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## Abstract

Having experienced in the past a fatal housing crisis, likewise any developing country with a rapidly growing population. The demands for building land in Algeria coupled with residential subdivisions have, therefore, known a real success. In Bechar (city of the south of Algeria), the increased production of the residential subdivisions (since the eighties) has not often given the expected results. Instead, we are witnessing poor quality, and often an unfinished production. For the most part, subdivisions are displayed in all their baseness, defying the rules of art and town planning. Whereas, the subdivision is not only an inert urban form conceived in the form of plot division, rather, it is a mean of urban development that must meet the quality requirements of the living environment. While the successive production of residential subdivisions today gives a depreciated image, reflecting an uncompleted construction site, this article aims to shed light on this phenomenon and seeks avenues capable of improving the quality of life in these living spaces.

## Keywords

Subdivision, Quality of life, Residential space, Bechar.

## 1. Introduction

Ancient cities were usually in the form of regular geometric subdivisions. The arrangement of these designated subdivision units is a morphological composition that goes back far in the history of the founding of cities.

Nevertheless, the notion of subdivision has been commonly used since the middle of the 19th century, although older examples are often mentioned. The subdivision formula is simply a continuation of the most traditional way of developing cities (BUER, 2008).

Residential subdivision has thus been and remains a dominant mode of settlement growth. This typology of the residential built environment seems most appropriate, because the inhabitant participates in the construction effort. As a form of operational urban planning, this element of operational morphological composition defines the fragmentation of land ownership, its mode of evolution and its attribution. As a procedure created by and for the urban environment, the subdivision is a very interesting tool which allows working on the urban form (density, mix). Through the composition plan, the regulations and the specifications, the subdivision makes it possible to define some major urban planning rules and to work on the main lines of the urban composition of the future district. It is a privileged tool for controlling and organizing urban expansion, whether it is the creation of new residential or business areas, especially for small communities. The subdivision inevitably assures a social function, at the same time that it constitutes a simple and fast means of urbanization.

- For the administration, it allows to reach a certain number of objectives:

- Control of equipment and infrastructure.
- Consistency with urban planning regulations.
- Maintaining the quality of the environment.
- The guarantee to ensure the completion of the work before the acquisition of the land.

- For private individuals it offers the following advantages:

- An easy procedure for the acquisition

tion of land.

- A quick way among other procedures to acquire a house.

Nowadays, the notion of subdivision is treated at different levels: whether to intervene on existing tissues in order to renew or densify them, or even as part of an extension of the fabric. In particular, this notion is evoked when it comes to emergency operations, requested in the case of a strong demographic expansion, which requires the production of a significant number of housing. Algeria, this developing country, has recently experienced an unprecedented increase in population (as fast as it is grandiose), to which the housing stock has not been able to respond. Another alternative had to be found, that of allocating the land to the population: an operation that manifested itself in great success.

Subdivisions (which are of interest to this research) are therefore the tool that has been able to satisfy the urgent expectations of a growing population. Nevertheless, the diligent and uncontrolled pace of urbanization, generates problems in the control and management of Algerian cities and their extensions, both in terms of quality of production, and morphologically. For a long time the population that resides their lives in embarrassment without much choice. Public rejection and dissatisfaction are the cause of the emergency framework that defies time, cost and quality (Magin & Panerai, 1988). The proportion of the production of subdivisions therefore takes precedence over the qualitative value. The result is an indecent living environment, refuted by the inhabitants because it is antagonistic to the lived reality. The cultivated urban landscape concedes in short, a degraded image of the subdivisions.

On the other hand, the lack of coordination between the services responsible for the realization of subdivisions reinforces the discordance of autonomous decisions, the dissimilarities, consequently the contradictory, iterative and tedious aspect of the architectural and urban landscape. This individual habitat, which should have cardinal qualitative virtues responding to the comfort of the inhabitants, be-

comes a stage devoid of the urbanity necessary for city life.

### 1.1. Objective of this study

This work aims to deepen knowledge on the issue of quality of subdivisions inherent to the city of Béchar in Algeria, in order to seek solutions for a better quality and a decent living environment, suitable for the inhabitants.

## 2. Exploring the literature

Various researches take into consideration this mode of urbanization, accepting its growing share in the production of urbanized space trying to give it design, urban and environmental qualities.

Masbouni (2008) depicted in his book (*Making town with the subdivisions*) the work of General Direction of Urbanism, the Housing and Construction (DGHUC, France) developed at the 32nd Urban Project Workshop (of 30 May 2006). That said, subdivisions as an intrinsic operation to urban planning, rather deliver productions that ultimately manifest an architectural and urban mediocrity, even environmental, subsequently encouraging fragmentation. And yet various approaches are taken into consideration in this mode of urbanization to accept its growing share in the production of urbanised space. Conséquence, is to reconcile the subdivisions with the city that, Masbouni addresses the issue of subdivisions in her book. This book gives keys allowing individual housing to reconstitute fragments of the existing city; allowing the implementation and the qualitative organization of the subdivisions, in order to (make a sustainable city) in its own right.

In his book (*Introduction to Operational Urban Planning and Urban Composition*) typically at the level of the chapter: the residential subdivision, Zucchelli (1984) believes that if the issue of individual habitat compatibility, with the dimensions of the urbanization phenomenon that the world is experiencing today, remains without a convincing and definitive answer, it is necessary to give the subdivision the attention that requires its dissemination, by trying to identify the elements

of generalization of its problematic and especially the characterization elements involved in its organization and configuration.

The author presents elements that are considered necessary for the determination of the organizational and configuration scheme of a subdivision to ensure the quality of its design and execution. He explains that the general design of the subdivision is made on the basis of data from the site and the pre-existing urban environment, and that the fundamental step in the process is to define the type of tissue that is desirable. As a result, the layout of the roadway, the parceling and the layout rules will be designed in harmony with the chosen fabric, as well as the harmony of the subdivision is obtained by defining the type of construction to be carried out, the rules of their installation and the architectural prescriptions, specifying the proportions, the provisions and construction rules to be respected. Constructions must have the same architectural composition in terms of volume and treatment.

The subdivision is the object of a virulent criticism that is part of the spread-out city, a criticism that seems to condemn it to be the instrument of a production of spaces that are mediocre from a morphological point of view (Herrmann, 2017). Herrmann (2017) In his doctoral thesis, which deals with the subdivision envisaged as the *modus operandi* of the ordinary factory of the contemporary city. Indeed, the researcher asks whether it is possible to produce quality urban spaces through subdivision from a morphological point of view. The apprehension of the materiality of the subdivisions is based on the frame approach developed around the notion of the urban fabric by the French school of urban morphology. The analysis of the fabric of the four residential subdivisions thus proves that this method of operation is not condemned to make mediocre urban spaces. This demonstration is the result of a preliminary conceptualization of the notion of morphological quality. The latter is thus part of a kind of conceptual interlocking: morphological quality is one dimension among others of the concept of urban quali-

ty, which itself relates to the notion of quality, or even the living environment (Herrmann, 2017).

The Algerian state in the collection of architecture and urban planning has published a book entitled "Development of subdivisions - Recommendations" addresses the issue of subdivision as an operational urban planning procedure in the creation of the urban fabric. Currently this mode of urbanization is often reduced to the creation of building lots; it is a very restrictive vision resulting from the poor quality of its design and realization. This document proposes a design approach presenting a general method which draws the attention of the designer to the need to approach the study of a subdivision project by considering it as a full-fledged urban planning operation, taking into account all the problems of development. This work, based on the analysis of a series of projects, has formulated certain recommendations to be respected in order to make the subdivision.

### **2.1. Quality of life in residential spaces: A conceptual precision**

The state of the art of this study is to identify the notion of quality (architectural, urban and environmental that is lacking in the subdivisions inherent to the city of Bechar.

This notion has proved to occupy the first plans of professionals in recent decades, since it represents a preponderant indicator of a decent deployment of the living environment of the inhabitants, and urbanization (Hamam et al., 2013).

This notion has hitherto been ambiguous, because researchers have not been able to give it a unanimous definition. Because of these plural aspects (political, social, economic, cultural, natural/built physical), the notion of quality is approached from various theories.

Barbarino-Saulnier (2005) refers the notion of quality to the material physical and social aspects (societal needs, representations and aspirations, which must be highlighted through sociological surveys). According to Papageorgiou (2008) and Sénécal et al., (2005)

it depends on the biophysical, environmental and social context, in addition to accessibility (the perception of the inhabitants being strongly linked to the accessibility of services and equipment), the variety and the spatial arrangement of the services.

The quality of life in the city, depending on physical, economic, social and environmental factors, would be assessed objectively and on the contrary subjectively, if it depends on the perceptions and aspirations of the inhabitants (Messafri et al., 2021). It is therefore apprehended according to the subjective and relative dimension (Dind, 2009). For Chausson (2014) urban and environmental quality refers to the quality of life relative to what the living environment can offer to the individual.

### **3. Methodology**

To know the ins and outs of this situation in Algeria and in the city of Bechar in particular, we will adopt a method of quantitative and qualitative evaluation of subdivisions (evaluate to move towards a quality subdivision).

We will proceed by a general quantitative study on the subdivisions in Algeria and their distribution in the city of Bechar (case study) according to several criteria: historical, legal and geographical. Then, via a representative sampling, we will adopt a sociological approach, in the form of a questionnaire, to apprehend the quality of subdivisions.

The survey is the most important part of this research work, it will allow us to build a reliable data collection, and it will help to establish a detailed inventory on the realities at the level of the subdivisions, to understand the relationships that exist between the designed and the lived. Self-reported life satisfaction was used as a proxy indicator of quality of life based on cross-sectional survey data[...] (Arifwidodo, 2012)

### **4. Subdivision in Algeria, situation and genesis**

Until its independence, the subdivision represented a physical-spatial process of a development model, as a new form of individual housing within the

urban environment. But as a result of post-independence urban expansion and the ever-increasing need for housing, the subdivision becomes an operational tool that best suits the local way of life and culture, and the most solicited by the population. This model is a response to new urban housing problems.

If at the beginning of the housing crisis, the collective housing programme was a priority, the expected results are not the same, the constructive technology among others is often indecent and in addition the socio-economic situation of the country.

The initiative of the programs of subdivision and servicing of land to be subdivided comes to parry this crisis situation from the 1970s. From now on, plots of land to be subdivided are sold to individuals.

The R.G.P.H (General Census of Population and Housing) of 1998 indicates the predominance of the single-family house in the structure of the housing stock. In fact, more than half (55.26%) of the dwellings are single-family homes, compared to traditional houses and buildings, which represent respectively 19.87% and 16.78% of the total number of single-family homes (See Figure 1).

This numerical predominance of the single-family home can be explained in particular by: The heritage from the colonial period of a housing stock consisting mainly of single-family houses, the boom in illegal self-construction in the 1970s and the large number of communal subdivisions built during the 1970s.

According to MATUC (Ministry of Town and Country Planning, Urban Planning and Construction), the growth of this main form of urbaniza-

tion during the 1970s is deployed by two important points: The evolution and integration that allows this type of habitat to improve and expand over the years and The inability of the state to meet the growing demand for housing

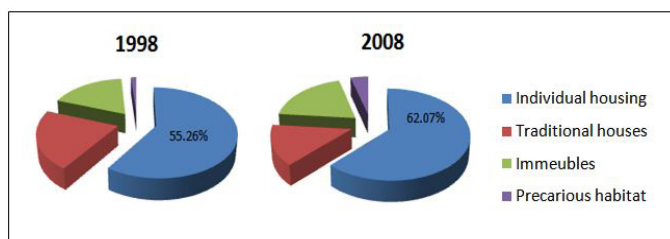
To contain illicit construction unparalleled in the 1970s, the state decided in 1982 to moderate the regulations relating to building and subdivision permits and to bear the costs of servicing the land reserves of the subdivisions.

The first five-year plan (1980-1984) also provided for the allocation of approximately 250,000 subdivisions for private individual construction, hence the reduction of illegal constructions and the solicitation of official communal subdivisions.

During this period, Guerroudj (1980) notes that Algeria has had a strong decade in terms of housing construction, During the 1980s, deliveries increased from 40,000 units in 1980 to about 80,000 units per year between 1985 and 1988, with a peak of 150,000 units, Individual housing accounted for approximately 600,000 lots. Yet it remains limited and fails to meet the needs of the population, not to mention the amount of space it consumes.

From the 1990s with the liberalization of the land market by law n°90-25 on land orientation which puts an end to the provisions of communal land reserves, the responsibility of the State in the elaboration of legal instruments and its encouragement for the private sector to supervise and control urban development operations, have resulted in the creation of a significant number of residential subdivisions in various forms and with various characteristics: promotional/social, private/state-owned. These subdivisions are built by the inhabitants according to their financial means with the intervention of the State in the viabilisation of the lots by the installation of drinking water supply pipes, sewerage collectors, and the creation of roads.

The purchaser of the plot of land to be built on was entitled, upon presentation of a building permit, to a bank loan to finance its construction et access to building materials from public agencies at affordable prices. The pro-



**Figure 1.** Graph showing the distribution of the total housing stock (inhabited and unoccupied) by type of construction in 1998 and 2008, (Source : R.G.P.H , 1998, 2008).



duction of individual housing encouraged by these provisions is growing quantitatively very rapidly (Figure 1), but what about the built environment and the architecture adopted? Madaci (2010) affirms on the basis of his personal findings and observations, research and a publication dealing with the issue of new individual housing, the built framework produced tends, with very few exceptions, towards uniformity. Large and medium-sized urban centers are developing to the detriment of the traditional and historic art of building, and our cities and regions are becoming commonplace.

### 5. The production of subdivisions in Algeria, the role of actors and quality stakes

The study and realization of subdivisions requires the intervention of a multiplicity of actors: the local population, the landowners, the acquirer of the plot, the builder of the house, (often the acquirer), the developer (municipal land agency or APC (Communal People's Assembly)), private cooperatives, social builders, OPGI (Real Estate Development and Management Organization), The state: wilaya, daïra, other ministries, economic and banking agents, the designer: public or private design office, the designer of the house, (private individual, architect...), the technical services of the state (various ministries...), national companies, private companies, notaries, surveyors...

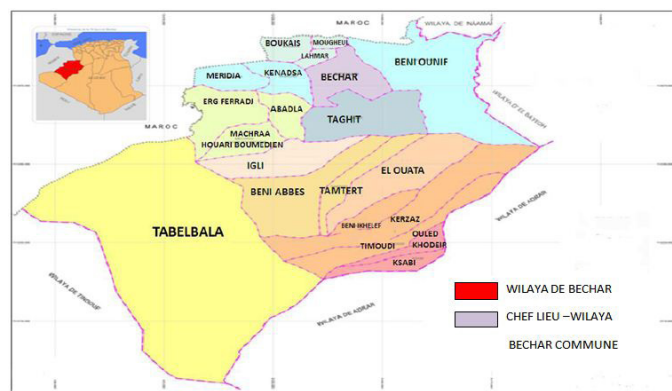
These actors are involved differently in the production of subdivisions and at different scales, adopting a linear approach, starting with programming, through design and administrative compliance to the implementation and management of the subdivision. This reinforces the quality of the final result, the roles of the parties being respective and hierarchical, each respecting the tasks of the others. In this type of housing, the users themselves have become "designers" out of financial necessity. In some cases or by choice in others, and give themselves the right to make perpetual changes to their homes. The architect did not find his place as a link in the middle of this chain; his interven-

tion is mostly limited to giving a legal character to the procedure, and not as the bearer of an architectural act.

The set of equivalences (and substitutions) allows on a route that remains valid to engage in an open discussion with the various stakeholders: elected representatives, residents, project owners, technicians. A simple simulation system makes it possible to vary the density, to specify subdivision programs, measure their effect on public spaces, etc. It also makes it possible to divide the phases of realization and to distribute the interventions. It makes it possible to articulate diverse architectures while maintaining control of major public spaces. And this diversity, which is not posed and imposed as a formal will a priori, but that arises from the management of these programs, is also a source of enrichment of the urban landscape and ensures the quality of the living environment.

What makes the living environment of Elders goes far beyond the home, even if this one is the center of it. To the intimate and individual sphere of the dwelling, one must add the close neighborhood, the social link, the continuum of services and shops that make daily life easier. The proliferation and proximity of services, hygiene, the development of public spaces, comfort and safety [...] are therefore part of the notion of living environment (Franco, 2010).

Today, the measurement of the quality of living environment within the subdivision is no longer dependent on the quantity of services provided; quality is now emphasized through in-

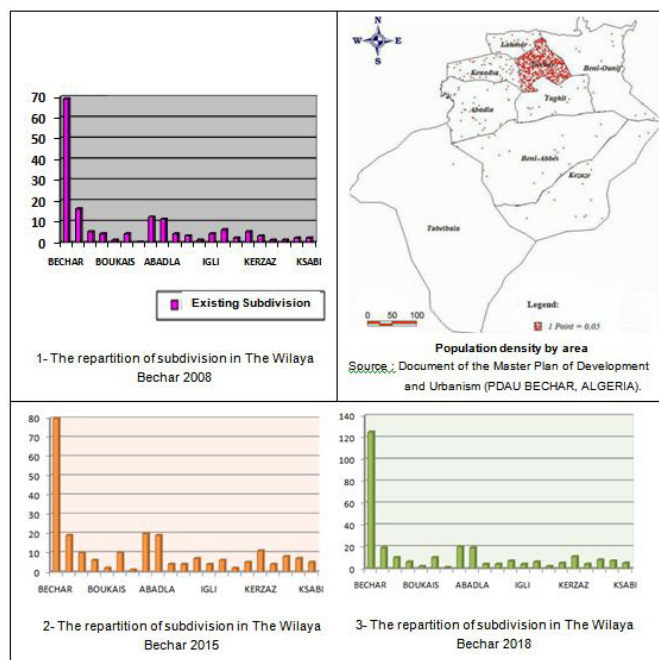


**Figure 2.** Map of the geographical location of the wilaya and the commune of Bechar (Source: Direction of commerce of wilaya (DCW Bechar), 2016).

dicators such as: hygiene, the virtues of public spaces, the proximity of facilities and the guarantee of safety. The interventions of the actors in the field who together contribute to the quality of the living environment offered to the inhabitants allow to solve contrariness in a sustainable way improve the management of these operations by taking better account of their reality (urban configuration, expectations and uses of the inhabitants ...) in the organization and implementation of services.

### 6. Presentatiton of the city of Bechar "case study" and subdivision distribution

At the gateway to southwestern Algeria, Bechar boasts a colossal area of 161,400 km<sup>2</sup> (Figure 2).



**Figure 3.** Graphs showing the number of subdivisions per commune in 2008, 2015 and 2018, and the relationship with the population density of all communes in the wilaya (map), (Source : Prepared on the basis of data from Directorate of Land Planning and Development (DPAT BECHAR, ALGERIA)).

**Table 1.** Historical distribution of subdivisions, (Source : prepared on the database of the (AGFWB and DUC BECHAR, ALGERIA, 2012)).

Period	Number of subdivisions created	Rate
1960 – 1980	06 Subdivisions	6.90%
1980 – 1990	20 Subdivisions	22.99%
1990 – 2002	54 Subdivisions	51.71%
After 2008	55 Subdivisions	18.40%

### 6.1. The distribution of subdivisions in the city of Bechar

As it was necessary to respond urgently to the demand for housing, the realization of subdivision programs was seen in the obligation to be established in the empty urban pockets or residual, or along the main roads. On the other hand it should take into account, in the interest of the community, not to deplete all the land reserves and especially the suitable areas.

The distribution of subdivisions in Béchar followed a series of criteria, geographical, historical and legal.

#### 6.1.1. Geographical distribution

The figure 3 show the relationship between the population density per commune and the number of subdivisions established in the commune of Bechar compared to the other communes of the wilaya. This shows us its almost total possession of the programs of these operations in the quantitative and temporal aspect to the detriment of the quality

#### 6.1.2 Historical distribution

The subdivisions were established along the lines of growth of the city according to a historical logic (see table 1). After 1990, it is the great boom of the subdivisions in Bechar (creation of more than 100 subdivisions), the local authorities set up bodies of management and regulation of the urban land, called land agency, that they are communal or inter-communal, or of wilaya, these last ones act for their own account and for the account of the territorial authorities.

#### 6.1.3. The legal distribution

This highlights and underlines the preponderance of the role of public actors, in the case of the APC (the commune and the land agency). It is an exclusive prerogative of the State on the management and regulation of urban land, relating to subdivision. The private partner is rarely involved. 6.90%.

### 6.2. Exploratory approach

The survey is the most important part of this research work, it will allow us to build up a reliable data collection, and it will help to establish a detailed

inventory of realities at the subdivision level, to understand the relationship between the conceived and the lived.

But first we will proceed with an exploratory step, to provide us with the necessary elements for the development of the investigative tool: the main investigation.

This exploratory work is based on a free interview, which gives respondents the opportunity to freely answer the following general question: «Tell me about the living environment of your subdivision. », within their own frame of reference. This, in order to deepen the knowledge around the subject under study, since it is through the communities that the realities of the subdivision can be revealed.

Thus, the choice of persons to be interviewed targets a qualitative sample which rather ensures the variety of interviewees. These are spread over three subdivisions selected according to: (see Table 2)

The chosen subdivisions will be presented as follows: (see Figure 4).

### 6.3. Synthesis of free interview

The data collected through this pilot study known as (pre-investigation), will serve as the conceptual basis for the preparation of the investigative tool used in the main investigation. We have selected some of them:

#### 6.3.1. Social characteristics

Which confer the quality of habitats (the size of the household, the professional status, the social status, ...), the mode of occupation of the dwellings, as well as their representations, their needs, the constraints which they face, or on the contrary the positive points which qualify the housing in its district.

#### 6.3.2. Urban and environmental specificities

These are characteristics capable of evaluating the quality of life of the inhabitants in the dwelling, but also in its extension in the external public spaces, the daily practices, as well as the modes of pedestrian and mechanical travel.

#### 6.3.3. Architectural characteristics

Related firstly to the existence and conformity of the building permit, and

secondly to the state of the buildings in general architectural terms.

## 7. Interpretation of the results

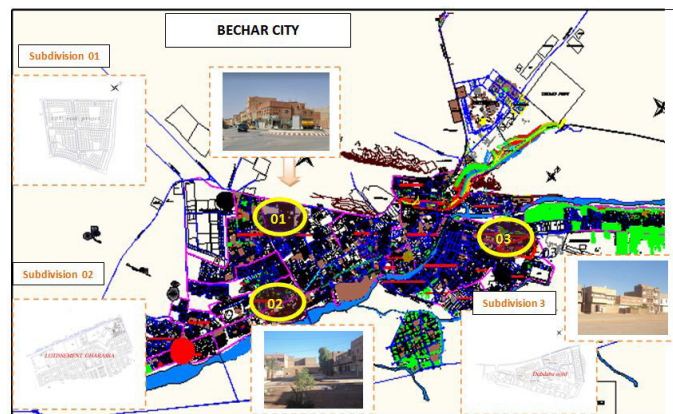
### 7.1. Social characteristics

#### 7.1.1. Household size/occupancy rate per unit

The following percentages 0%, 10%, 25%, and 55%, represent occupancy rates of dwellings with respective sizes: 02, 04, 06, and more than 06 persons. House occupancy rates are very high. A house is generally inhabited by a family of more than 06 people. (See graph01 in figure 5).

#### 7.1.2. Professional status and number of working persons with income

Most of the inhabitants of the housing estates are active if not employed in the state sector, they are in the private sector, and while very few are unemployed. See figure below, showing



**Figure 4.** Situation of the studied residential subdivisions in Bechar, Algeria on the master plan for development and urban planning of Bechar city, 2012.

**Table 2.** Sampling criteria for representative cases of residential subdivisions in Bechar, Algeria. (Source: Authors).

SAMPLING CRITERIA	Periodicity	(from 1979 to 1999): a period which is characterized by the realization of an important number of subdivisions in the city of Béchar
	The situation in the urban fabric	Searching for a balanced distribution on the city map by being embedded in the different growth poles of the city.
	Legal status	For those whose property is communally owned, whose management is the prerogative of the local land agency and. This does not include private subdivisions as they have only recently been realized.
	The size of the subdivision and the number of lots	The selected subdivisions occupy a fairly large area of urban perimeter between 10 to 20 Hectare whose number of lots are varied. The average area of lots varies from 100 m <sup>2</sup> to 300m <sup>2</sup> , this is the dominant plot, this range is part of the national policy of subdivisions based on urban densification and social mix.



the preponderance of employed inhabitants. (See histograms 2 and 3 of figure 5).

### 7.1.3. Mode of occupation of the dwelling house

The following figures represent the mode of occupation of the dwelling house within the allotment: 80% of the inhabitant population is the owner of the dwelling against only 20% who are tenants (See graph 4 of figure 5).

### 7.1.4. The image of the subdivision

When we asked the inhabitants what characterizes these subdivisions the most? They opted a priori for answers related on the one hand to calmness, and on the other hand to the sociability provided by the good neighborhood.

But despite this, the urban and architectural landscape of the subdivisions, so isolated from the city, shows an unhealthy image of building sites whose constructions remain unfinished (See figure 6).

## 7.2. Urban & environmental characteristics

Concerning urban and environmental characteristics, the population refers A quasi-total absence of any development of outdoor spaces with a rate of 65%. Then, 40% mention the unpaved roads and the inexistence of sidewalk development. Residents raise in particular the lack of amenity space such as benches for rest, playgrounds for children, lighting is not enough. Through their answers, believe that despite its existence by the initiative of the inhabitants, the greenery remains insufficient (sign of greed for green space and nature). The vegetation remains scarce, and insufficient in the subdivisions, because of the maximum occupancy of lots by compact forms, devoid of gardens and plantations. They also show a weak presence of local shops and some basic facilities, useful to the population living there (See figure 7).

## 7.3. Architectural characteristics:

### At the housing ladder

As far as the construction time is concerned 60% of the population builds their houses in the course of 03 to 06 years of age and there are those that are more than 10 years old. In the face of this, only 17% of the population has been able to finish their building (facades and exterior design): that's a good reason to make it look like an open construction site.

A priori the whole population respects the by-law, since they hold building permits with the exception of 10% (figure 8).

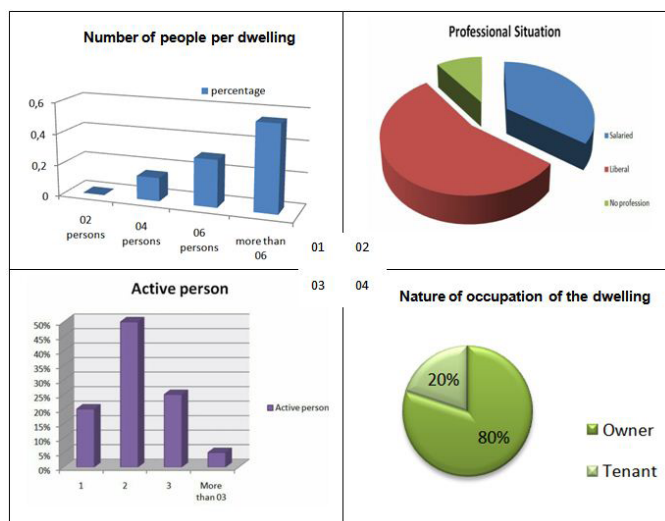


Figure 5. Graphs corresponding to the Social Characteristics of the inhabitants. (Source: Authors).

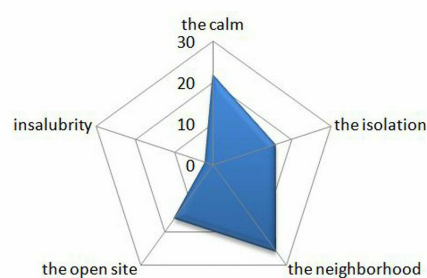


Figure 6. Diagram representing the image that the inhabitants have of their subdivision.

### 7.3.1. Compliance with the building permit

The majority of constructions have a building permit, but only 20% of the population respect the building permit when they build (See figure 8), the majority makes changes, justified by the fact that : the design does not meet the needs of such a large family, the spaces they consider lost, they turn them into living rooms. Only 25% of the population consults the architect during their construction.

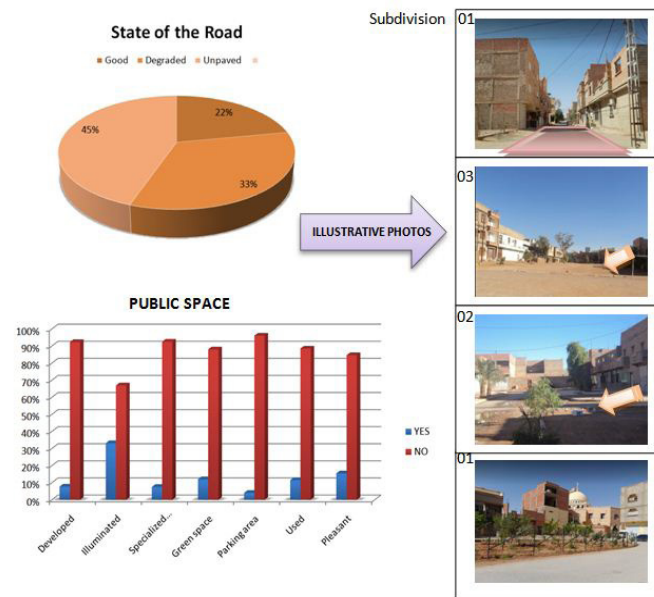
The incompleteness gives an image of disorder due to the construction

materials still present on site, but what there is drawn from the visual, is that the logic of the people of this city, is not to build then to live, on the contrary the two operations can be made at the same time, hence the great confusion regarding the phasing of the process, which has a negative impact on the aesthetic image of the subdivisions. What also attracted our attention is that, this is not a practice limited to poor people; the character of living before completion also affects those who have enough money. We have also noticed that the user tries to finish the interior of the houses without being interested in the exterior, so we judge that he does not intervene consciously on the fabric of the subdivision, it is not of interest to him. The negative impact of this clearly perceived incompleteness has strongly affected the urban and architectural quality of the city.

## 8. Results and discussion

In this study, we have addressed the concept of quality of life in residential subdivisions, in its urban, environmental and architectural dimensions, via the survey method. This field investigation allowed us to highlight the recurrent problems of the subdivisions and to identify the reasons for this situation. The survey reveals that almost all the components of the urban environment of the subdivisions are deficient, or even dysfunctional in formal and/or functional terms. These are incomplete constructions, poorly defined public spaces, lack of facilities, lack of green spaces and playgrounds, unhealthy neighborhoods, pollution from various sources of nuisance, degradation of the roads, lack of public lighting and street furniture. This situation has led to a significant deterioration in the quality of the subdivisions of the city of Bechar, and the living environment of their inhabitants.

Also, in spite of the dominance of the population with a (small or large) income, construction remains an eternal work in progress with an insignificant completion rate (whatever the cumulative income). This aspect considerably damages the image of the built environment. Moreover, the rate



**Figure 7.** Graphs relating to the quality assessment of public spaces in the subdivisions of Bechar. (Source: Authors).



**Figure 8.** Diagrams showing the housing characteristics of the subdivision. (Source: Authors).

of non-compliance or partial compliance exceeds the 80% threshold. This is due to a number of reasons, the most important of which are: the inaction of the services in charge of the control and follow-up of the realizations. Many dwellings do not have their certificate of conformity, since they have not finished the work of their constructions, or that certain parties are completely unaware of the existence of this urbanism act which is not popularized. An act that is equivalent to a permit to live, rarely, if you are dealing with a notary for any possible land transaction, that you can hear about a certificate. One of the main causes of the transformations committed in the subdivisions, is the generalization of the standard specifi-

cations, independently of the specificity of the site and the category of the people who live there, it is the same document valid for the north as the south of the country. [...]The regulations and standards of the subdivisions concede to the designers the possibility of conferring solutions that are able to integrate them in their contextual environment (Eran, 2004).

In sum, the degradation of the quality of the urban environment in these neighborhoods (which have various problems and multiple failures), is due on the one hand to poor urban management, and on the other hand, to the negative behaviors of the inhabitants towards their environment (irresponsibility and disinterestedness).

### 9. Conclusion

The accelerated demographic growth, the incessant need for housing has put forward the realization of a good number of subdivisions. Only, in doing so, the quantitative aspect imposed by the emergency, turns out to take precedence over the qualitative one. The quest for quality of life in these living spaces (called subdivisions) highlights through this research a number of recommendations. They are intended to encourage applicants to think about real needs, and take into account the potentialities of the site. The aim is to reconcile coherence between urban development and the quality of the living environment.

The realization of subdivision must be based on well thought-out choices that are coherent with the local context.

This preliminary approach is very useful in the absence of urban plans that manage the commune's territory. It is generally guided by an approach on the scale of the communal territory. In this case it represents a preliminary exploratory study of the commune to bring out the weaknesses and assets of the commune.

The urban and landscape analysis is an essential and indispensable element to create a quality operation. This study must be entrusted to specialized professionals (architects, urban planners, landscapers, and geometers).

Finally, it would be desirable to initiate a reflection on urban and architec-

tural specificities adapted to this type of operation. The promotion of the quality of life within subdivisions is an imperative necessity to provide to the inhabitants.

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