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Participatory Social Housing in Algeria: from Quantity to Quality

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Abstract

Man has always sought, first and foremost, to build his dwelling in any form of human settlement before considering other necessities. This demonstrates the vital importance of habitat for humans and the significant role it plays in the creation of cities or even in shaping their development. Given its size, scope, and pace, habitat exerts a dominant force in urban evolution, with other necessities becoming secondary outcomes of habitat and generally being subordinate due to evolution.
This research aims to conduct an objective evaluation of the quality of participatory social housing by assessing the satisfaction of residents in the municipality of El Khroub. Its objective is to address research questions based on a specific epistemological foundation and defined methodological choices. Within our study framework, we have employed an experimental and phenomenological approach, combining observation, field analysis, and surveys.

Keywords

Housing ;
Housing quality ;
Participatory Social Housing ;
Analysis and Evaluation of Quality of Housing .

السكن الاجتماعي العمومي في الجزائر،من الكمية الى النوعية

ملخص

لقد سعى الإنسان دائمًا قبل كل شيء إلى بناء مسكنه في أي شكل من أشكال الاستيطان البشري قبل النظر في الضروريات الأخرى. وهذا يدل على الأهمية الحيوية للسكن بالنسبة للإنسان والدور الهام الذي يلعبه في إنشاء المدن، وحتى في تطورها. نظرًا لحجمه ونطاقه وسرعته، يمارس الإسكان قوة مهيمنة في التطور الحضري، حيث تصبح الضروريات الأخرى نتائج ثانوية للإسكان وتكون تابعة بشكل عام نتيجة للتطور.
يهدف هذا البحث إلى إجراء تقييم موضوعي لجودة السكن الاجتماعي االتساهمي من خلال تقييم رضا سكان الخروب. هدفها هو معالجة أسئلة البحث على أساس معرفي دقيق وخيارات منهجية محددة. كجزء من دراستنا، استخدمنا المنهج التجريبي والظواهر، والجمع بين الملاحظة والتحليل الميداني والاستبيان.

الكلمات المفتاحية

السكن؛
نوعية السكن؛
السكن الاجتماعي التساهمي؛
تحليل و تقييم نوعية السكن.

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I- Introduction :

In Algeria, the urban framework has undergone an unprecedented expansion over the past decade, driven by the significant implementation of housing programs and public facilities. Following the apparent success in meeting the challenge of quantity, a new phase is now being initiated: that of quality. The stakes are clear; it is about ensuring citizens a better life in a better city.

The concept of habitat quality is comprehensive and evolutionary in nature. It has evolved into a trend that is increasingly complex and has expanded to encompass all elements of habitat. There are several key challenges related to improving habitat, both from a social perspective and in terms of economic and environmental aspects.

Discussing habitat quality requires an analysis of various traditional criteria, based on convenient indicators such as cleanliness, stability, safety, comfort, durability, flexibility, and aesthetic appeal. Housing must be distinguished from the living environment in which it is situated.

The battle of quantity seems to have been won, and the issue of quality, which has always taken a secondary place in various policies, is now arising. The city of Constantine exemplifies a rapid transition from a small urban town to that of an economic, industrial, and cultural metropolis. It boasts a significant housing stock of various types and diverse typologies. The city has experienced several modes of construction and housing production, along with the initiation of numerous reform projects.

I.1. Problematic

Hence, in the context of our investigation, we will explore the aspect of quality within participatory social housing by concentrating on the municipality of El Khroub as a location for sampling and analysis within the city of Constantine.

This leads us to pose the following inquiry:

- How can we ascertain the quality benchmarks of participatory social housing by gauging residents' contentment in the municipality of El Khroub?

To render the research query more concrete, we will define the issue operationally, which involves converting the research question into a hypothesis. For our research query, we posit the hypothesis:

- The quality of housing has predominantly adhered to traditional criteria, relying on practical indicators such as cleanliness, stability, safety, comfort, durability, flexibility, and aesthetic appeal.

In this respect, our study encompasses:

- The primary objective of this research is to objectively evaluate the quality of participatory social housing in the municipality of El Khroub.
- Striving for continuous enhancement in quality by seeking to quantify it.
- Comprehending and outlining a set of criteria that influence urban and architectural quality to validate them within the examined production method.

To achieve this goal, all research endeavors are founded upon a subject matter that aids in responding to research inquiries and are rooted in a specified epistemological stance and methodological selection. In our study's case, we have chosen an experimental approach alongside a phenomenological one that entails on-site observation and analysis as well as surveys.

This study introduces a scientific methodology for assessing the architectural and urban quality of participatory social housing. It aligns with a relativistic perspective that values observation and assessment through stakeholders' and residents' viewpoints.

I.2. The debates around the concept of housing quality

The concept of habitat quality is in a constant state of development. The criteria and viewpoints concerning living conditions naturally progress alongside technological, economic, and social advancements. These advancements are paralleled by the corresponding evolution of housing styles, ways of life, and associated socio-cultural perspectives. While it is crucial to differentiate between housing itself and its surrounding environment, traditional standards for housing quality predominantly rely on practical but one-sided indicators like repair measures, which are gradually becoming less prominent. (SAMEN,2006).

In this manner, individuals are increasingly contemplating emerging health concerns, particularly the notable decline in indoor air quality in specific residences due to a combination of heightened airtightness and the toxicity of certain materials. Additionally, there is a consideration of noise issues that can escalate to levels posing health risks.

The notion of habitat quality is thus all-encompassing, covering every aspect of a residence within its surroundings without being limited by basic standards. Addressing habitat quality requires an evaluation of the following factors:

* Hygiene
Hygiene encompasses safeguarding against moisture, infiltration, radiation, pollution, or harmful substances and organisms, along with ensuring the presence and proper operation of sanitary amenities: secure and hygienic water supply and disposal, as well as sanitary waste management.

*Stability
The resilience of a living environment is derived from the sound state of its structural components such as the materials used in walls, roofs, and flooring.

*Security
The security of a living environment entails averting everyday mishaps and fortifying oneself against intrusions and calamities.

*Comfort
Is based on tranquility (interior and exterior sound insulation), brightness (sunlight and lighting), an adapted "climatic" atmosphere, the presence and proper functioning of electromechanical equipment, and the availability of outdoor spaces.

*Durability and flexibility
They maintain their utility value over time, save energy, and allow the house to adapt to life changes.

*Good appearance
It concerns the attractiveness, quality of design, and customization of a house. As shown above, the quality of housing is determined by multiple factors involving stakeholders from various sectors, including expenditures in the housing sector as well as a significant portion of infrastructure spending.

*Comfort
The question at hand pertains to whether the comfort of a residence should be classified as a necessity or a luxury. It may appear unconventional to equate the comfort of a structure with essential needs or entitlements. In everyday language, comfort is typically correlated with privilege and favor. Does it not usually relate to financial means, social standing, or a secure retirement? This notion almost introduces the idea of luxury.

Contemplating the comfort of a dwelling might suggest that only a select few individuals have access to this state due to their resources. Nevertheless, the comfort of residences ought not to be viewed as a luxury but rather as an essential requirement since most individuals spend approximately 90% of their time indoors. Candidly speaking, we observe that the swift construction of buildings to accommodate demographic expansion since 1980 has occasionally led to substandard, energy-inefficient, and uncomfortable housing conditions.

Comfort is defined as "all tangible conveniences that contribute to well-being." Can linking comfort to health and adequate amenities alone suffice for its definition? The perception of comfort varies from person to person based on individual needs and differing levels of tolerance for discomfort. It is indeed feasible to more precisely define discomfort; in essence, comfort denotes a state where one experiences neither disturbance nor adverse effects.

Upon further examination, it can be argued that two distinct concepts warrant consideration:
Firstly, there is the aspect of comfort associated with the building itself, fulfilling its core functions as shelter for its occupants and offering sustainable and efficient protection against external elements.
Secondly, there exists a form of comfort tied to sensory perception related to factors such as ambient conditions and habitat environment (e.g., lighting, moisture levels, temperature, air quality, acoustics...). (Cercle Promodul / INEF4).

*Well-being
The most comprehensive definition of comfort is a multidimensional concept that has sparked numerous debates and tensions regarding its precise delineation. The challenge in assessing it also stems from the existence of various approaches, whether pertaining to individual or communal welfare, objective or subjective well-being, or well-being intertwined with social equity.

Well-being materializes when individuals perceive a certain degree of social equity, whether on a broad scale or at an individual level, and when their aspirations and expectations are fulfilled; under such circumstances, individuals typically experience heightened contentment. Conversely, feelings of social inequity and lack lead to notably diminished levels of well-being. Hence, it is imperative not to concentrate solely on the purportedly "objective" facets of well-being.

*The Maslow's Hierarchy of Needs
The hierarchy of needs is a conceptual framework derived from observations conducted in the 1940s by psychologist Abraham Maslow regarding human motivation. The seminal work outlining Maslow's motivational theory, "A Theory of Human Motivation," was published in 1943. While Maslow did not explicitly portray this structure as a pyramid, the depiction has gained widespread acceptance within the realm of organizational psychology due to its practicality. Maslow himself refers to it as a hierarchy and envisions it dynamically(Marketing Strategy, 2011/2015).

The pyramid is comprised of five primary tiers. Our initial focus is on fulfilling all requirements at a specific tier before addressing the needs at the tier directly above it, as outlined by Maslow. For example, it is imperative that we prioritize meeting physiological needs over security needs; furthermore, we are willing to undertake risks in circumstances where our survival is in jeopardy.

Housing embodies a crucial element of equilibrium within the family structure, symbolizing security and permanence. It serves as a vehicle for social integration and inclusion, reflecting the sociocultural status of its occupants; it should not be reduced to merely a shelter.

A residence is also emblematic of a sanctuary where individuals are meant to feel truly at ease, expressing their unique identities and forming deep connections with their surroundings.

*The concept of housing, along with the fundamental right to adequate housing, lays the groundwork for combating instability.

*Social interactions flourish when individuals have a place to call home.

*The term 'home' encapsulates notions of safety, respect, and harmonious integration into wider society.

Critiques may be present regarding the models utilized for evaluating housing quality; however, these frameworks continue to hold a crucial role in constructing profiles and guiding decision-making processes. The existence of diverse schools of thought signifies an ongoing endeavor to measure advancements or changes pertaining to the improvement of housing standards.

As posited by Merlin and Choay in 2000, it is stipulated that housing should align with the cultural norms of society and the era. Moreover, the size, configuration, internal layout, and standard of housing amenities are intrinsically linked to the economic and social framework and level (Mériaudeau, 1999).

Indeed, a residence is deemed comfortable if it possesses fundamental sanitary provisions and is devoid of any deficiencies as perceived by its occupants. Housing is classified as moderately comfortable if it exhibits one or two shortcomings, while it falls under insufficient comfort if three or more defects are identified. These shortcomings encompass the lack of hot running water, absence of indoor lavatories, no bathtub or shower facilities, inability to maintain suitable temperatures, presence of leaks or moisture issues, and inadequate lighting within the dwelling. This data is derived from statistical surveys on resources and living conditions conducted through the SRCV mechanism since 2005 (General Commission for Sustainable Development, 2012). The Quality Approach endeavors to establish a prevailing rationale within the realm of construction. (Biau and Lautier, 2004).

Despite facing criticism, housing quality models remain widely utilized as the foundation for decision-making in management. The Sustainable Forest Development Strategy (SFDS) advocates for the implementation of housing quality models to monitor environmentally sensitive areas for development, as proposed by Cheveau and Dussault in 2013. (Cheveau. Dussault, 2013)

Daniel Pinson emphasizes that the design of housing must prioritize user comfort by incorporating the following elements:

- Social considerations: an organized layout, significant interior space within the apartment, and integration of the building with public spaces that align with the practices and individual and collective perceptions of residents.
- Technical aspects: a robust building envelope and technical systems that enhance residents' ability to perform daily tasks comfortably while ensuring their safety and security.
- Aesthetic features: a combination of qualities such as volume, natural light exposure, materials, furnishings, finishes, potential for personalization, which collectively elevate comfort into a state of well-being and pleasure in living.

Certainly, this notion of comfort applies more to the interior of the accommodation than to its relationship with the rest of the territory.

In contrast to Isabelle Roudil's perspective in 2017, which emphasizes the need for a comprehensive approach to housing that considers qualitative aspects such as comfort, space, urban or rural settings, environmental characteristics, as well as its impact on employment access and professional mobility. Housing requirements and locations vary depending on the household type: families, young individuals, and the elderly (Roudil, 2017).

Since the Reconstruction era, there have been notable advancements in the housing sector; the housing inventory has expanded and modernized. However, public expectations remain high. The rapid adoption of urbanization models to tackle housing shortages has proven inadequate in adapting to demographic shifts and evolving lifestyles.

The economic downturn and the decrease in residential mobility have led to a deterioration in the quality of life for a significant segment of the population. Simultaneously, household amenities have markedly improved. Nevertheless, dwelling sizes, notably kitchens and bedrooms, have remained unchanged.

Lifestyles are also undergoing significant changes, including early or delayed children leaving home, relationship instabilities, longer life expectancy, and hosting larger foreign families who are not accustomed to high-rise collective housing.

Housing is taking on a new dimension with the imperatives of sustainable development. Building better to save traditional energies, utilizing renewable energies also means promoting construction methods and technologies that involve materials aligning with this logic.

The quality of life in the future will depend on considering all these factors. However, beyond these socio-demographic data that are prevalent in most surrounding countries, it is evident, especially in France, that there are numerous resistances to change and varied causes for these (Felzines, 2006).

The quality issue is reflected in the inadequacy of social housing in Algeria to meet the needs of users given the socio-spatial transformations occurring within the housing and, of course, a transformation of it would not happen without consequences on the exterior. The latter depends, on the one hand, on its immediate environment and, on the other hand, on the interior organization of the housing (Mazrag, 2015).

In April 2023, a high-level assessment of the overall quality of life in Canada based on statistics from the Canadian Housing Survey (ECL) and the population census indicates that acceptable housing determines whether a dwelling meets the three accessibility standards established by the Canada Mortgage and Housing Corporation, meaning it is of good quality and affordable.

The compliance thresholds for these standards are defined as follows:

• Housing quality is assessed by the occupant; a quality dwelling is one that does not require modifications or repairs.
• Affordable housing means the occupant spends less than 30% of their pre-tax income on housing expenses.
• A quality dwelling contains a sufficient number of rooms for the entire family and meets the users' needs according to the requirements of the National Occupancy Standard (NNO) developed by the Canada Mortgage and Housing Corporation and provincial and territorial representatives.

In France, housing has always been a state matter. The various housing policies have set themselves the objective of reducing construction costs in order to lessen the public burden and the amount of rent. The social aspect of housing is inseparable from its economic aspect.

Everyone has their own definition of comfort elements. According to the architect and urban planner François Leclercq, they are as follows:

1. Mutability, adapting the interior space to the users' needs, "the surface area is an essential and key criterion."
2. Brightness, linked to ceiling height and orientation.
3. The feeling of a large space, achieved through high ceilings and total habitable surface area.
4. Practical spaces, involving the surface area and layout of storage spaces, waste management.
5. An outdoor space, represented by balconies, loggias, green space.
6. An economic model, measured by housing management and land control (Leclercq et Al, 2021).

Indeed, the French have based their evaluation method on the crossroads of previous ones. First of all, that of the living-room scale proposed by Chapin in his analysis of an individual's positioning in society, which he assesses through four items: "The dominant standards of cultural goods, actual income, material goods, and participation in group activities."

They observed that while the technical quality of housing has improved, notably under the impact of thermal regulations, comfort qualities have often deteriorated. The health crisis and lockdowns have highlighted a number of flaws.

The report provides several recommendations to improve the quality of housing use:

• Increase the minimum surface area of rooms (bedrooms, kitchen, living room) in the accommodation
• Apply a ceiling height of 2.70 meters, at least for living spaces
• Opt for a double orientation to optimize natural ventilation
• Better arrange storage spaces, highly demanded by tenants.

Housing is an important component that affects the physical and mental health of individuals. Several factors influence the quality of housing: design, location, choice of materials, maintenance, occupants' behaviors, etc. (Levasseur et al, 2020).

Well-designed and maintained housing can provide occupants with a healthy and safe living environment. However, various contaminants and issues associated with housing can cause health problems ranging from nuisance to the development of diseases. It is therefore important to ensure that housing is:

• Healthy (absence or reduction of contaminants indoors).
• Comfortable in terms of thermal, olfactory, and auditory aspects.
• Resilient to climate hazards (resistance to floods and increased precipitation, adaptation to heatwaves).
• Safe (reduction of fire risks, falls, injuries, etc.).
• Adapted to different stages of life and physical or cognitive limitations.

Jacques Pillemont states that "The terms of quality generally refer to the idea of doing well with products and quality approach is a strategic, methodological approach to building" (Pillemont, 2002).

This approach can also lead to the search for certification. Other themes relate to the necessary collective belief in Quality Management or to the question of proving its effectiveness.

Quality issues are primarily about stock evolution and requalification of the existing stock. Commitment to the quality of new constructions is therefore not a sufficient condition to ensure, for the greatest number, access to a housing stock adapted to comfort standards, accessibility, and environmental respect (Barbarino, 2010).

Debates show how housing production requirements are moving towards higher quality. Elected officials, technicians, planners, developers, builders, architects, landscapers, all combine their efforts in favor of new, efficient, environmentally friendly homes that are also occupant-friendly. Housing is a factor of balance for the family unit, security, and stability; it is a means of integration into society; it is also an indicator of its socio-cultural level, and by no

means "just a building to shelter." Once the housing problem is well defined, we will address in the following Chapter III a retrospective on the various housing policies in Algeria and a detailed analysis of the different production methods and their impact on the urban, architectural, and environmental quality of the built environment.

II– Methods and Materials

Our analysis constitutes an essential step in the process of urban and architectural design. It allows studying and breaking down urban space and clearly defining the relationship between housing and the environment through various scales; it is a kind of necessary diagnosis for the proper determination of housing quality criteria.

*Descriptive analysis

This analysis was based on:

Firstly, a descriptive study of the different existing physical elements and factors in our building site, neighborhood, and environment.

The development of an analysis grid seems necessary to master the space, the challenges to properly define the essential elements for quality housing.

*The analysis method addressed to the inhabitants

It has become necessary to analyze not only the space and its components but also the analysis of user behaviors to define the problems and address them properly. For this purpose, this analysis is based on direct interviews with users, as well as the drafting of a questionnaire that addresses user behavior and their levels of satisfaction in their living spaces. To master all the elements of analysis, we worked with a survey and data analysis software that allows us to assist in the realization of a well-organized and well-mastered survey.

As in any scientific research, the choice of sampling is necessary and plays a very important role in the reliability of the results. Out of a total of 145 participatory social housing units, our survey is conducted on 14 PSH units (10% of the 145 units in Massinissa), the residents are retired low-income homeowners, whose income does not exceed 25,000 Da.

III- LSP as urban production

III.1. Public social housing in Algeria

Any housing that is totally funded by resources from the public coffers or the state budget are regarded as social housing. Social housing is designed for segments of the population who live in extremely difficult circumstances and lack the capacity to pay a high rent, let alone qualify for housing. Regarding the living area, it adheres to a specific typology (60 m2 for F3). Since 1993, this type of housing's rents has been distinguished by administered prices.

- Legal Texts

 Executive Decree No. 98-42 of February 1, 1998, relating to the terms and conditions for the allocation of public rental housing of a social nature.

 Executive Decree No. 76-2000 of April 16, 2000, completes Executive Decree No. 99-42 of February 11, 1998.

 Order No. 07/SPM of 02/21/98 setting the criteria and rating scale for access to public social housing

In accordance with the report from the Ministry of Housing and Urban Planning in Algeria, which was completed in 2007, the contracting authority must find the best solutions to respond qualitatively to the production of housing and the sense of identification that any neighborhood must provide must be affirmed so that the occupant can no longer identify with a number but rather with an aspect, a reflection, or just with a particular treatment (The report of the Ministry of Housing and Urban Planning carried out, 2007).

- Standards for the construction of public social housing

The legislative assembly in Algeria has clearly outlined the many standards for better house production through specifications for all forms of housing. The standards listed in the official journal include.

The common areas:

The handling of shared areas requires special consideration, which results in.

- ➔ The realization of a building entrance with dimensions in harmony with the scale and the treatment of the facade.
- ➔ The implementation, at the level of the halls and stairwells, of appropriate and quality coverings.
- ➔ The installation of mailboxes in the appropriate location.
- ➔ The installation of quality stair railings restored the charm of this part of the building.
- ➔ The development of accessible terraces where possible.

Orientation:

The preferred orientations of the living rooms and kitchens must be respected by the way the homes are oriented. In order to benefit from the comfortable conditions provided by the natural elements, considerations other than the desired sunshine must be made for the microclimate, the layout of the land, the vistas, and the predominant winds.

Spatial Organization of Housing:

The average size of an F3-type accommodation corresponds to a living area of around 67m² with a tolerance of (+) or (-) 3%.

Each accommodation will consist of

1- A living room
2- Two bedrooms
3- A kitchen
4- A bathroom
5- A toilet
6- A clearance space
7- Storage volumes

The net internal dimensions of these elements (1 to 7) constitute the living area housing.

A dryer

Living room:

It must be situated near the front door so that guests may enter directly without having to go through areas designated for private family activities. Depending on the size of the lodging, its average surface ranges from 19 to 21 meters.

Bedroom:

Its surface should range from 11 to 13 m2. A maximum occupancy rate must be possible given the ratio of these dimensions and the positioning of the openings.

Kitchen:

In addition to its usual functions, it must allow meals to be taken; its surface is of the order of 10m².

Bathroom:

It has a 3.5m2 average area. A regular-sized bathtub is a need. For a washing machine with dimensions between 60x70 and 70x70, a space must be set aside. If required, a place in the dryer can be made available.

Toilet:

Its minimal surface is 1 m2, and it is constructed so as not to obstruct its use, particularly when opening and using the door. Toilets ought to be built with ventilation and natural light.

Clearance:

A maximum of 12% of the accommodation's living space may be taken up by clearances (internal circulation, halls, and corridors). They must also guarantee the distribution of power and contribute as much as they can to the internal animation of housing through its design and architecture.

Storage:

The surface areas of the storage to be provided (not including the kitchen storage) vary from 1 to 2m².

Dryer:

It widens the kitchen; it must be at least 1.40 meters wide. The extended laundry should be as unnoticeable as possible from the outside while still receiving enough sunlight. This area could be utilized as a useful room attached to the kitchen.

Housing equipment

Sanitary equipment:

Each of the places listed below must have sanitary facilities that are developed and implemented in compliance with DTR E.8.1.

Kitchen:

The volume under the vegetable garden will be made up of a bench measuring 2.50 x 0.60 m2 and 0.90 ml in height that will be transformed into a cabinet with an outward-opening door. a sink built into the work surface, a mixer tap, and a heating installation for the bath. The kitchen bench may be constructed from masonry, prefabricated components, or assembled from kits that have already been assembled.

Bathroom:

A bathtub with mixer tap and hand shower and a washbasin with mixer tap.

Toilet:

A seat with an English or Turkish bowl according to the request of the client, equipped with a flush.

Clearance:

A pre-installation for gas heating

Dryer:

A one shut-off valve and a drain with a siphon are included in the washing machine pre-installation. Per house, a subdivisional water meter must be installed.

Electrical equipment

The electrical installation must be completed in accordance with industry standards and using materials of a reputable quality. Electrical work must comply with:

- civil protection regulations, recommendations, and requirements;
- SONELGAZ regulations, recommendations, and requirements;
- the recommendations in force.

Each space must receive the following equipment:

- Living room

1 or 2 light points (1 DA + 1SA) or 1 DA
2 or 3 socket outlets with earth (P+T)
1 collective TV aerial socket.

- Bedroom

1 light point SA.
1 socket
1 collective antenna socket in the 2nd bedroom (parents' room)

- Kitchen

1 SA light point on the ceiling
1 strip of 0.60 with socket + T above the vegetable garden
2 socket outlets with earth (P+T) at 1.60m from the ground.

- Bathroom

A light point SA
A shelf and mirror above the sink
1 wall strip with socket

- Toilet

1 light point SA

- Clearance

1 or 2 light points SA or VV

- Dryer

1 light point with a waterproof porthole.
Thus other Norms and criteria are not within the scope of our study.

III.2. Descriptive Analysis of Participatory Social Housing in Massinissa

Our research area is located in the Massinissa new city. It is characterized by its location on the RN20 and RN 03 expressways, two important thoroughfares, and it takes the shape of a diverse urban fabric (individual, communal, and green space housing) (See Figure N°1).

Figure 1. Geographical location of Massinissa
Source: Google Earth. January,2024

The area under study is part of the new city of Massinissa. It stands out for its location on the two important road axes, the RN20 and the expressway RN 03, and presents itself in the form of a heterogeneous urban fabric (individual and collective housing and green space).

The intervention area has a mixed purpose between an existing fabric (residential and facilities) and virgin land, a very important strategic situation (on a very important road axis RN N°3).

The site covers an area of 243.72 hectares, it is an extension site intended to accommodate new programs that will be subject to development and infrastructure in the short and medium term. It is a residential area whose dominant function is collective housing created in 2004. This area is in Pos 02. Cité 145 logs LSP, in block form, in R+4 with 10 F3.

***At the apartment level**

Spatial organization of housing:

An organized space is a space that includes facilities allowing people to live, that is to say, to perform the functions that are necessary for them. These functions can be developed in a more or less complex way.

This type of housing specifies the living area (60 m² for F3) (See Table N° 1), we noticed that the living rooms are close to the main entrance, which is good for integration and control in the apartment.

Kitchens and toilets, although close to the entrance, are segregated.

Only one balcony in the living room which can be used for storage.

Table N°1. The spatial organization of housing

DESIGNATION	DISTANCE IN M
Entrance hall width	3
Stair step or to the arrival of the access ramp	4
Building access door width	1,5

Source : 26 official journal of the Algerian republic N° 13, Wednesday 12 Jumada Ethania 1439 Corresponding to February 28, 2018

The coverings (Tiles, skirting boards):

*The lack of tiles and skirting boards available.

Woodworking and masonry (The doors, the windows, and the kitchen garden):

*Vegetable garden in the kitchen with a slab and without a door under the vegetable garden or a cupboard.

*Small windows and interior doors are not made of red wood.

Sanitary appliances (Sink, Kitchen sink, English toilet seat, Bathtub):

* Sink, made of vitrified porcelain, placed on a stand, non-splashing type with (02) holes for mixer, connected to water.
* Simple bathtub with faucet, no shower.

Indoor evacuation:

*A siphon (drain) on the balcony.

Metal Joinery:

*The doors are a bit small, made of metal sheets (see photos 1 and 2).

*No closing system for the building's door.

*A set of metal mailboxes is gathered at the ground floor hall level.

Photos 1/2: The entrance doors of the LSP building
Source: Author 2023

Facade Treatment:
*The facade of buildings is starting to deteriorate, time and external aggressions are often the cause, and sometimes renovation can no longer wait.
*It is necessary to protect the facade permanently against damage related to rainwater, while allowing the surface to breathe.
*The involvement of the user has given a poor urban landscape to the city through their practices and external interventions on the building (see photo 3).

Photo.4. The facade of the residential buildings
Source: Author 2023

*** At the neighborhood level**

Public lighting:
Public lighting is available in the exterior areas of buildings.

Security:
The neighborhood is quiet, it is located at the main access a few meters from urban security.

Green area:
Although the state tried to develop a space near the study area, but the work did not live up to expectations. The site is not well done and not well laid out.

Car park:
Parking space is available, there is a charge.

Infrastructure:
-The road network is well developed and responds adequately to the framework of the municipal grouping. Connections with the regional metropolis are provided by national and other secondary roads.
-The availability of different types of transport in Massinissa.

*** Environment**

The relationship of the site with the center
*Compared to Massinissa: Participatory social housing is located in the center of Massinissa, close to the infrastructures and various necessary equipment.
*Compared to ACT Khroub: housing is a few kilometers away from ACT Khroub, so Massinissa remains a new town which offers its inhabitants various services except the administrative services are in ACT Khroub.

In conclusion, we can say that there are disorders and construction defects during the construction of the housing and that the latter do not comply with the standards in force previously set.
All these observed implementation problems (execution defects) were examined and analyzed to limit the consequences of nuisance.
An analysis of residents and their behavior in their homes will be presented in order to assess their well-being through the degree of satisfaction in their inhabited spaces.
The main goal is to identify the discomfort and the type of problems encountered in order to draw and propose practical recommendations.

VI. Result and interpretation

The acquisition price of the PSH

The cost of housing acquisition, which was reasonable (1850 Da per month) given that the residents are pensioners with monthly incomes that do not exceed 25000 Da, according to the locals, makes the PSH formula fascinating.

Sunlight

Sunlight is one of the factors to consider when deciding how to position the house. The homes in the city under study have two facades that are well exposed to the sun throughout the day.

Comfort and safety

Undoubtedly, a number of variables are necessary for comfort and well-being, among them the availability of daily drinking water, gas, power, and a phone line. In actuality, the occupants feel secure within their homes.

Sanitation

A home's indoor air quality is crucial for comfort and well-being. Additionally, the right humidity level is needed for this. If the humidity is too high, condensation could occur. The air could be overly dry if the humidity is too low (Juliette, 2023).

After processing the results of the questionnaire, more than 85% of homes suffer from the problem of humidity in different rooms of the home.

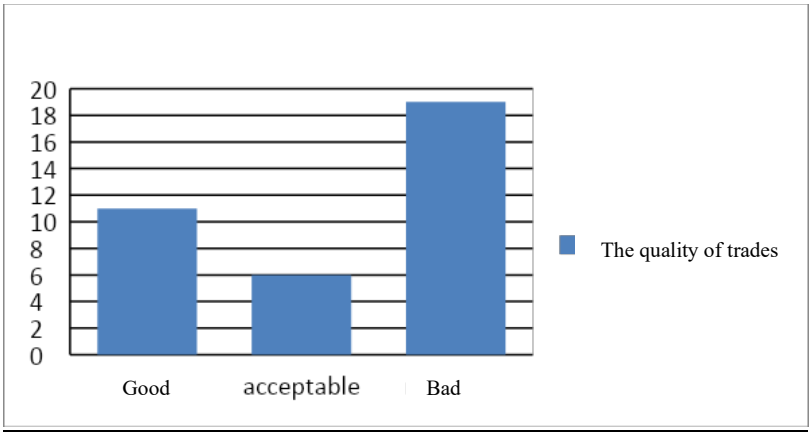
The condition is typically caused by a number of factors, including the materials porosity, the amount of water under the structure, and capillary rise, which can result in the appearance of a number of annoyances on the walls, including mold or white spots as well as cooking, taking showers, bathing, and drying clothes. (See Photos N° 05 and 06).

Photos N° 05 and 6: Humidity in the bathroom
Source: Author 2023

Photos N° 07: Humidity in the Kitchen
Source: Author 2023

The quality of secondary trades

The following elements are represented by the architectural or secondary trades: masonry, insulation, plastering, painting, hard and flexible coatings, plumbing, heating, electrical, and lighting (See Graph N° 01).



Graph N° 01: The quality of trades at the PSH
Source: Author 2023

In this respect, it is clear that the vast majority of the populace is unhappy with the caliber of the tools and labor utilized by the various governmental agencies, such as earthenware and tiling.

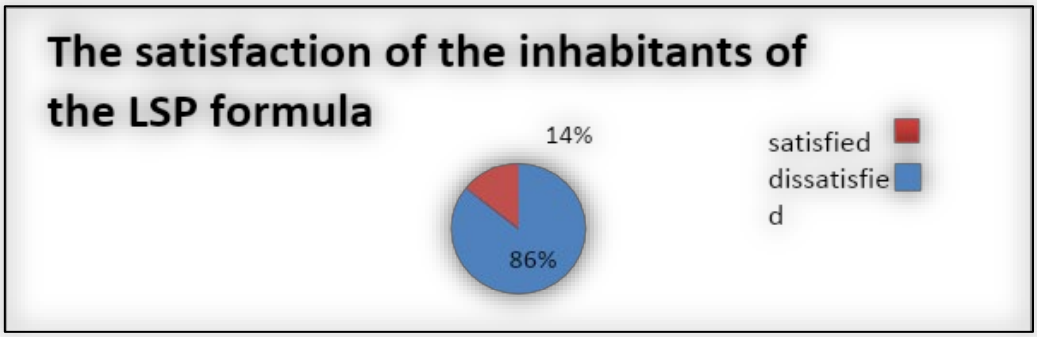
The area of the rooms

It is commonly believed that larger rooms provide greater comfort, but this is untrue for LSP rooms, which typically have square or rectangular dimensions and insufficient space for furniture and other amenities for occupants.

Duration and procedure for acquiring housing: from 1985 to 2004

The length of time it takes to acquire a home is one of the factors that determine its quality. Unfortunately, in Algeria, the LSP formulae take a long time; for the example study, this time period is from 1988 to 2003, or a total of 15 years.

They must ensure that users take ownership and are satisfied with what has been achieved (Cabanieu.et Al, 1999). Despite the previously mentioned problems of healthiness, the quality of the materials of the secondary buildings, and the poor quality of the materials used, more than 80% of the inhabitants are satisfied with their homes (see graph N°2), because the LSP formula is the best thing they had compared to what they had before.



Graph N° 02: The satisfaction of the inhabitants of the PSH formula
Source: Author 2023

PSH housing is first and foremost accommodation for low-income individuals; it is for seniors whose monthly salaries do not exceed 25,000 da. We observe that residents are not demanding, despite the fact that the LSP formula is entirely funded by the government. This does not preclude you from owning a high-quality home. It also seems, and secondly, that the quality of housing cannot be reduced to the definition of an ordinary "quality/price" ratio. Third, it is unacceptable to wait more than 15 years to peruse a house.

Recommendation

The analytical study and reflections undertaken, the conclusions reached by our work of investigation and observation now allow us to recommend:
Inside the apartment
* In the specifications it is necessary to revise the standards of bathrooms as well as WCs, the most changing rooms (fitted out) by the inhabitants, by the large number of modifications and improvements; addition of earthenware and some transformations.
* Add a floor drain (another look) to the bathroom in order to avoid flooding inside the home and make tasks easier for residents.
At the building level (the facade)
the facade begins to deteriorate, time and external aggression are often the causes and sometimes a renovation can no longer wait.
*The facade must be permanently protected against damage linked to rainwater, while leaving the surface breathable.
* Carry out facade renovation work.
*User practices have given the city a bad urban landscape through their behavior and intervention outside the building.
At the neighborhood level
*Ensure high-quality development of the urban environment.
At the level of the policy adopted
*it is recommended a regular and lasting evaluation after the occupancy of the housing by the users and to carry out an in-depth state study, by which, to know if the design of the LPA, LSP, LPL housing meets the needs of the inhabitants.
*Adapt housing to the different challenges of tomorrow in terms of uses and ecological transition.
*Allow the continued adaptation of housing over time through continuous and sustainable studies and monitoring.

V. Conclusion:

Man has always sought, first and foremost, to build his dwelling in any form of human settlement before considering other necessities. This demonstrates the vital importance of habitat for humans and the significant role it plays in the creation of cities or even in shaping their development. Given its size, scope, and pace, habitat exerts a dominant force in urban evolution, with other necessities becoming secondary outcomes of habitat and generally being subordinate due to evolution.

This research allowed us to analyze the different types of housing through two studies, a descriptive analytical study and another based on a survey and a questionnaire in direct contact with residents.

The first part
The analytical study which is based on the specifications and previous studies in the field of housing show us that:
Without mentioning the poor quality of the products used, we noticed the absence of the elements mentioned in the specifications but which we did not find during our work and visit to the three types of accommodation, these elements are as follows:

First of all, for the city of 145 LSP housing units in Massinissa, the missing elements are as follows:
*The lack of earthenware at LSP.
*The lack of storage cupboards under the vegetable garden in the LSP kitchen.
*The absence of a shower support at the LSP.

The second part

The quality of housing cannot be reduced to the measurement of a simple "quality/price" ratio, commencing with the costs, architectural, urban, as well as environmental quality, reliability, acquisition times, along with citizen participation in housing construction. Despite the fact that social housing is a solution to help people out of their crises, it does not preclude more extensive studies, large, multidimensional, complex, and more technical research.
The study of the questionnaire and the survey carried out on the inhabitants show us that:
*LSP users have normative thinking regarding housing, confined to the surface and interior space.
* Beyond the quality of housing, it is indeed the quality of the neighborhood that seems count the most. “We probably choose our building less than our neighbors” (Mazrag, 2015).
*We see that the residents of the LSP are not demanding even if the formula is financed entirely by the state, this does not prevent them from having a quality house.
*The biggest concern of LSP residents is the lack of space, and those who have not made modifications to their homes do not have the means to do so.
* Although the Algerian state has banned the installation of parabolic antennas in balconies and replacing them with collective reception equipment, we still notice them in the facades of buildings.
We can confirm our hypothesis that:
For the category of people who live in LSP, the quality of habitat has remained limited in traditional criteria, based on convenient indicators such as healthiness, stability, security, comfort, durability and flexibility as well as good appearance.

Referrals and References:

[1]. Samen, C.O, Les déterminants de la qualité de l'habitat à kinshasa. Approche par le modèle biprobit (probit bivarié). Université de Kinshasa, 2006.

[2]. Cercle promodul/ INEF4, Le confort dans l’habitat une necissité ou un lux, https://www.cercle-promodul.inef4.org/publication/le-confort-dans-lhabitat-necessite-ou-luxe/, consulted the 12/02/2024.

[3]. Elisa Léon, Pyramide de Moslow: Un outil efficace pour hiérchiser les besoins de vos clients, 2023, https://www.blogdumoderateur.com/pyramide-maslow-outil-hierarchiser-besoins-clients/, consulted the 10/03/2024.

[4]. Mériaudeau. Robert, Critical review of Dictionnaire de l’urbanisme et de l’aménagement, Revue de Geographie Alpine, 1999, pp 305.

[5]. General Commission for Sustainable Development, L’état du logement en 2010, France, December 2012. https://ingridnappi.com/wp-content/uploads/2013/03/etat-du-logement-en2010-references-dec2012.pdf, consulted the 15/03/2024.

[6]. Biau,Vironique. Lautier,Francois , Enjeux, Criteria and means of quality in housing operations, Hal open science, HAL Id: halshs-01714724, April 2004. p 106.

[7]. Marianne.C, Dussault.C, Guide d'utilisation des modèles de qualité de l'habitat, December 2013. P 22.

[8]. Roudil. Isabelle, Environment (domain), housing, overseas territory, environmental policy, CESE, March 2017.

[9]. Felzines, Cécile, Le logement de demain, pour une meilleure qualité de vie, Rapport du conseil économique et social. N° 26, France, 2005.

[10]. Mazrag. Hada, Le logement social collectif : Entre la conception et l’usage Cas de la ville de M’sila, Université Mouhamed Khider Biskra, 2015, p 227, 669.

[11]. Leclercq, F et Al. Vers un référentiel du logement de qualité. Rapport de la mission sur la qualité du logement,2021,//efaidnbmnnnibpcajpcglclefindmkaj/https://www.ecologie.gouv.fr/sites/default/files/Rapport%20Mission%20Logement%20210904.pdf, consulted the 15/03/2024

[12]. Levasseur, Marie-Eve et Al, Logement de qualité, OPUS n° 3, Institut national de santé publique Quebec.2020.

[13]. Pillemont. Jacques, Innovation Qualité Réglementation, PUCA, CERFISE, 2002, pp 20.

[14]. Barbarino, Natalia et Al, Guide pratique du logement de qualité. Communauté urbaine Grand Lyon, les scot de l’aire metropolitaire Lyonnaise, 2009, p 38.

[15]. 26 official journal of the Algerian republic N° 13, Wednesday 12 Jumada Ethania 1439 Corresponding to February 28, 2018

[16]. Juliette.S, Humidity: causes, solutions, treatment, hygrometry rate, 2023.

[17]. Cabanieu.Jacques and Al, La qualité des constructioons publiques, Mission Interministerielle pour la qualité des constructions publiques, 1999.