The Relationship between the Resident and Deterioration in Post-Occupied Collective Residential Neighborhoods the Case of the City of M'sila

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Abstarct

Social housing neighborhoods suffer from several urban and environmental problems, including deterioration and deformation within the urban environment. This is due to several factors, including residents 'negative impacts on the urban area and on the aesthetic image of the city, and urban interventions carried out outside the legal frameworks of social housing neighborhoods. This research paper aims to diagnose the resident's negative behavior within the social housing in M'sila by posing the questions of what are the causes and effects residents' interventions and what are the types that fit their needs and requirements. Results demonstrate that residents' illegal interventions on the urban environment have contributed to the deterioration of the social housing neighborhoods and further demonstrate that, in some cases, interventions were the result of poor urban planning and the residents' needs for comfort. This study uses the descriptive analytical approach to describe the deterioration at several levels in addition to the reciprocal relationship between the built framework and the social and urban phenomena.

Keywords: M'sila, Neighborhoods, Residents' Interventions, Social housing, Urban environment, urban phenomena.

INTRODUCTION

Social housing neighborhoods are a fertile field for conducting many urban and social studies. Some European countries, especially France, have seen the emergence of a lot of research concerning the responses and behaviors of the residents in the new urban environment (Henri1970,) but there were issues related to old neighborhoods, their rehabilitation, pollution and safety in general.

In Algeria, the adaptation of an analytical and critical approach to building new housing is reflected in large urbanization operations to avoid urban sprawl (Rahmane,2021), and there was a search for mechanisms to absorb the residence crisis because the state needed 75,000 residential units in cities and 65,000 units in rural areas in 1961. Therefore between 1962 and 1972, the allocated housing fund was approximately AD 10 billion and more than AD 71 billion between 1980and 1989. From 1999, the annual demand was about 300,000 residential units (Nouibat,2015), which led the authorities to build more social housing to meet the needs of people. The haste in construction, however, resulted in low quality residential units. The authorities attempted to make housing accessible without facilities or essential spaces. This meant a rapid construction without considering the quality of building and the urban, architectural reality.

This research seeks to evaluate the physical conditions of the built and the non-built part of the social housing neighborhoods and to understand the relationship between residents and their environment. It also describes urban initiatives and interventions carried out by local authorities in social housing neighborhoods and the degree to which these works have been accomplished and their results in practice.

LITERATURE REVIEW

The impact of housing on the quality of life has long been a topic of study in urban sociology. The condition of housing is an important factor in determining its quality. There were various studies related to social housing and quality of life. The first study is conducted by Vakalis (Vakalis,2019), assessed the quality of the internal environment of collective housing, and presented the results of survey that included the residents of 180 units in 7 social housings. The results showed that many residents reported dissatisfaction of the exterior design of the buildings, in terms of doors and windows, as 80 percent of them reported feeling uncomfortable in their collective dwellings .

A study published in the ICONARP International Journal of Architecture & Planning by researcher Mohammadhosse Azizibabani in the year 2019 under the title The Effects of Incremental Housing Approach on The Level of Residential Satisfaction Where the study came to examine the extent of housing satisfaction in affordable housing projects in Iran, the study used the descriptive analytical method in collecting data, as the study concluded that high housing satisfaction leads to a sense of belonging to the place and at a higher level of social sustainability.

The main objective of the research was to achieve strategies in the field of design, planning and construction to improve quality and increase The level of satisfaction in affordable housing projects.

To assess the level of housing satisfaction, some indicators were analyzed in the questionnaire submitted to each family. Respondents were asked to indicate their level of satisfaction with the indicators, where the percentage of satisfaction with the quality of construction was estimated at 45%, and the percentage of housing fulfillment of functional needs was estimated at 41%.

It was also from the results of the field study that the residents' maintenance of public and semi-public places is less than the maintenance of yards, which are similar to private ones, and it seems that they do not consider these spaces as a residential area for them(Azizibabani,2019).

Mezrag Hadda (2015) also conducted a research on the post-use evaluation method which aimed at evaluating the building based on residents' opinions and the extent of their satisfaction with the quality of housing. The author collected data from 5 neighborhoods of social housing located in M'sila. She concluded that residents made changes to their houses to meet their daily needs. Although the study is related to exploitation from a technical and social point of view, it did not touch on the legal aspect and legislative decrees that govern the operation of housing after exploitation, bearing in mind that the study is based on evaluation after use(Mezrag,2019).

The maintenance of housing also has an impact upon the Community. Because the legal, economic, and social spheres influencing maintenance can be regarded as part of community. In this vein, Manar Hosni (2009) touched on the life-span end of a large number of buildings in Egypt and pointed to the negligence of all types of maintenance. She considered maintenance as the third essential element after design and implementation for any residential facility. Through the field study and questionnaires, the author concluded that maintenance of residential facilities has not received sufficient attention from the research authorities at the national level despite deterioration, visual pollution, and the daily collapses. In addition, the building laws in force consider maintenance as a secondary article for they lack obligatory requirements and deterrent penalties. This can be a projection of maintenance of housing facilities in Algeria as it did not receive sufficient attention in previous programs due to the state's preoccupation with the quantitative production of housing to meet the needs of its citizens. In Algeria, the budget for urban improvement and maintenance projects was second to housing projects(Hosni,2009),.

METHODS

As for the methodology, the descriptive analytical approach was used in the study by inspecting a group of collective housing neighborhoods and limiting the negative behaviors of the habitants through random interventions on the buildings and non-constructed framework. A sample was selected in order to conduct a social investigation on the neighborhoods 400 Social Housing and 200 Social Housing, estimated at 15 percent of housing in order to know their practices and the extent of their satisfaction with their current neighborhoods. Data is collected from a questionnaire and observations of the changes in the field of the study. A cadastral map and a zoning map of 400 Social Housing and 200 Social Housing were obtained from the OPGI Office to analyze the interventions of the residents of the neighborhood. It was driven through, walked through, mapped and photographed to gain a better understanding of the spatial and architectural interventions made by the users.

URBAN ENVIRONMENT

The urban environment can be defined by the ecological processes, including centralization, decentralization, dispersion, and concentration (Baher,1999),. These ecological processes refer to the changes occurring in the distribution of the population and their social activities, so that the concentration and dispersion refer to the changes that occur in the population across the place as a result of migration from one region to another or the difference in the rates of natural increase. Concentration and dispersion are measured according to population density. Centralization and decentralization refer to the extent to which governmental economic projects and public jobs are concentrated inside or outside the urban

environment. This means that centralization is mainly related to industrial, commercial and administrative activities. It is measured by the extent of the control of the urban environment over these activities (Mazhour,1995),

A person realizes the surrounding urban environment visually. So, information passes through several cognitive stages : The person understands the surrounding environment; then, the mind stores the information and then recalls it to identify the event, interact with it and take the necessary decision, and thus actions and reactions (behavior) are formed through the mental image. There, any action depends on the environment and the personality of the individual (Dib,2001).

HOUSING JOBS AND REQUIREMENTS

Housing is known as the place where most of the time human beings spend; and to refresh their resources, stability is more important to them, hence the power to face life burdens. Primates, being unavoidable, used caves and built them to be more comfortable as they are today (Elizabeth,1978),. Due to human expectations and technological, economic, and social advances, the old view of housing as a mere shelter is no longer considered today. Such progress has led those involved in housing construction to rank them according to their degree of correspondence with modern man's demands.

In functional analysis, the housing function is defined as accommodating an individual or people of a specified level of quality. The house must fulfill the requirements of its residents through its rooms, areas, and equipment. The house, for example, plays the role of security and psychological and physical health which are the family's most critical aspirations. According to Wood (1978), adequate houses one that provides the family with total stability and comfort that meets all daily necessity. She thinks that it is better if the house contains additional areas to practice hobbies. For her, the most important functions of the housing are: preserving everything that is private and confidential, privacy, forming family, social and environmental relationships, and aesthetic areas and internal spaces, balanced distribution of household physical equipment, stability and continuity.

After addressing the issue of family behavior inside the housing, Henry and Chambard identified the resident's needs as follows:

- The need to own a space
- The need for psychological and physical comfort
- The need for privacy, that is, the private life of each family member.
- The need to establish relationships outside the perimeter of the housing, especially neighborhood relations (Heima,2001).

DETERIORATION OF URBAN SPACE

Urban space is a broad concept based on the understanding of space as a location of people and concentration of their social and household needs, so that the transformation of space as the place for anyone into the space for every person happens at the time of person's impact on the design of urban space(Mykhailo,2020).

It is that gradual change towards the worst that partially or totally occurs in the urban space which directly affects the quality of life. This deterioration results from human actions(mismanagement, poor planning, absence of various arrangements, Lack of awareness, etc.) and other natural ones Deterioration affects many aspect including urban environment and buildings (Mechari,2000).

The deterioration of the urban environment

There are two reasons for urban deterioration:

1. Obsolescence and lack of maintenance

2. Inhabitant's intervention in the urban environment whether for the built and non-built spaces.

VISUAL POLLUTION AND HOUSEHOLD WASTE

Visual pollution is an aesthetic problem which results in an unpleasant view to one's eyes. In urbanism, visual pollution disturbs the visual areas of people by creating harmful changes in the urban environment (Zinelabideen,1992).

Researchers have defined pollution as "The imbalance that occurs in the visual performance of the physical environment

with all its natural and built components which reduces the aesthetic sense of it"

The features of the visual pollution can be determined in the following points:

- in homogeneity of form, proportions, color .
- All that can reduce cleanliness, safety.
- The presence of an element contrary .
- All that adversely impact on the public taste(Aliet,2020).

Household waste contributes a significantly to the urban and environmental degradation in the huge quantities of waste thrown away outside the buildings. The waste can be solid or organic but it results in contamination, air pollution and spread of diseases. Other types of waste are the result of various household activities and industrial, craft and other activities (Abdelhamid,1998).

Household waste is a serious problem, especially in places where the population is concentrated. The increase in population continues, and urban distribution leads to the creation of new patterns of relationships and consumer demand, which results in an increase in the volume of household waste in the urban environment (Baher,1999) and it is worth noting that household waste is closely related to the standard of living and the cultural level of the population. As it was estimated in a report, the average waste or solid waste that a person leaves in America "is more than one ton per year" (Mohammed,2010). In Algeria, the average per capita leaves a daily equivalent of 0.5 kilograms of household waste, and in major cities such as Algiers: Each person generates 1.2 kg of waste per day (ministry,2000).

INTRODUCING THE FIELD OF STUDY

M'sila is a city in the North-Central part of Algeria. It is seated between 35°66' and 36°75' North latitude and between 4°47' and 4°57' East longitude(Benkheled,2022).which represents a crossroad of the national road N° 40 and the national road N° 45, and Elksob valley is one of the reasons that caused M'sila to flourish throughout time (fig. 1). The area under study is approximately 233 km², roughly 147946 inhabitants live there according to 2018 estimate, that is, 635inhabitants/km².

Figure 1. The location of M'sila province in Algeria

400 Social Housing

The project was designed by the Bureau of Research and Studies of M'sila (BERM). It was implemented in 2007 and was one of the modern housing programs that would have provided a fair offer for social housing seekers it contains 35 buildings distributed in four styles. Each building has four floors including the ground floor (Gr+3). The apartments are of two types F2 and F3 with the areas of 60 m² and 74.5 m² respectively. The ownership of the residences belongs to the Office of Real Estate Promotion and Management. Scheme 1 represents the borders of the 400 social housing.
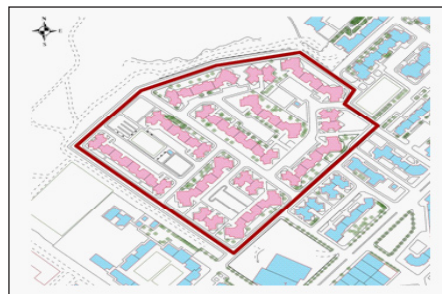
Source : The Authors using Arcgis
Scheme 1. Scheme of preparing the neighbourhood of 400 social housing

One of the interventions made on this social housing was opening doors on the ground floors to use the ground for gardening and to allow much light and air current to flow in apartments, as illustrated in figure 2.

Source: The Authors
Figure 2. Opening doors on the ground floors of buildings

- Another intervention made by residents contributed to the distortion of the general outlook of the housing is the placement of water tanks and antennas outside the buildings and on the top of them, as shown in Figure 3.


Source: The Authors
Figure 3. Placement of water tanks and antennas

200 Social Housing

This rented social housing is located in the north of the Land Occupancy Plan No. 05 and links M'sila and the district of *HamamDalaa (Algerian state)* in the direction of the expansion of the city. The frame it is built from. It is a social housing that occupies an area of 2879 m² which represents 30.46 percent of the total area of the neighborhood, and the non-built frame occupies an area of 6571 m², representing 69.54 percent . The non-built area includes green spaces, playgrounds, roads, corridors and parking lots. Scheme 2 represents the borders of the 200 social housing.
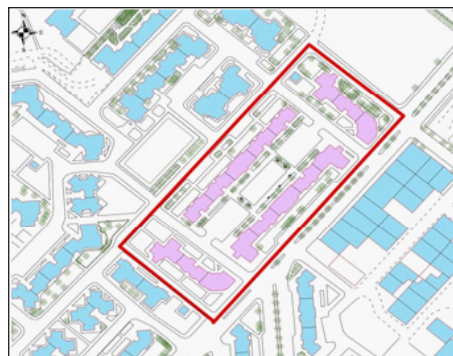
Scheme 2. Scheme of preparing th neighbourhood of 200 social housing

Figure 4 represents another type of intervention. Some residents take possession of the green spaces near the ground floor and fence them to be their private properties

Source: The Authors

Figure 4. Green spaces became private property

The last phenomenon can be seen in this social housing is changing the playground into a parking lot. This limits the spaces allocated to kids to play in and makes the scene horrible, as shown in figure 5.

Source: The Authors

Figure 5. Shifting parking lot to playground

The Built Environment and Human Behavior

The built environment is all the surroundings that are built by humans like buildings, and infrastructure. It does not only affect a person's behavior, but rather affects his growth, personality building, physical, mental and psychological health. It also affects a person's attitudes, tendencies, ideas, opinions and beliefs, and personality traits. Being surrounded by it, built environment either makes us feel comfortable, happy, relaxed and satisfied or feel upset, tired and exhausted. As we are affected by the built environment, we also affect it positively or negatively.

In Transformation of the Site, Habra ken (1983) believes that it is difficult to separate behavior and form. They are intertwined and inseparable. He adds that if the inhabitant enjoys freedom of disposition at home, it would be the catalyst to change his environment and to fulfill his desires.

Sometimes, buildings reflect monotony and repetition that drives boredom and depression these feelings lead to behavioral deviations within society. This supports the notion that the building is influenced by the philosophy of its designer and then it influences human relations either positively or negatively. Thus, the social aspect of the building should be considered because it is a form of social interaction between individual and the environment around him (dib,2001).

Reasons for the resident's negative behavior towards the modern urban environment

- The deficiency of the urban legislative system in judicial follow-up for violators
- Imbalance in the performance of social roles and evading responsibility especially among managers.
- Environmental illiteracy and the absence of city culture among the citizens.
- The absence of the relationship between buildings and society as the architect does not consider various needs of the society in the framework of common values. This pushes us to ask the following question:
  Which values should be taken into account: Those of the architect, those of the decision makers, or those of buildings residents?

1) Residents' Behaviors in a Set of Social Housings in M'sila

Changes in the building facade

Site visits to the neighborhood have shown that the improvements made by residents are largely visible inAdding steel frames for windows and balconis

- Wide and messy distribution of satellite dishes
- Building part of the balcony or completely closing it
- Putting a curtain inside the apartment which conceals vision
- Construction of doors on the ground floors of buildings

- Switch to a window on the balcony.

Field of Social Investigation

Through the social investigation that affected 15percent of housing units in the neighborhoods of 200 and 400, the results were as follows:

- Via questionnaires, we made generalization about the residents' satisfaction with the quality of the housing they live in, we found that 42percent of them rate the social housing as of medium quality, while 08 percent consider it good, but 50 percent think the housing is of poor quality.

- 76.45percent think that the size of the apartments does not fit the size of the family, and this is what forces the residents to make changes in order to expand it.

Through the urban analysis, the neighborhood contains 142 apartments type f2 with an area of 57 m², and this type is one of the most vulnerable to intervention because their size does not fully meet the requirements of the residents, especially with the natural growth of the family, as mentioned in Executive Decree No. 91/175 of 05/28/1991 which contains the general rules for urban planning, urbanization and building and in Article 34 which defines the minimum area for a main room with 10 m²and a kitchen area not exceeding 06 m². The area of the main room does not really fit the family of large size.

- 69.80percent of the studied sample made changes to their apartments which contribute to the deterioration and distortion of the general appearance of the facades.

- The interventions made by the residents we realsoin the exploitation of the areas adjacent to the ground floor by planting trees.

- 200 and 400social housing neighborhoods suffers from the lack of hygiene by and 61.45 percent consider the first reason for the spread of waste is the inhabitant. 94.20 percent say that the neighborhood does not have green spaces and urban furnishing.

Standards of Welfare in Social Housing

The decision of December 31, 2012, which involves the acceptance of the terms of reference which determines the size and standards of the surface and welfare applied to social housing, states some criteria in constructing social housing as follows:

Article 06: Architecture must provide the richness and variety that meet the requirements of beneficiaries in terms of beauty and comfort and make the neighborhood a pleasant location to live.

Article 08: Social housing must interpret the concept of thorough architecture by setting architectural elements that would exclude all changes in the facades by residents.

Article 09: Building space must be adapted as much as possible to the local lifestyle and meet the technical regulations for the construction of the applied requirements.

Article 26: Special treatment must be ensured for the entire construction rules so that we avoid its deterioration and dirtiness.

All of these Articles in the decision were written to meet resident requirements of the residents at first, and to fight against negative phenomena resulting from the intervention of the resident on the urban surroundings.

Misuse of Shared Areas in Social Housing

In 200 and 400 housing neighborhoods, we noticed the misuse of shared areas like putting water tanks put on the

rooftops or inside the buildings and under staircases. Article 57 states the standards of the shared areas and welfare applied to social housing. It obliges contractors to install water tanks of 1000 liters for low and medium buildings, and two water tanks of 1000 liters for high buildings. In practice, contractors did not install water tanks and the scarcity of water supply pushed residents to install many water containers in different places which affected the aesthetic image of the neighborhood.

The laws which regulate shared areas of social housing guarantee the resident the right to dwell or host part of his apartment to one of his relatives because he is free to use his property as he wishes. He is also allowed to do all what is necessary to make changes or adjustments within the frame of law. However, there are restrictions stated in Decree No. 83/666 regarding the special neighborliness that connects owners to one another:

- The resident must not violate the rights of the partners of the shared real estate
- The resident must not modify the facade of the building
- The resident must not do anything exposes the building to danger
- Partners in housing must maintain quiet atmosphere in the building.

As mentioned in the Executive Decree No. 14/99 of March 04, 2014 which defines the shared property system and in completion to the Decree 83/666 which states the obligation to repair the doors of the entrances of apartments, the windows and window locks and curtains, barriers of the balconies and the windows. Therefore, residents must keep them in good condition; however, in order to keep the appearance of the building and its consistency, the amendments related to painting the doors of the entrances of apartments should be the subject of a complete process decided by the partners of the association of ownership.

The study demonstrates the resident interventions on social housing, and these behaviors are often outside the legal and management frameworks adopted by the responsible ministry.

- The interventions of residents suggest that they do not accept to live in this type of housing.
- There are many reasons behind the negative behaviors of the resident, including planning and management reasons.
- The existence of a legal gap in controlling social housing and the non-application of deterrent laws that prevent damage to the built or non-built framework.
- The absence of an audiovisual network leads to the use of antennas that distort the aesthetic image of all social neighborhoods.
- The scarcity of water and misdistribution leads to random use of tanks, whether on the roofs or outside the buildings, as well as under the staircase cage.
- The majority of social housing residents are forced to use housing spaces for multiple functions other than their original functions, for example reception rooms are used as bedrooms or for playgrounds either because the family is large or the housing is incommodious.
- Due to the fact that the state is the mere provider of social housing, the area of the housing is limited and the building materials are often medium and sometimes poor. Therefore, residents of social housing resort to making changes to their housing due to the lack of housing on the one hand and the unsuitability of building materials used on the other hand.
- External spaces complementary to housing perform roles other than the roles assigned to them. For example, the green spaces in the neighborhood of 200 housing are used as car parks while the car parks in the neighborhoods of 400 housing are used as spaces for play.
- The design of neighborhoods in the form of closed islands breaks the social ties between residents of social housing, as they use the spaces close to them and adjacent to apartments.
- The Decree 666/83 (35) which defines the system for managing social housing neighborhoods, as well as Executive Decree No. 14/99 of March 04, 2014 (36) which defines the shared ownership system must be reviewed, especially with regard shared parts of social housing.

DISCUSSION

Through the study provided by Vakalis et al. (2019) Under the title Indoor environmental quality perceptions of social housing residents Which showed that 80 percent of the population feel uncomfortable in their collective housing, which

is consistent with the social investigation that we conducted at the level of 200 and 400 housing, where 76.45 percent see that the housing is uncomfortable, which leads to interventions in order to provide comfort outside legal frameworks that produce a distortion of general appearance of social housing.

Also, the study of MezragHadda (2015) showed that the design of collective housing is the reason for the resident's disintegration with his house, taking into consideration the technical, functional, social, aesthetic, and environmental aspects. This creates a mismatch between the design, the social and spatial needs, and the resident's culture. This is the point of intersection between our research and this study, where we dealt with the resident's interventions on the housing and its relationship to the deterioration of the urban environment. We noticed that residents made changes to their houses to meet their daily needs. Although the study linked to exploitation from a technical and social point of view, it did not elaborate on the legal aspect and the legislative decrees that control the operation of housing after exploitation, taking into account that the study is based on evaluation after occupancy.

CONCLUSION

The issue of deterioration of social housing neighborhoods in Algerian cities is very complex. This is based on the planning, design, and implementation process, which are often dominated by the socio-economic vision of the residents and the extent of trying to meet their requirements. In our case study, the deterioration of social housing in M'sila is due to planning and design which are often driven by economic vision rather than a social side and the requirements of the residents. However, the Ministry of Housing is trying to amend the situation by follow-up works to conform to the technical standards of construction like the quality of used materials and construction. The lack of professional entrepreneurs and skilled labor are also one of the concerns of local authorities. Some specialists suggest that workers must be trained well and contracting companies should provide the better work conditions for workers to build better housing. The residents are also responsible for the preservation or the deterioration of the urban environment. Unfortunately, some residents care only about indoors and deal carelessly withoutdoors. For this, the state must intervene to prevent all what deteriorates or damages the urban areas and it should make sure the terms of reference are met. These regulations are meant for preserving and repairing the residential area regularly, and to avoid all the forms of deformation and deterioration that social housing neighborhoods are facing. The analysis we conducted reveals that planning and design are the causes of problem in the first stage. In the second stage we find materials and construction. In the third stage, we analyzed residents' interventions and misuse of social housing.

RECOMMANDATIONS

Knowing the real requirements of the population in their use of their physical field and trying to direct future planning towards combating all negative manifestations resulting from the changes made worse on the built frame or the frame not built by the user.

Knowing the effective role that the resident can play as the first consumer of urban space through his preservation of the urban environment, as it was made clear through the research that it can negatively affect the aesthetic of the urban appearance through the random changes that it makes (refer to the questionnaire) and from it, it is necessary From developing programs in the primary and basic stages of education that work on the legal explanation of the system of joint property ownership within the framework of the program set by the Ministry related to civic education

Proposing incentive measures and annual prizes for collective residential neighborhoods with regard to preserving the built and inbuilt framework, preserving the environment, and using all media, including television, to sensitize the joint owners, and this by means of media flashes, as well as organizing meetings with experts in the urban field, legal experts, and sociologists as well as the community Civil Society to explain the system of joint ownership and sensitize owners of their rights and duties.

Reconsidering the laws related to the management of the common real estate parts and enacting texts that ensure that no part of the urban fabric in the city is completely affected by the user.

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