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Sustainable Renewal of an Empty Block to Public Urban Space: Gentrification of the Railway Workers' Housing Estate and its Garden's Urban Interface, Sétif, Algeria

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Abstract: The contribution questions the prospective role of the recently rehabilitated garden of the railway workers' housing district, a.k.a. "Cité des Cheminots", in Sétif, Algeria, through its immediate environment and the multiple vocations of the district. In its current state, it highlights the imbalances of the Algerian urban fabric by reducing the urban space to the needs of easements, denoting its articulatory role as resulting from the urban planning of the traditional cities. From past to present, a multiscalar reading will deduce the consideration of the garden as an interface with its surroundings. Around a historical, sensitive, and urban renewal approach, the aim is to identify the potentiality of garden offers as an urban interface in the dynamics that led to the formation of the first railway workers' housing estate and its evolution towards the historic center of Sétif town and the spontaneous reshaping of the district in late 1990. This current observation will allow the garden of the "Cité des Cheminots" to be placed in a sustainable and well-thought-out urban renewal process as an urban space that articulates the scales of the city and the district, as well as the functional scales of the city center and the residential space.

Keywords: urban space, garden city, residential garden, sustainable urban renewal

1. Introduction

The railway workers' housing district, "Cité des Cheminots", is situated in the hypercenter urban crown of Sétif. The district is developed to the east, along with the "Avenue du 1er Novembre", which was the main axis of the colonial city of Sétif and faces the railway station of Sétif. The district is organized orthogonally by streets defining rectangular blocks, initially of two-story houses with gardens, which have been demolished for rebuilding investment-promotional housing and new individual houses. A central block is dedicated as a garden which proves its attractiveness as a social and landscaping opportunity, from the first rehabilitation in late 2000 to its current one in 2018. In this instance, the district is facing multiple changes in its urban form due to the multiple operations, led individually, of demolishing and rebuilding in place of the old houses. The heterogeneous character resulting from this spontaneous urban renewal proves a lack of vision in its orientation.

The Algerian city and its future may seem uncertain in terms of the relationship between its urban components,

which is often complex to understand. In Algeria, the relationship between built space and urban space [1], a true symbiosis of the classical European city, is misunderstood. This is partly because the European city is still present, and it is also occasionally conflicting due to the cultural heritage of vernacular villages. Algerian cities are questioning the role of urban space in shaping the future of the city. This is even more critical at a time when Algerian cities are spreading out in extremely dense neighborhoods where public space is being reduced to a need for servitude.

This also concerns the city's hypercenter through an increased and predatory densification, considering only the land's profitability and neglecting the public space as the only perennial element of the initial developments, and producing spatial gentrification. This emblematic district of Sétif was the first urban operation outside the limits of the colonial city of Sétif, investing the actual suburbs of the city with both Bel-Air and Beau Marché neighborhoods in the second quarter of the 20th century. These three housing estates are integrated into a heterogeneous network that connects them to the city center and makes them pericentral neighborhoods with high land values. They are therefore the preferred target of speculators and developers whose objectives are limited to the area built and the construction cost.

The community has defended the garden of the railway workers' housing estate through its rehabilitation and social investment despite the threat of land speculation. It is now a central space in the face of new densification operations on private plots. This garden sets out the two notions of investment in urban space by citizens and separation of the built character from the public character of the cities [2]. As an open space, it offers singular potential and centrality in terms of location and landscape. Also, it seems to benefit from the land speculation that has led to the gentrification of the neighborhood and its redevelopment by the surrounding citizens, providing it with a second life both spatially and functionally (see Figure 1).





Figure 1. Satellite maps of the railway workers' housing estate in the years (a) 2004 and (b) 2022 illustrate the change in the morphological character of the estate both in the garden and in its built environment

The purpose of this contribution is to introduce the articulatory role of the garden of the railway workers' housing district "Cité des Cheminots" between the city and the neighborhood, in the strategic urban renewal operation that will affect the entire center of the city of Sétif through the introduction of urban opportunities such as the introduction of new modes of mobility. Criticism of spontaneous urban renewal since the advent of urban speculation in the 1990s is based on the translation of the historical formation and transformation of existing buildings and urban space to set up the actual gardening vocation and the future articulation of the role of the railway workers' housing district [3].

2. Methodology

The research seeks to understand the role of the railway estate's garden in the renewal of the built environment. The value of the garden, in addition to its urbanistic aspect, lies in its social quality and its unique use on a residential scale.

First of all, this contribution aims to prove a possible reconciliation between built spaces belonging to individuals and urban space considered an immutable common good. Because of its qualitative aspects, the garden is the object of this prospective study, which aims to think of the city around the interface between built space and urban space to optimize their quality and added value.

The present study also wants to identify the assets and potentialities of the garden of the Railway Workers' Housing Estate "Cité des Cheminots" by borrowing specific questions, to which relative methods added to a multiscalar reading will answer the expected objectives:

- a. The role of the garden in the urban renewal of the railway workers' housing estate, from its genesis to the present day (see Figure 2): Using a historical approach aiming at establishing precise temporalities, this part will deal with the formation of the railway workers' housing estate through written documents and graphic sources to find the original typological character of the place. A retrospective of the periods following the formation of the district will attempt to identify the changes that took place in the city and highlight the role of the garden of the railway workers' housing estate in this dynamic. Section 3.1 is dedicated to revealing the results of this part of the experimentation.
- b. The existing built environment, its qualities, and constraints in relation to the garden's urban space: A reading of the current temporality will allow us to identify the character of the garden of the railway workers' housing estate as an urban space and its relation to the built elements that are part of it. The visual approach will identify visual elements, varieties of heights, and views specific to cities, blocks, and streets in order to detect the architectural and urbanistic coherences around the garden. The functional approach will identify the built surface area of the buildings, their functions, and their sizes in order to explain the different forms of reappropriation of the original urban fabric in the current forms of urban renewal. The built character will be confronted with the elementary rules of urbanism and will reconsider the legislative role in urban regulation. Section 3.2 demonstrates through words and schemes the result of this question, just as Section 3.3 is dedicated to the quality evaluation of the garden itself.
- c. The role and limits of this urban garden space in the formation of current and future urban renewal in the district: After having synthesized the two above-mentioned parts, a prospective reading of urban scale changes will introduce the role of the garden in the dynamics that the district will experience. Around a reading review of theses concerning the first future and urban logic of the city of Sétif, then on works specific to urban renewal at the international level [4], and in particular the socio-economic fields, a synthesis work at the urban scale as well as at the scale of the district will set out the orientations of urban compositions with regard to the public and semi-public residential urbanity, governed according to the position of the blocks. The garden of this neighborhood, once defined, will act as a regulator of its urban hierarchies. The discussion will synthesize the precedent results and present a prospective reading of the railway workers' housing estate, introducing the garden's role in the regulation of the urban character of the neighborhood.







Figure 2. Assembled photographs showing the transition from a housing estate to another housing estate and then to blocks of flats

This study is concluded with a synthesis that reviews the stakes of such an operation and the necessity to take into account different aspects, historical, urban, and socio-economic, around the garden of the railway workers' housing estate. This study will also address the potentiality of the future relationship the garden will maintain with its

neighborhood as a multidisciplinary interface.

3. Results

3.1 The railway workers' housing estate, the genesis of suburb programs in the colonial city and indigenous integration

The city of Sétif was established around a colonial-type core, usually taken from the plan of the Marshal of Vauban, Demi Neuf-Brisach [5]. This plan was based on an orthogonal organization of closed blocks and a network of streets, created for the occasion, as established around existing axes connecting several cities. Thus, the road to Constantine, which begins at the Bab Azzoun gate in Algiers, passes through several colonial nuclei formed during the successive conquests of the interior of the country, such as Draa El Mizan in Tizi Ouzou, Bouira, El Yachir, Bordj Bouariridj, Ain Azel, and in this case, Sétif. This road converted into a street of Constantine serves as a Decomanus-maximus between the limits of the city walls.

This state of the fortified city persisted until the beginning of the 20th century, before expanding further through the creation of new extramural neighborhoods surrounding the fortified city which was considered a town by its suburbs. The creation of a railroad in 1925 passing through Sétif favored this momentum and led to the construction of three quarters, which have become emblematic neighborhoods today in popular memory [6]. This "urbanization in the oil spot" has been based on a French legislative arsenal intended for the promotion of workers' housing in town and rural areas. Since the beginning of the 20th century (see Figure 3), the Ribot law of 1908 [7], completed by the Cornudet law of 1919 [8] and applied in Algeria in 1925, as well as the Loucheur law of 1928 [9], introduced a series of measures on this subject, summarized as follows:

- a) Financial and budgetary aid from the state to small landowners wishing to build and own their homes (excluding Habitations Bon Marché rental housing)
- b) The advent of Habitations Bon Marché housing in metropolitan France as well as in its departments also encouraged small property and renovation operations, sanitation, and construction of the so-called rural habitat

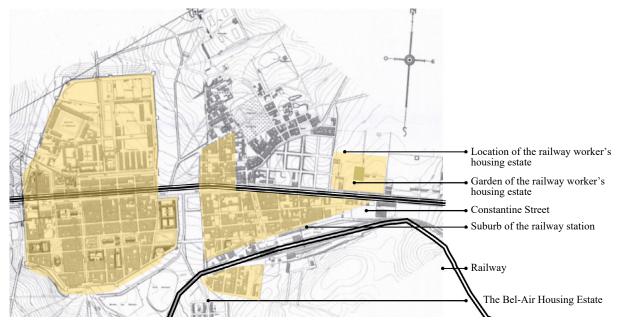


Figure 3. Historical map of the city of Sétif in 1930, illustrating the urban development that contributed to the construction of the railway workers' city, which is not yet built [10]

This funding is a public grant to the various project owners wishing to invest in the rehousing of populations of workers, as is the case in Sétif. Pilot housing operations will be launched for populations considered disadvantaged or even marginal [11] (see Figure 4).

a) The Bel-Air Indigenous Housing Estate (currently Tlidjen Abderahmane Housing Estate) (1926)
Project owner: La Société Coopérative des Habitations à Bon Marché - Le Patrimoine Sétifien
Presided by: Charles Levy

b) The Veterans' (Les anciens combattants) Housing Estate (1932 to 1938)
Project owner: La Société Coopérative de Construction "Les Anciens Combattants"
Architect: P. Bourdeix, Wagner

c) The Railway Workers' Housing Estate (currently Maiza Housing Estate) (1930 to 1931)

Project owner: La Société Coopérative des Chemins de Fer

Architect: Berardi



Figure 4. Photographs showing three original suburban housing estates in the city of Sétif, including (a) Bel-Air Indigenous, (b) Veterans' (Les anciens combattants), and (c) Railway Workers' [12-14]

The genesis of the railway workers' housing estate of Sétif is thus a resumption of the housing estates, based on the garden city model, built in France before the First World War and renewed afterwards. It is contemporary to the railway workers' housing estates of "Lille la Délivrance" in the Lille region in the north of France or to the railway workers' housing estate of Mitry-Mory (125 dwellings, Architect: Urbain Cassan, 1925 to 1933), both commissioned by the "Compagnie des chemins de fer du Nord", directed by Raoul Dautry, an engineer by profession. The historical reading of the "Lille la Délivrance" housing estate summarizes a continuity of uses in the establishment and models of housing estates for railway workers [15]:

- a) The need to house the railway maintenance workers in low-cost housing estates, both in terms of land development and construction work, through the development of rational and streamlined housing estates both in terms of costs and amenities.
- b) The advent of a railway line and the need to build a railway station. The law of 23 April 1919 on the eight-hour working day led to the recruitment of more workers and therefore to the need for attractiveness through "productive investment".
- c) "Productive investment" is based on the control of workers in order to counter any demonstration and, above all, to produce a feeling of belonging to a corporation providing all the modern conveniences both in terms of housing and services such as schools and shops, with the aim of officially claiming the "social" character of such capitalist actions.
- d) The choice of land for the railway workers' housing estates was made outside urban centers and working-class neighborhoods. This was done in order to avoid any mobilization of socialist dynamics or any other political contest threatening the durability of the town.

This context led Raoul Dautry to imagine a model of social housing complexes organized around the very recent concept of garden cities built by Ebenezer Howard and their relative applications. The Dautry doctrine was thus theorized through the creation of a railway company that would benefit from the advantages of the garden city.

The railway workers' housing estate in Sétif is based on this garden city model, but with a smaller program and

arranged in a grid system of streets forming rectangular blocks of approximately 45 m by 60 m, divided into eight plots of land composed of houses with a side garden and arranged in terraces (see Figure 5). The Provençal-style (Provincial Style) houses are symmetrically based on a 6 m by 8 m floor plan with a common four-sided roof. The urban plan also divides the houses into blocks in order to provide facilities, including schools, which date back to the 1950s, following the example of Marcel Lathuillière's school for boys.

In particular, a 45 m by 60 m central block surrounded by streets and blocks of built houses presents an open space. Initially conceived as a garden, it was occupied since the Algerian revolution of the 1950s by French police security barracks and kept at independence until it was taken over during the black decade of the 1990s. It was only recently that an operation to redevelop the garden was undertaken, giving it a new physical and social appropriation by the surrounding residents.

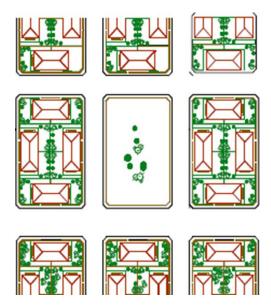


Figure 5. Plan of the initial railway workers' housing estate and its garden [16]

3.2 The railway workers' housing estate: A place name, a memory and vestiges. A wanted or sudden urban renewal?

The railway workers' housing estate is today integrated into the network of districts in the city of Sétif, which, after the destruction of the walls of the fortified city, occupied the space between the three suburban housing estates and the town by active urbanization of housing fever [17], which are the results of the Cornudet and Loucheur laws in the setting up of Habitations Bon Marché programs.

3.2.1 Shift of the railway workers' housing estate from the social logic of the regalian state's access to housing to a rapacious market economy

Only in the last 30 years has a process of reinvesting existing urban territory taken shape, owing to the post-1986 economic and political crises, leading to liberalization in the first instance, propelled by the transition from a socialist to a market economy system that has given land market value. This coincides with the aging of the old French districts, highlighted by the 48 m² single-room accommodation quality of living space, which was advocated at the time of their construction but no longer meets the current standard. This is also leading to a change in the populations occupying the neighborhoods, who have grown older and whose children have left the family home or even died, leaving a multitude of heirs whose 48 m² single-room accommodation is not enough anymore. Thus, the booming property development industry is taking advantage of the land and economic potential to buy up old buildings in order to rebuild larger and

more numerous housing complexes for middle- and even upper-class populations wishing to occupy the city center. A real economic system based on land potential, construction, and the exodus to Sétif is leading to the gentrification of the railway workers' housing estate district of Sétif [18]. This sparse urban mutation dynamic is spontaneous because it does not integrate the prospects of urban planning instruments, which can be considered a tool for regulating uncontrolled urbanization resulting from the state's "laissez-faire" attitude and the increased greed of the private sector.

However, the spontaneity of the act of urban renewal is a concept accepted by European specialist research [19], along with controlled and managed urban renewal. In terms of the theory of urban cycles [20], the railway workers' housing estate of Sétif is thus presented as a re-urbanization operation in which land speculation has reinvested the urban center in a relative manner through a change in the status of the built environment and the permanence of the urban layout and its initial dimensions. The garden of the railway workers' housing estate was also the object of such covetous speculation, but having been the property of "La Société Coopérative des Chemins de Fer de Sétif", it is still considered private land belonging to the co-ownership and therefore non-transferable.

It is interesting to qualify the adequacy of the concept of "place or people" in the reinvestment of the garden of the railway workers' housing estate. Indeed, the concept is related to the criteria for the qualification of urban renewal through the use of criteria related to the place and its configuration, as well as to the criteria related to the inhabitants through the establishment of socio-economic criteria for its inhabitants. Although it is not possible in this contribution to record the number of inhabitants and their incomes due to the absence of statistical tools, it is nevertheless important to point out that the land's potential could only have been realized through the gentrification of its surroundings. The garden of the railway workers' housing estate is in line with Downs' [21] definition of the "place-based initiatives strategy" by being aimed at the revitalization and requalification of the infrastructure, the improvement of the housing through rehabilitation or renovation, and the attractiveness of the economic activities. Moreover, the railway workers' housing estate also coincides with the "place-based initiatives strategy", which, by means of property speculation, has led to the mobility of a relatively modest population occupying a central space in the city towards more economically convenient spaces.

3.2.2 The garden city has turned into a classical city without ordering

Nevertheless, the memory of the place and the spatial configuration offer at least a prospect of 45 m by 60 m vis-à-vis the development of either promotional housing programs or individual villas with enhanced standing. Thus, an urban space of this size has functional potential because of its position and its centrality on the scale of the district, its social dimension, the consumer potential that such a place offers, and the value of the land and the rights to build that are more important than the plots on the streets.

The railway workers' housing estate, initially a dormitory town for today's critics, was an allotment of individual houses, relatively all of which were demolished and replaced by taller and denser buildings. Under the same speculative aegis, this is reminiscent of the development plans of cities such as Algiers, Marseille, and, on a larger scale, Paris, where land was granted to property developers who, according to their finances, proposed buildings of varying standing. The difference with the model of the railway workers' housing estate lies in the regulation of the urban and architectural composition, which in the example cited retained formal and architectural guidelines in a set of specifications relating to the districts.

The legislative framework in force [22, 23] is not unrelated to this failure. The only authority regulating building rights is the town planning department of the municipality, reducing its verification criteria to the sole indicators of the floor space coefficient and the prospect of public space, as predefined and relatively applied in the town planning certificates, which, today, are the real missing link in the regulation between the act of planning and the act of building (see Figure 6). Figure 6(a) shows a demolished house plot with the rear façade of the building exceeding the height and the regulation of the openings with regard to the prospect rule vis-à-vis the neighborhood. Figure 6(b) shows an original single-family house in the railway workers' housing estate. Its neighborhood exceeds the framework of its construction, and the vocations of the ground are not respected.

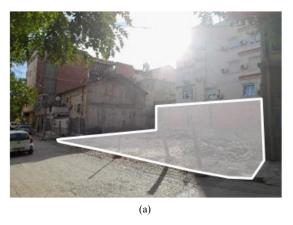




Figure 6. Photographs showing the exceedance of planning and building regulations for new buildings in the railway estate

This observation seems obvious on the northern wall of the railway workers' garden (see Figure 7). This one, in fact, consists of two initial plots with two houses that are 16 m by 6 m in length and have side gardens at the corners of the regular blocks. This plot is now broken down and recomposed into a formation covering three-quarters of the length of the plot for a five-story apartment building occupying the entirety of the two original houses as well as the eastern side garden. Thus, the floor space coefficient is flouted, as are the original vocations of the land. The western side domestic garden, which is one-quarter of the length of the northern garden wall, has been occupied by a three-story detached house, which is in contrast to the formal and functional character of the lateral property development. This is as much a failure to respect the original vocations as it is a testimony to the individual and heterogeneous character of the urban renewal process carried out.



Figure 7. Photographs assembled to show the entire northern façade consisting of three-quarters of a block of flats and one-quarter of a detached house

A more mixed observation can be made on the east-west and south walls (see Figure 8), as the wall is broken down into four heterogeneous parts of built character ranging from individual dwellings to collective promotional housing. They are denoted by the characters and floor areas, as the first category endeavors to maintain a garden at the front of

the plot, while the second completely occupies the plot on five stories.

Thus, there is a distinction to be made between this dynamic, which seems to go first centrally and then towards the edges of the city, where one can still perceive the initial houses and the very recently undertaken building sites.





Figure 8. Photographs illustrating the heterogeneity of building types on the east and west facades

3.2.3 The garden of the railway workers' housing estate: An asset and a potential for urban renewal in the past and in the future

On the spot, one notices the will of the project owners to propose accomplished constructions whose quality is neat, giving a standing to the garden walls as an added value compared to the other street blocks of the city. This observation contrasts with the state of other peripheral districts of Algerian cities, which are almost entirely unfinished and repulsive in appearance. The garden space and its potential are thus a driving force for covetousness and speculation, both by property developers offering a decent offer and by private individuals wishing to take advantage of a high-quality urban setting.

As a result of its findings, the garden of the railway workers' housing estate has been almost completely redesigned in terms of its ground treatment, its furniture and the purpose of the sub-spaces it contains.

The layout of the garden is divided into two parts along the 60 m, offering a play area with swings and slides placed on sandy ground. The other part is more varied, as it has a mineral layout in gray printed concrete that is not aggressive to the eye and enhances the vegetation character of the grassy area it encloses. The design of the garden may appear rudimentary as it does not explore a defined typology or fit in with the built environment. This is further evidenced by the disproportionate amount of grassy, mineral space in the garden area. Nevertheless, the separation of the space between the play area and the rest area prevents any segregation effect, both in terms of age category (children, adults, and elderlies) and gender category (occupied by pupils' mothers after school and by men after sunset) (see Figure 9).

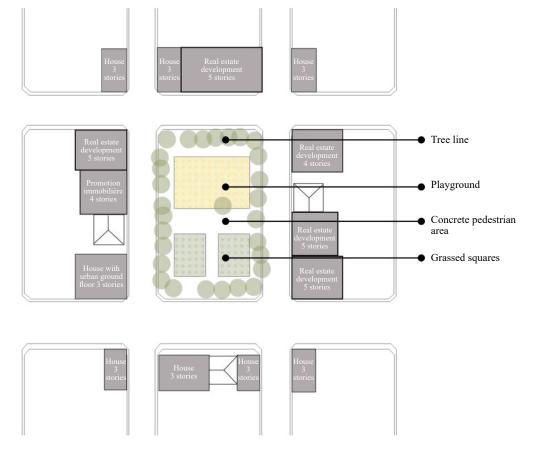


Figure 9. Schematic plan of actual railway workers' estate housing and its garden

4. Discussion: The garden of the railway workers' housing estate, a lever for urban renewal to be reconsidered

This aspect comes back to the interview from Madani's doctoral thesis [24]: "How to control the transformation of these districts? What would be the priority conditions for the successful renovation of these housing areas? By putting in place the necessary tools for the transformation of these neighborhoods and defining their specificities to insert a legal framework that allows these transformations and making it respected, the community must participate in these changes through complementary operations".

The current state of the garden and its surroundings in the railway workers' housing estate shows the heterogeneous nature of the built-up area, particularly the individual dwellings with a variety of architectural characteristics and limited durability. This is due to, as stated for the first urban renewal considered re-urbanization, the aging of the population, the exodus of the younger generation to more attractive centers, the ever-increasing land speculation in urban areas, and the scarcity of land. The garden of the railway workers' housing estate is now established as an urban and social centrality in the residential framework of the city; it will prove to be a considerable asset to the district and an important potentiality with regard to the land. The garden of the railway workers' housing estate should be considered a lever for urban renewal, in the same way as it was, but this time in an organized way. The simulation is valid for the plots of land where single-family houses are still missing.

In addition, a broader vision can be assigned to the railway workers' housing estate due to its location on the edge of the Avenue du 1er Novembre (formerly the Route de Constantine), which directly links the district to the city center and which has benefited for less than ten years from a tramway station welcoming thousands of visitors every day. Urban mobility is a global strategy for prospecting the city [25], redefining all the scales of the city of Sétif, whose

centralities are established by their articulation on the stop and destination points of the transport lines, undeniably producing an attractive effect. To this cause and effect, we cannot dissociate the railway workers' district, which will have to update its "residential character" to meet the needs and foreign uses brought by the tramway (see Figure 10). In view of this, the redevelopment of the housing estate's garden and its surrounding buildings could be the subject of a tactic combining the needs of the current inhabitants and foreign users by programming activities segmented by their timetable, as well as by setting up a system of "locks" managing the permeability of flows during the urban composition of the built environment on the southern side of the housing estate. The layout of the garden can also be oriented towards a flow management strategy that, through the layout, dimensions, and urban furniture, can encourage the reception of foreign flows or preserve the residential vocation of the district.

Indeed, if the garden is thus the central consideration, it is also an urban permanence in the same way as the dimensions of the blocks and the road layout. Thus, it has a historical character that could be reintroduced into the definition of land and building regulation rules.

The urban renewal of the last 30 years has made tabula rasa of all urban planning considerations in the district, redefining the boundaries of the plots within the blocks in order to divide them further, changing the character of the housing on the site and the built or unbuilt interface. With this in mind, it is necessary to return to a more contextual study of the rights to build in the definition of the urban planning certificates of the plots. The criterion of the prospect can be decisive in the framework of the limitation of the occupation of the land and the height of the buildings, and this is done by the obligation of respecting the prospect with respect to the public space but also to the limits of the neighborhood of the wall parallel to that of the street. The latter would become the element to be taken into account in any speculative effort and in the definition of buildable surfaces.

Upstream, different approaches can be applied according to the urban positioning of the site and its relations with other urban entities of different scales. The southern side of the railway workers' housing estate directly faces the Avenue du 1er Novembre and is the buffer zone between the urban scale of Sétif and the residential scale of the district (see Figure 11). This part of the housing estate thus has a high potential for development, as it should curb the covetousness of the other parts of the district. In this urban renewal approach, the rule of prospects comes into force from the moment it governs the plot layout according to the profitability of the operations to be undertaken within the limits of the blocks to be preserved. This is a preparation to be made before any operational phase and aims to simulate the effects of the construction on the rules of neighborhoods as well as maximize the profitability in height, as the prospect of the garden of the railway workers' housing estate allows.

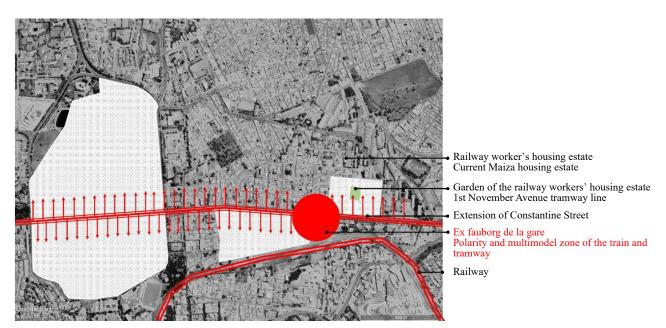


Figure 10. Satellite map illustrating the urban influences of urban mobility on the districts of the city center, the suburb of the station, and the railway workers' housing estate



Establishment of an attractive zone, overlooking the urban character of Avenue du ler Novembre and making a break with the residential character of the area.



Redevelopment of blocks in the residential area, in order to return to the scale of the city while retaining a local residential character.



The garden of the railway workers' housing estate, an interface for the inclusion of the district in the city of Setif, and for the residential character of the district

Figure 11. Satellite map explaining the role of the garden in framing future vocations oriented around the attractiveness of urban mobility and the residentibility of the railway housing estate

The north, east and west sides of the garden of the railway workers' housing estate define the inner side of the housing estate and thus the residential and local urban framework. From a historical perspective, it would be interesting to reconsider the parceling of the blocks in a logic of division inspired by the original, taking up the original implantations of the houses by urban buildings while granting building rights respecting the criteria of occupation of land and prospects.

The ground floor is the main communication platform between the urban space and the buildings. The introduction of an urban ground floor will make it possible to animate the square by programming medium-sized commercial activities in accordance with the above-mentioned division, giving life to the district without departing from its local character.

The design of the garden, relative to any approach, will take pride in the changes that will take place around it through a new distribution of its functional, mineral, and vegetal components through a physical integration of the circuits and the functional interface on the urban ground floor with the square. The scales of organization are also to be considered and should be reduced more on the north side than on the south one. A historical aspect to be preserved is that of the trees lining the block and forming a screen to be considered, both to accommodate the flows and to filter them.

5. Conclusions

This garden is an urban space to be considered very strongly in its current context, due to its very important and lively social aspect that led to its redevelopment and its spontaneous reinvestment by the neighborhood, as well as its formal configuration and its relationship with the built space that surrounds it and gives it its landscape identity. Moreover, the heritage it presents on the urban level means that it is considered a central element in any reflection on urban planning and architecture, both in current and local operations, but above all in the urban strategies requalifying the central scale of the railway workers' housing estate in the agglomeration of Sétif.

The garden of the railway workers' housing estate can thus be considered an interface of several elements to be reconciled in order to claim its quality and that of the district's livability. It is an interface between past, present,

and future because it is a structuring element in all the temporalities and mutations of its urban environment. It is a built or non-built interface in that it has governed and will continue to govern the speculative orientations and urban and architectural provisions of the buildings on its side. It is also a place-people interface, as long as its development responds to the aspirations of all components of the population without discrimination or segregation. It is a local- or urban-scale interface in that it should structure the hierarchies of the district in relation to its influencing environments.

The garden of the railway workers' housing estate is thus a set of assets and potentialities to be put into perspective in any spatial approach relating to its development and the redevelopment of its surroundings. This contribution identifies the current qualities of the garden and its potential in the context of urban renewal. It assumes a controlled urban renewal in order to better frame the urban orientations, which were absent during the first spontaneous urban renewal. The research focuses on the physical and morphological elements of the site, but the approach to a precise prospective study will be multidisciplinary. The socio-economic field is the instigator of this redevelopment and return of interest to the garden of the railway workers' housing estate. Thus, it would be necessary to understand this dynamic of urban gentrification experienced over the last 30 years by resorting to analyses such as the urban cycle theory to identify the integration of the railway workers' housing estate in the city process. It is necessary to complement it with other methods critical of it, such as Roberto Camagni's model based on the "prey-predator analysis method", respectively based on total urban income and urban rent. The whole community will have to evaluate the potential of the garden of the railway workers' housing estate in any future urban, urbanistic, socio-economic, or landscape intervention.

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Conflict of interest

The authors declare no conflict of interest.

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