

The Problematic of the North-Western Entrance of Tiaret (Algeria) Through the Key Concepts of Urban Design

Bouarroudj Radia¹, Redjal Omar², Aiche Messaoud³, Belhadi Chaima⁴

¹*Department of Architecture, Bioclimatic Architecture and Environment Laboratory (ABE), Constantine 3 Salah Boubnider University, Algeria.*

²*Institute of Urban Technical Management, Energy and Environment Laboratory, Constantine 3 Salah BOUBNIDER University, Algeria.*

^{3,4}*Department of Architecture, Constantine 3 Salah BOUBNIDER University, Algeria.*

Abstract

A city entrance is, above all, a place of transition between two spatial entities defined by two components of a generally different nature. The first is necessarily urban; the second, most of the time is rural. This study assesses the north-western entrance of Tiaret (north-western Algeria). Tiaret presents a marginalized urban landscape, where the space is not experienced in the same way, given the modes of appropriation and understanding. It is necessary to successfully balance the spontaneity and the order of the urban while integrating the landscape. At the same time, all operations privilege one component over another while creating disorder and disorder in the landscape. There is thus a juxtaposition of urban and rural logic, a blurred and ambiguous space where the limits are no longer palpable. A qualitative survey was conducted on three main points: identity, image, and appropriation (urban devitalization) to highlight the urban and natural potential of the north-western entrance of Tiaret. An urban analysis supported the results obtained based on the key concepts of urban architecture. The latter indicate that the site has a good variety, legibility, and richness, which confirms the results of the survey: more than 50% of the native inhabitants of the area declare that the north-western entrance of the city has a good image, through which they identify themselves, which justifies the high rate of ownership.

Key words: Urban Design, City entrance, the city of Tiaret, Landscape, opportunity.

INTRODUCTION

The topic of city entrances has covered different realities since the Middle Ages or refers to the city's physical gates. This historical typology of city entrances emphasizes the link between the morphology of city entrances and the size of cities. Indeed, city entrances have evolved and have come to designate various realities that refer to very different situations. If they are always in function of their evolution (Běň, 2020). The impact of the image of the city entrance goes far beyond its limits and influences how the city is perceived. The succession of landscape sequences that constitute the first visual contact of any person entering the city is particularly important. Choosing the visual image does not mean being satisfied with a superficial approach concerning only the appearance of things (Mignot, 1988). On the contrary, the image is considered support and a means to reach a deeper level of investigation (Mignot, 1988).

Today the question of "city entrances" is one of the city's priorities in terms of development and urban planning. Often made up of architectural objects synonymous with standardization, such as the naked roundabouts of treatments, the proliferation of advertising signs, and all kinds of heterogeneous displays that reduce to nothing, not only the identity of the city towards which one is heading but also break the one that one is crossing (Bendjelid, 1998). We note the infrastructures among the most basic forms of development on which the city entrances are created. This connexion seems to escape the urban projects and pose a real problem. Obsolete architecture, advertising signs on both sides, and the poorly controlled expansion of the entrances to cities have resulted in urbanization based on the dominant logic of automobile accessibility and mass distribution (Cattedra, 2010). The landscape generated is heterogeneous, banal, suffering from a loss of identity, and without overall compositions. Then, the communication networks and movement dictate the space, expressways, and ring roads. The entrance to the city becomes a purely urban sequence, where the road is transformed into an urban axis that stands out from the road landscape (Merdji, 2010).

To this end, it will be necessary to revitalize, restructure and enhance the image of peripheral areas in a coherent and comprehensive logic at the city level. This will make it possible to meet the major objectives of the city's urban project, namely: to pursue a quality urban, architectural, and landscape treatment; to build the city on itself; to develop quality public spaces, to maintain social and intergenerational diversity, to promote urban diversity and to integrate a wealth and variety of functions within the living environment (Cattedra, 2010). Unfortunately, the problem of city entrances in Algeria is almost non-existent. We can say that it is self-formed by the city limits, roads, and the succession of landscapes. It is an inevitable urban sprawl (Hadjidj, 2002): from correct signaling to a simple arrangement until reaching what is done nowadays "the polarization of the entrances of cities" (Meribai, 2019).

PROBLEMATIC

Tiaret is an important city in north-western Algeria, located in a region with high plains. It geographically occupies a strategic position that gives it the status of a link between the wilayas of the north-western region and those from the south. The historic city center combines the two architectural styles, traditional and colonial, divided into two distinct housing areas the old city in the north that extends to the south and the new urban housing area in the south dominated by the fort. The north-western entrance of the NR23 (National Road 23) of Tiaret presents an anarchic urban landscape due to the rapid growth of cities that leads to a disorderly urban sprawl whose concept of entry is completely abandoned. The report highlights the difficulties in finding one's place in the city, the lack of landmarks, and the absence of a sense of belonging. The entrance route crosses neighborhoods that are juxtaposed but that have no functional continuity.

In this space, the automobile is primordial. All displacements require a means of travel. The bangs of cities are no longer on a pedestrian scale. To this end, an urban requalification operation should be carried out to restore life, values, and practices to a given space that has been downgraded for one reason or another. The requalification of city entrances aims to give the latter an image that reflects the cultural and economic power of the city. Entrances are called upon to become poles of urban concentration, not spaces of transition between the city and its periphery.

METHODOLOGY

For a better reading of the framework studied, namely the north-western entrance of Tiaret, it was necessary to conduct a qualitative survey of 50 native people of the city. The results were supported by an urban analysis using the key concepts of urban architecture, namely:

- a typo-morphological reading according to the theories of Philippe Panerai,
- a sequential analysis following the precepts of Gordon Cullen.

The selected results were analyzed according to Bentley's seven urban qualities.

The Qualitative Survey

Qualitative research is based on specific methods of collecting and analyzing material consisting of observations (direct, participant, or covert) and/or discourse (solicited interviews, spontaneous statements, various testimonies); these techniques are often combined. It is a field survey in the sense that it generally implies a more or less long period of immersion on the part of the investigator(s) and a "decentering" of the research (Roselli, 2010). In the course of this research work and during our qualitative survey, we referred to random sampling.

Faced with the impossibility of having a satisfactory sampling frame adapted to the problem being addressed and with the practical difficulties of implementing spatial sampling methods, we are often forced to abandon rigorous random methods. For this reason, some authors propose getting around the difficulty of using random sampling. This type of sampling is useful insofar as the individuals surveyed willingly submit to the survey, as is the case with all surveys using questionnaires made freely available to the public and, as circumstances dictate, without any consideration of the criteria for choosing the individuals; these samples are sometimes called "blind samples" (Martin, 2017).

Typo-Morphological Analysis

The typo-morphological approach is based on the system of decomposition/recomposition. This method is established with the help of three reading criteria (topology, geometry, and dimension), allowing to understand and grasp through a horizontal and transversal reading the complexity of the relations between the different frames constituting the urban fabric.

Sequential Analysis

With this technique, Cullen (1961) aimed to renew the approach to morphological analyses of cities, until now, based essentially on the two-dimensional analysis of plans. Cullen (1961) emphasized how the slightest deviation in alignment, a small projection, or setback in the plan has enormous repercussions in the third dimension. At the same time, and in contrast to classical representations of architecture in perspective, the pedestrian's vision evolves as he explores the urban space. In this exploration, the perceived landscapes speak to the observer with a particular language, perceptive and symbolic, made of openings and closings of the visual field, of exposure or partial unveiling to the architectural elements, invitations to exploration, or repulsion¹.

Bentley's Seven Qualities of Urban Architecture

Bentley (1985) explained that the built environment must provide users with an essentially democratic setting and thus maximize the degree of choice available to them. He described places that meet these criteria as sensitive. Moreover, he defined the different aspects in which the design of a place can affect individual choices²:

- Permeability affects the movement of city dwellers and determines where they can go and where they cannot.
- Variety affects the number of uses offered in the location.
- Legibility affects how individuals understand their opportunities and how public and private space is distributed around them.
- Robustness affects the usability of a building for different purposes in the short and long term.
- Visual accuracy affects the intuitive interpretation that people have of a place. It makes them aware of what is available to them as an environment.
- Richness affects the choice of sensory experience. This quality is on the scale of the details
- Personalization affects the ability of city dwellers to make a place their own.

OBJECTIVES

The study aims to reflect on the solutions that should be brought to take adequate measures to intervene in the city entrances taking into account the socio-cultural and ecological context in particular. Thus, the main question challenges us: *What is the impact of the image that the north-western entrance of Tiaret reflects on its inhabitants?*

Theoretical Background

In French literature, the city entrance refers to a very particular space. These commercial spaces are subject to few urbanistic, landscape, and aesthetic considerations. One generally associates the entrance of a city or peri-urban. It is at the interface of the city and the countryside and therefore represents a blurred, ill-defined area with a character distinct from that of the city. This constantly evolving zone functions according to its principles, often governed by economic interests. Thus, there is the city and the spaces around it; through these spaces, we find the city entrances (Novarina, 2015). However, a general model is rapidly developing at the entrances to cities: services and shops adapted to the ease of circulation of urban flows, but above all, the ease of access and the good structuring of large parking areas. These activities respond in terms of surface area and convenience to the new developments and transformation of social life.

Presentation Of The Study Site

Located 361 km southwest of Algiers, Tiaret covers an area of 20.673 km². It is located at 1100 m on the mount of Gezoul, with a population of 932,442 (2016). It is characterized by its extreme youth and high rate of urbanization (Figure 1). However, our study site is located at the north-western entrance of the city Tiaret, bounded by two axes: the NR23 and the street HamadaniAdda opposite the recreational forest.

The slope of the land in the longitudinal direction is low at 0.3%, and the slope in the transverse direction is high at 6.1% (Figure 2).

¹<https://unt.univ-cotedazur.fr/uoh/espaces-publics-places/approfondissement-theorique-lanalyse-typo-morphologique/>

²<https://jyvaskyla-finlande.wixsite.com/designurbain2015/blank-c24vq>

The type of land is Forestry near serviced land, whose surface is 15 hectares. The site is located: - 2.3 km from the City Center - 0.63 km from the Leisure Park - 1.77 km from the Hospital - 0.5 km from the Recreational Forest - 0.84 km from AflahHigh School - 7 km from Karman University 1 - 4.2 km from Gaied Ahmed Stadium (Figure 3)

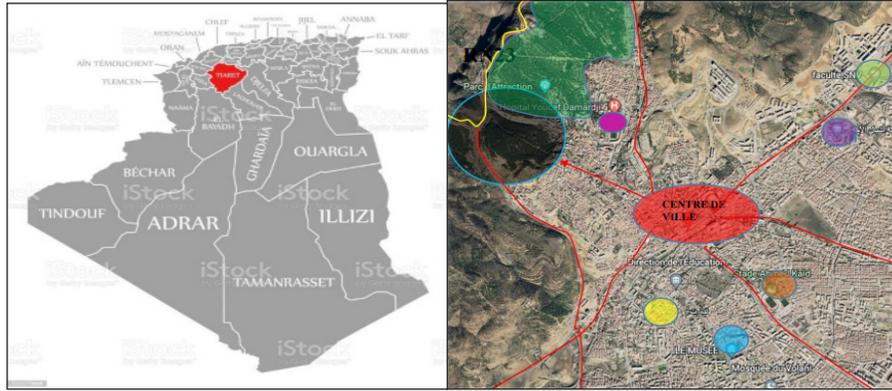


Figure 1. Location of Tiaret in Algeria/ north-western entrance. Source: <https://www.skyscrapercity.com/threads/tiaret-north-west.877350/>



Figure 2. View from North-South “cross-sectional direction. Source: Authors, 2022

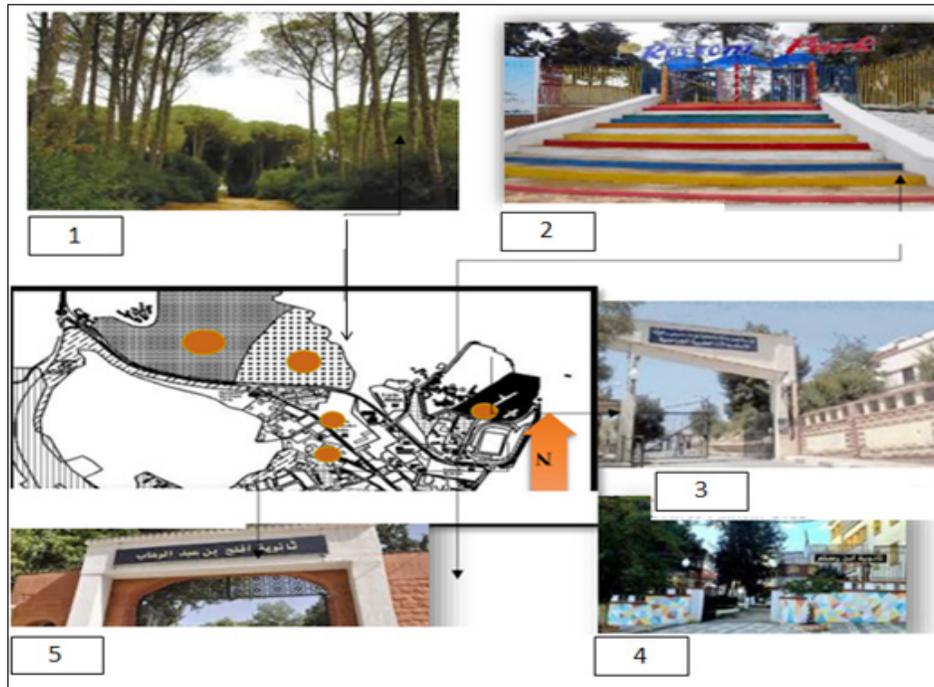


Figure 3. Thevarious facilities at the north-western entrance of Tiaret. Source: Authors, 2022

1- Pine Forest 2- Leisure Park 3- YouvefDamerji Hospital 4- AflahAbdouaheb High School 5- High School

RESULTS OF THE SURVEY

Initially, the aim was to establish a qualitative survey of the inhabitants of Tiaret. The survey was developed in March-April 2022 with fifty people native to the city, consisting of 25% of women between 35-50 years, 15% of old between 70-80 years, 35% of young between 22-33 years, and 25% of men between 35-50 years. The questioning is mainly based on three themes: the image of the city's north-western entrance, the notion of identity, and the feeling of belonging (urban devitalization). The results show that more than 55% of men and 35% of women declared the city's natural landscape pleasant. However, an average of 30% felt the image was bad, mainly due to the anarchic urban landscape and the lack of necessary facilities and equipment, despite the area's richness (Figure 4).

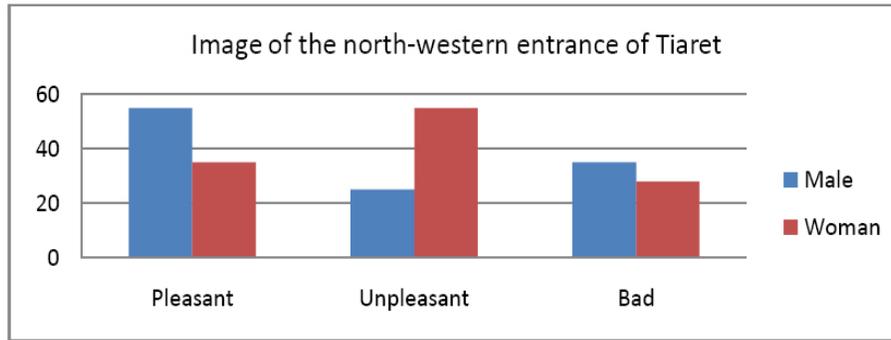


Figure 4. Image of the north-western entrance of Tiaret. Source: Authors, 2022

The selected results led us to question the inhabitants on the issue of urban devitalization. Indeed, the difficulties of finding one's place in the city, having landmarks, and developing a feeling of belonging are quite recurrent nowadays. The entry route crosses neighborhoods that are juxtaposed but that have no functional continuity. In this space, the automobile is of primary importance, and all movements require a means of travel. The answers we received led us to question the difficulties of access, of which we note that more than 60% of the people questioned had difficulties of access (Figure 5).

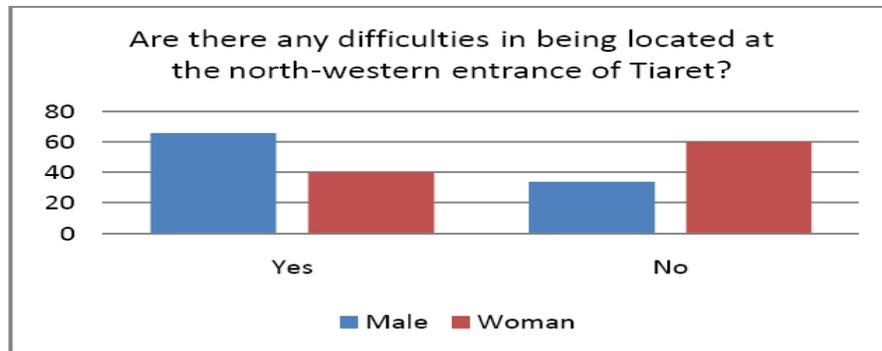


Figure 5. The difficulties of being located at the north-western entrance of Tiaret. Source: Authors, 2022

Thus, the results show that more than 60% of the inhabitants identify with the Leisure Park and the Pine Forest (Figure6).

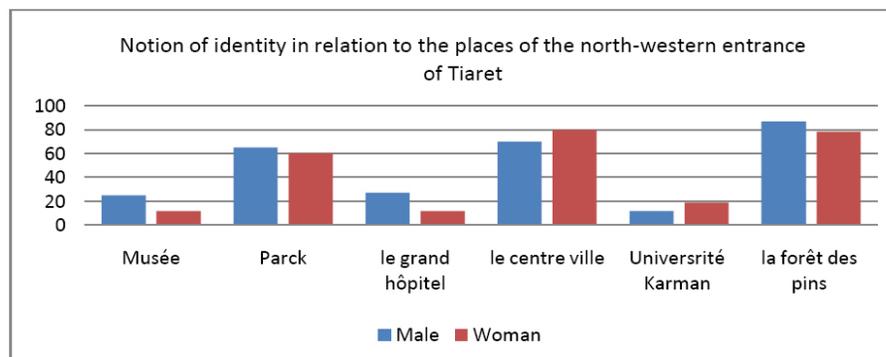


Figure 6. Difficulties of being located at thenorth-western entrance of Tiaret. Source: Authors, 2022

To support the results, the rate of use of the spaces was determined through observation. The results show low attendance in the neighborhoods, medium attendance in the school and health facilities, and high attendance in the recreation park and bus station (Figure 7).

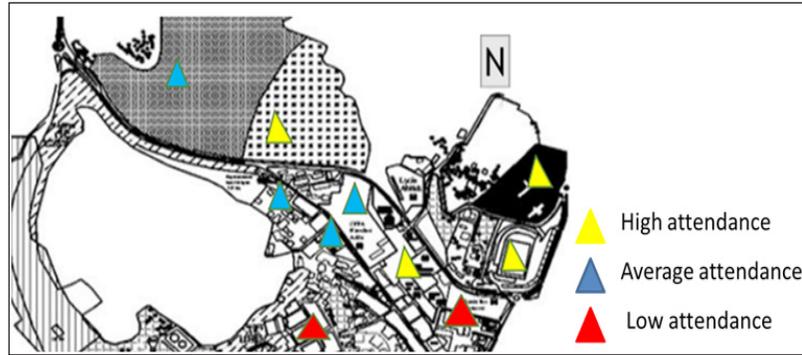


Figure 7. The attendance rate at the north-western entrance of Tiaret. Source: Authors, 2022

This finding is supported by the survey results and confirms the previously retained results, namely the image and identity of the north-western entrance of Tiaret (Figure 8). We note a very high rate of frequentation at the level of bus stations, park, and forest, while a rather average frequentation at the level of health facilities and neighborhoods.

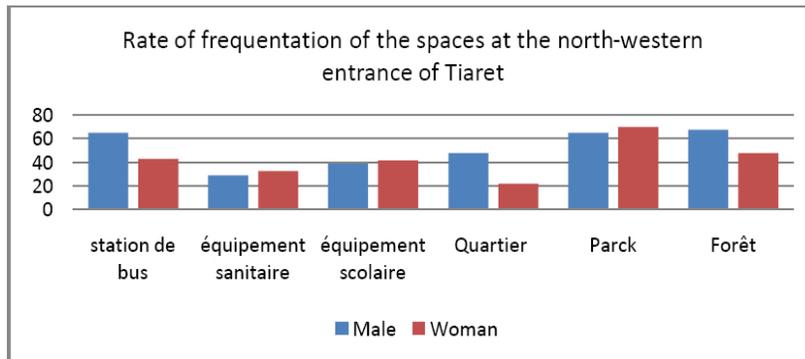


Figure 8. Rate of use of spaces at the north-western entrance of Tiaret. Source: Authors, 2022

All the results presented above were confirmed by the results related to the feeling of belonging, where more than 50% of the inhabitants questioned affirmed their feeling of belonging but deplored the existing built environment (Figure9).

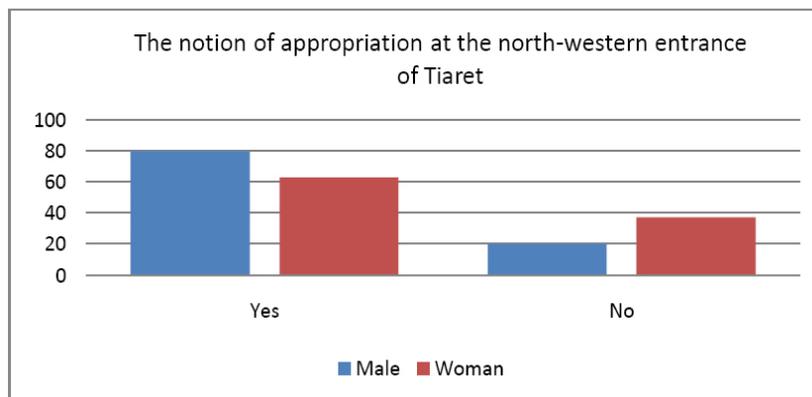


Figure 9. Rate of use of spaces at the north-western entrance of Tiaret. Source: Authors, 2022

According to the results, the appropriation of the space is relative to the users and their interests in it. The user just passing through does not have a great interest in the landscape. He considers this space as a transition space between two entities. Indeed, the site analysis supports the observation, which shows that the site is accessible by two structuring axes: NR23 and street HamdaniAdda. The nodes and traffic circles offer better accessibility and legibility to the space (Figure 10).

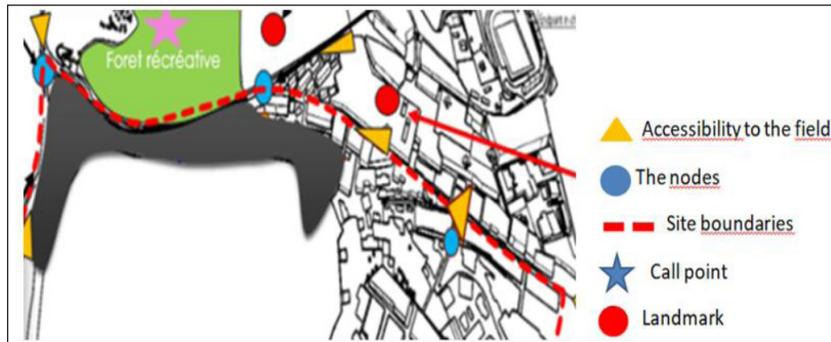


Figure 10. Synthesis map highlighting Kevin Lynch's principles. Source: Authors, 2022

The typo-morphological analysis revealed a scattered urban fabric, an irregular parcel layout where the full dominates the empty with mixed forms "islands of different shapes," as seen from the fact that there is no regular layout on the site (Figure 11).



Figure 11. Morphological layout of the north-western entrance of Tiaret. Source: Authors, 2022

A dominant form has been identified where we find the block of pavilion type, which gathers a group of buildings of different functions (Figure 11).



Figure 12. The different types of islands. Source: Authors, 2022

During our survey, the inhabitants deplored the built environment, which the urban analysis of the latter revealed (Figure 13):

- newly constructed buildings with facades referring to the colonial style in the residential sector while combining the two types of collective and individual housing;
- colonial style buildings being restored;
- informal housing results in an anarchic urban façade that does not refer to any architectural style or the city's identity.



Figure 13. The different types of habitats at the north-western entrance of Tiaret. Source: Authors, 2022

For a better understanding of the context, it was a question of establishing a sequential analysis during which a set of effects were deduced: competition effect, profile effect, convexity effect, opening effect, lateral boundary effect, and return effect (Figure 14).

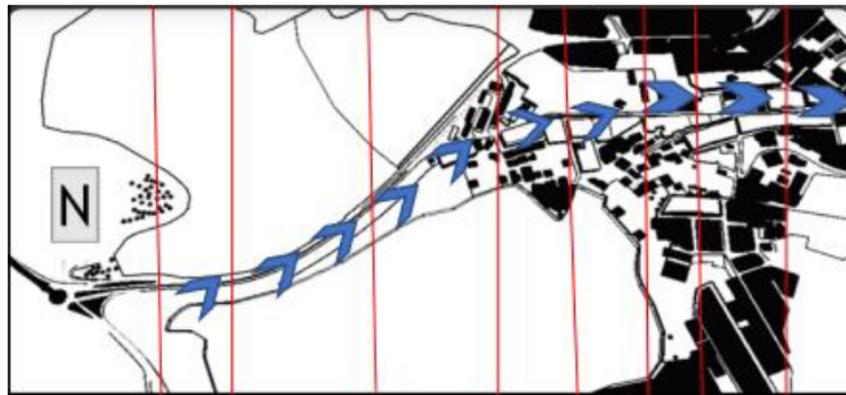
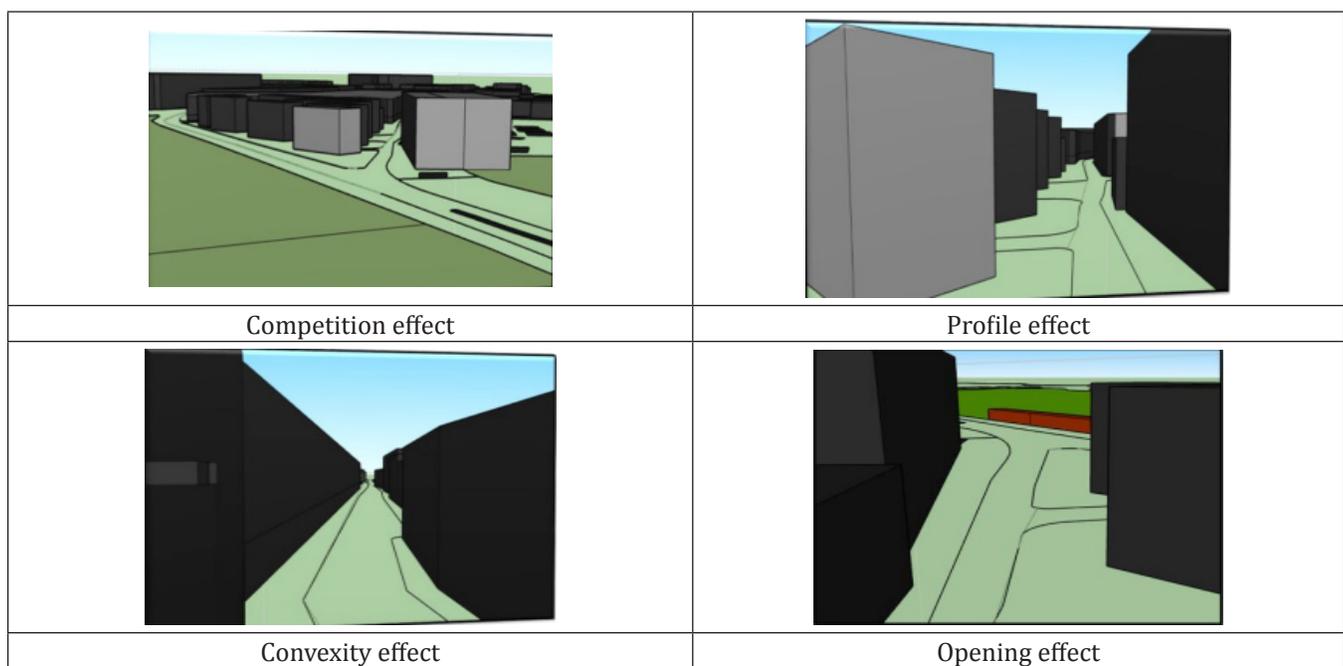


Figure 14. Sequential analysis of the north-western entrance of Tiaret. Source: Authors, 2022



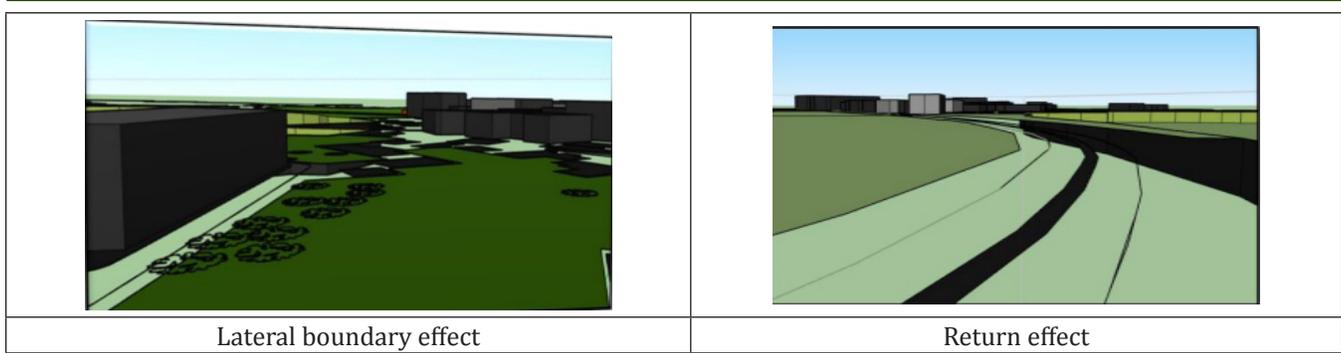


Figure 15. The different effects identified in the sequential analysis. Source: Authors, 2022

DISCUSSION

The analysis of the results obtained highlights previously the seven qualities of the urban architecture of Bentley:

- good permeability due to the variety of access and opening effects,
- good legibility refers to accessibility through nodes and traffic circles,
- a medium diversity which is related to the lack of facilities,
- a great richness due to the natural potential of this site,
- an almost total absence of robustness is mainly due to the lack of activity.

However, the site presents several important assets and opportunities, namely the absence of risk of landslides, a panoramic landscape overlooking the city of Tiaret, and an altitude of more than 1100m. The site also offers the opportunity to create spaces for relaxation and intervene to improve the image of the north-western entrance of Tiaret. The site also highlights several weaknesses and threats such as fast mechanical flow, unsecured site, lack of development, lack of transportation network, and lack of engaging activities and facilities.

To this end, a set of recommendations was established based on the results retained:

- The current entrance to the city requires a radical intervention but in harmony with the whole. Given its strategic location in the highlands, this presents an opportunity that should be enhanced. To do this, we suggest bringing variety and richness simultaneously. We projected cultural, sports, tourist, and commercial facilities for this proposal.
- Given the considerable mechanical and pedestrian flow, the two mechanical lanes NR23 and HamdaniAdda Street that limit the intervention sequence should be connected. Limited accessibility between the two districts and the pine forest.
- The projection of a new mechanical roadway between the sequence and the two neighborhoods (Pines and HamdaniAdda) improves the mechanical legibility and permeability at the same time and ensures a variety of accesses, and promotes the pedestrian flow along the entrance through the passages and the esplanade that penetrates and connects between the different spaces.

The existing context covers natural landscape and residential areas and a limited number of facilities which leads us to the search for robustness through the projection of commercial activities, playgrounds, and relaxation. To do this, we schematized our recommendations (Figure 16).

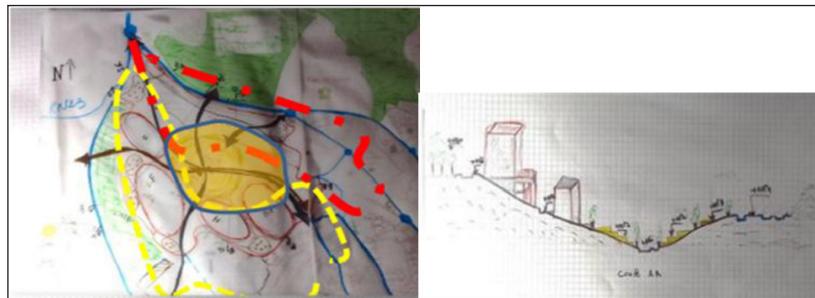


Figure 16. First step of the block diagram. Source: Authors, 2022

1. First, we drew two main axes to link our project with its immediate environment. A set of equipment was integrated linearly to respect the land's morphology. We developed our intervention area's central space as a public park.

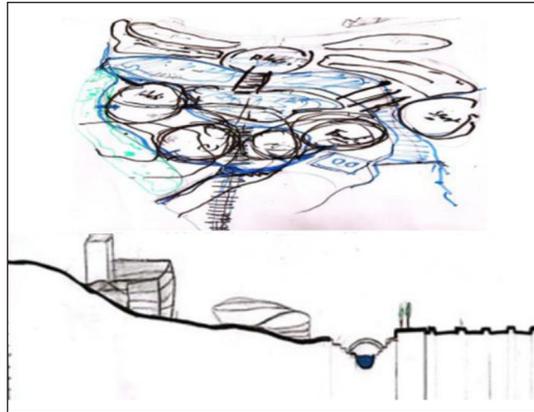


Figure 17. reflection on the issue of accessibility. Source: Authors, 2022

2. While keeping the logic of integration. The latter gave a certain atmosphere and offered us other possibilities of development represented on the sections and urban facades, or we tried to compose with the morphology of the site as well as the immediate environment.



Figure 18. Attempt at composition with the morphology of the site. Source: Authors, 2022

3. It was also a question of defining the surface of the equipment and deciding on its functions. We tried to define and delimit each space's function and layout during this step. It was also a question of defining the surface of the equipment and deciding on its functions.
4. Finally, we tried to bring the necessary arrangements to our project by concretizing all the key concepts of urban architecture, namely diversity, and mixity.

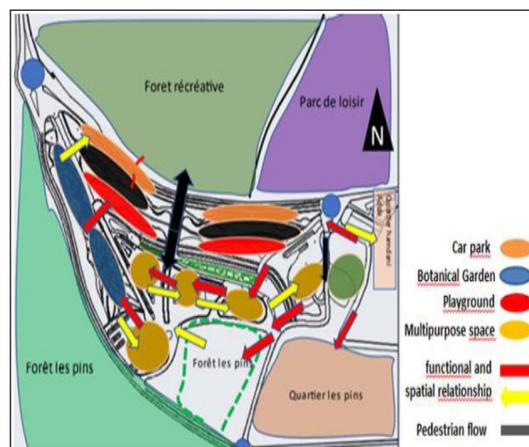


Figure 19. Final schematic diagram. Source: Authors, 2022

CONCLUSION

The analytical approach of the North-western entrance of the city Tiaret shows that the latter is the result of the intersection of a set of geographical, cultural, and social elements. It will be necessary to recall that it is also the effect of interference between several urban operations unthinking. The result allowed us to highlight the natural and urban potential of our study site where the need to intervene to define a better-built environment. Indeed, symbolism is almost absent in these spaces. The invitation to the city, the emotion of the entrance, the emotional resonances, the sensitivity, and the perception of the city's identity remain quite ephemeral. The anarchic proliferation of buildings without architectural character and the spontaneous appropriation of space create an urban confusion that alters the city's north-western entrance image. The transition from peri-urban to urban is brutal. Thus, the entrance does not fulfill its function as an entrance as desired.

REFERENCES

1. Běň, H. (2020). *Mémoire Entrée de Ville Quentin Barbier*.
2. Bendjelid, A. (1998). La fragmentation de l'espace urbain d'Oran (Algérie). Mécanismes, acteurs et aménagement urbain. *Revue Algérienne d'Anthropologie et science sociale*, 61-84.
3. Bentley, L. (1985). *Responsive Environments : a Manual for Designers*, London. Architectural Press.
4. Bentley, L. (1999). *Urban Transformations: Power, People and urban Design* London. Routledge.
5. Cattedra, R. (2010). Les grands projets urbains à la conquête des périphéries. *Les cahiers d'EMMAM*, 58-72.
6. Cattedra, R. (2010). Les grands projets urbains à la conquête des périphéries. pp. 58-72.
7. Cullen, G. (1961). *Paysage urbain*. Reinhold Pub.
8. Gordon Cullen. (1961), *Paysage urbain*. Reinhold Pub. Corp. Contrôle LC # 3 .C8. 8077783464
9. Gordon Cullen. (2018), *Le paysage urbain concis* . ISBN 0-7506-2018-8
10. David Gosling, F. N. (1996). Gordon Cullen: Visions du design urbain. Académie.
11. Francis, M. (2003). *Urban Open Space*. Washington Island Press.
12. Hadjidj, D. (2002). Urbanification et appropriation de l'espace. Le cas de la ville d'Oran. *Insaniat*, 237-243.
13. Kevin, L. (1982). *Voir et planifier: l'aménagement qualitatif de l'espace*. Paris: Dunod.
14. Lynch, K. (1976). *L'image de la cité*. Paris: Dunod.
15. Martin, O. (2017). l'analyse quantitative des données. *Armand Collin*, 22-23.
16. MERDJI, S. (2010). *METAMORPHOSE ARCHITECTURALE DU PAYSAGE URBAIN CONSTANTINE / DE LA VILLE COLONIALE A LA NOUVELLE VILLE*. Mémoire de magistère.
17. Meribai,A.m.(2019).https://www.researchgate.net/publication/337548544_essai_d_analyse_de_la_polarisation_des_entrees_de_villes_et_leur_impact_sur_la_mobilite_cas_de_constantine.
18. Mignot, J.-F. (1988). L'image de marque de « l'entrée de ville » de Vitrolles. *L'espace géographique*, 131-139.
19. Novarina, N. (2015). Entrée de ville, un territoire sous tension. Analyse d'un projet de requalification de l'entrée Est de Saint-Étienne. *HAL*.
20. Roselli, M. (2010). Les enquêtes qualitatives en bibliothèque : quelles techniques pour quels résultats ? *Presses de l'enssib*, 80-92.

Citation: Bouarroudj Radia, Redjal Omar, et al. *The Problematic of the North-Western Entrance of Tiaret (Algeria) Through the Key Concepts of Urban Design*. *Int J Innov Stud Sociol Humanities*. 2022;7(7):86-96. DOI: <https://doi.org/10.20431/2456-4931.070708>.

Copyright: © 2022 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license