*International Journal of Computational and Experimental Science and ENgineering (IJCESEN)*

*Vol. 11-No.4 (2025) pp. 9624-9633*
*http://www.ijcesen.com*

***ISSN:2149-9144***

*Copyright © IJCESEN*

**Research Article**

# For a best quality public square in Biskra city, Algeria.

**Dakhia Azzedine***

Mohamed Khider Biskra Üniversity, Architecture, Urbanism, Civil Engineering and Hydraulic Faculty, Architecture Department, Lacomofa Lab., 07000 Biskra-Algeria

* **Corresponding AuthorEmail:** az.dakhia@univ-biskra.dz- **ORCID:**0000-0002-5342-0493

**Article Info:**

**DOI:**10.22399/ijcesen.4327
**Received :** 15 Octoberr 2025
**Revised :** 10 Decemberr 2025
**Accepted :** 13 December 2025

**Keywords**

Urban space quality,
Public places,
Sociability,
Climate Context,
Spatial and Sensory dimensions.

**Abstract:**

The problem addresses qualities of public spaces in arid regions with hot and dry climate, and its direct impact on the use of these public places and on the urban landscape. This work aims to define the parameters of quality of public spaces in the context of Algerian women. By simply reading, this research is interested in exposing the urban situation of the city of **Biskra** and this reality that now specifies the act of building, with all its inconsistencies, its dysfunction, the quality of the built environment and its living environment.Based on a comprehensive approach to public spaces, based on the methodology of William H. Whyte (1980), and through the observation of its uses we arrive at defining the criteria for good quality of urban spaces. Thus, the research has developed from a field work, focused on the technique of direct observation (taking notes) and the recurring observation of three public places in the city of Biskra. Using our observations, we have tried to draw up a list of qualitative characteristics of public places, according to social, spatial and sensory dimensions.

## 1. Introduction

In the current context, the Algerian State attaches great importance to protecting and improving the quality of urban living. Indeed, large budgets are devoted to the construction and maintenance of urban public spaces to ensure the well-being of city dwellers. This interest is reinforced by the appearance and approval of laws that integrate sustainable development as the key to all interventions in cities, a fashionable notion that has profoundly influenced all planning interventions in our cities.

This interest is also evident in the city ***laws 06/06 of 20/02/2006*** on the city and sustainable development. Urban improvement is one of the operations resulting from this law, which aims to promote quality public spaces and review the way in which they are produced, interpreted by a desire to integrate local factors of each region such as the architectural hidden, building materials and technologies, micro-climate, and social aspects,…etc.

This will remains black on white, because on the ground, we continue to design and produce places and public spaces in a standard way 2, urban interventions that do not take into account the local requirements of users (*social, functional, comfort*), thus giving stereotypical public places that do not attract users!.

- What are the quality criteria for public spaces in our cities?
- Which public space do users prefer?

Before we start defining the dimensions of the quality of our public places, two concepts must be defined and ***contextualized public place*** and ***qualities of public spaces***.

## 2. Public Space Quality.

Urban planners, architects, and researchers have been concerned about the quality of public spaces. Whyte's study (W. Whyte, 1980) of public squares in the city of New York uses in situ observations that focus on spatial, sensitive and social qualities. Indeed, this research was developed from a field work focused on video recordings of the studied spaces, whose results were integrated into the zoning regulation of the city of New York.

Furthermore, the work of Kevin Lynch (K. Lynch, 1989) on the perception of urban spaces, and the perceptual quality of the built environment, is done by organizing these different components in an overall structure that allows us to give it meaning.

He has thus shown the qualities that can facilitate legibility: the degree of contrast and distinction; the simplicity of the geometric shape and its parts; the continuity of the form, the dominance (size, interest, intensity); the clarity of the dots; the indication of direction; the extent of the field of vision; the presence of visual and kinesthetic clues; the identification of elements using names or symbols. According to Lynch, the three essential components of structuring "***mind maps***" are: ***identity***, ***structure*** and ***meaning***.

In the same vein, and more recently, work on public spaces in New York City (R. Ewing, 2013), marks the evolution of Lynch's approach, proposing 51 perceptual quality criteria for public spaces, including 9 detailed evaluation criteria on the theoretical and practical level, namely, imagiability, embossment, human scale, transparency, complexity, coherence, readability, connectivity (linkage) and cleanliness (tidiness).

Several other compilations and empirical studies have gathered a large amount of knowledge on comfort in public spaces as one of the qualities of well-being (Anderson J., Ruggeri K., Steemers K., & Huppert, F. 2017).

There are many interactions between urban morphology, the microclimate of a public space and the well-being of pedestrians.

Public space cannot be considered as residual space. The variation in the morphology of the latter can lead to distinctive variations on microclimatic parameters, including temperatures, relative humidity and air velocity. More recent studies have focused on the sensory quality of public spaces.

Research on public spaces in the city of Paris (L. Grésillon, 2010) adopted a multi- sensory approach that is the basis for a *«desirable urban design, the multi-sensory urban design creates diver's environments, more comfortable, more attractive, and more convenient also for people with sensory and motor disabilities»* (F. Ascher,2004).

Other studies have focused on the ergonomic quality of public spaces and their accessibility to people with reduced mobility (CERTU, 2005); this approach consists in making a qualitative and quantitative evaluation of the tasks performed by users (pedestrians) during their movements in this space, using software called Access.

*«The typology of task and their notations make it possible to identify, as examples, the points on which the efforts of design or correction in terms of accessibility would have to be made (...) finally, the application of the software, constitutes a database of observations and qualification of the activity of users in a selected public space, according to this ergonomic approach. »*(CERTU, 2005), this study made it possible to produce the ergonomic profiles, in order to establish an overall assessment of a path.

On the other hand, other research in social sciences (J.-Ph. Dind, 2008), the quality of public spaces is synonymous with conviviality.

In the public spaces of neighborhoods in France, Dind (starts from the observation of the declassification of public spaces), spaces that are either deserted or cluttered, in peripheral districts. According to him, the four design principles that enable the production of convivial public spaces in neighborhoods are: congruence, diversity, adequacy and unity.

Moser's interpretation of quality is: *«the requirements for quality of life are not universally the same. Space needs vary, from various cultures, and depending on the individual's position in the life cycle »* (K. Moser Get Weiss, 2003).

As a result, can the qualities of public spaces mentioned above be applied in the same way to public spaces and squares in Biskra , one of the Algerian cities?

Are the results and guidelines of the studies cited above feasible for public places in the Algerian context?

***Table1***. *Quality public spaces well+-made. (Source: Lynch. K1965, Ewing R. & Cleem O. 2013) Social, Perceptual Environmental Aspects.*

| **Social Aspect** | **Perceptual Aspect** | **Environmental Aspect** |
|---|---|---|
| Social cohesion / Friendliness<br>Mixity<br>Social / Sociability<br>Security<br>Respect for Social | Readability / Consistency<br>Sense of security<br>Aesthetic<br>Respect human scale | Strengthens nature in the city<br>Biodiversity and Vegetation |
| ↓ Social cohesion<br>↓ Social Segregation<br>↓ Discrimination<br>↓ Verbal and Physical abuse<br>↓ Isolation and Social Exclusion. | **Qualities of Publics Spaces** | ↓ Overall cost of Implementation and Management |

***Table 2***. *Quality public spaces well-made. (Source: Lynch. K1965, Ewing R. & Cleem O. 2013) Psychological and Sensory Aspects*

| **Psychological and Sensory Aspects** | **Conceptual and Morphological Aspects** | **Functional Aspect** |
|---|---|---|
| ↑ Psychological well-being<br>↑ The Stress | ↑ Respect for the context: Historical, architectural, urban | ↑ Mix of uses<br>↑ Respect for functional diversity<br>↑ Juxtaposition and flexibility of activities, coexist<br>↑ Travel safety : |

| | | |
|---|---|---|
| | ↑ Physical and Physiological Comfort: thermal, acoustic, etc... | pedestrians / vehicles<br>pedestrians / pedestrians<br>↑ Accessibility |

## 2.1. Public Space in the Traditional Arab City.

Before the colonial urbanism, the Arab-Muslim city; ***Ksour***, ***Medina***, and ***Casbah*** , consisted of a series of public spaces; squares, streets, alleys and dead ends, often considered as residual spaces between buildings and a result of the arrangement of homes and public facilities.

According to Wirth; *« the traditional Islamic city is often analyzed as an object without public spaces in the western sense of the term because it appears as a sum of private segments»* (E. Wirth, 1997).

This current considers the public spaces of the traditional city as mere residues, given the privatization, the poverty of the conceptions and the simplicity of the assigned functions; *«Publics spaces are abandoned or reduced to residual spaces, destined for rampant privatization or vacant lot as structuring functions of public spaces are then devolved to a set of community buildings, Mosques, Hammams, Coranic-schools»* (Joseph I., 1990). In this perspective, the public squares of the traditional Arab-Muslim cities, compared to the western cities squares of the same period, they do not play the same role: *« Were designed as places of gathering or meeting where municipal affairs were discussed, thus taking up practices related to the Greek agora or the Roman forum. »* (S. Toumi ; R. Vidal, 2011).

### 2.2. Compliance with formatting requirements.

The public squares of the traditional Arab-Muslim cities did not fulfill this function of discussion, Eastern cities were unaware of the existence of such practices and therefore the usefulness of public places dedicated to their exercise.

No public or civic square made up the urban landscape (S. Toumi; R. Vidal, 2011).

This trend consisted in justifying the absence of public spaces in the traditional Arab-Muslim cities by its comparison with the western cities of the same. In reality, the traditional Arab-Muslim cities are rich in public spaces; thus, within its walls, there are spaces that can be described as public and which undergo a strong gradation vis-à-vis their position in the city, «the dichotomy public space/ private space, repeatedly reported through the spaces of the inside (***Dekhel***) and those of the outside (***Barra***) in the habitat of the countries of the Maghreb and the(***Machrek***), is carried over into spatial practices at city scale. Not identical but by a hierarchy that goes from the place accessible to all to the one controlled and marked by those who live there. This spatial hierarchy is signified by different levels of public space (N. Dris, 2002).

In fact, the public square is commonly referred to by the term **Rahba**, which means a vast and wide space, or a place where a market is held, permanent or temporary, when the word is attributed to the name of a product or a commercial activity: such as a carpet market in Ghardaïa. Indeed, these places did not play the same role as western places; often located at the gates of the city, they had other functions; commercial, reception and festivities.

As described by Benyoucef, the traditional fabric square of Ghardaïa *« is vast, it is rectangular in shape; the main axis of the square of Ghardaïa is oriented North-West/South-East, its sides measuring 75 meters and 44 meters respectively»* (B. Benyoucef , 1999). While the traditional public squares are varied, namely, the market square, also the mosque square, and the multipurpose square (mosque, market).

## 3. Public Square in the Contemporary Algerian City.

### 3.1 Meaning and Contextualization.

Arab-Muslim city, has not been able to keep its urban origin hidden, characterized by an intimacy and a respect of a strong interpenetration between private and public.

Immediately after colonization, the urban landscape of these cities changed radically, and the import of new modes of occupation of space, by the emergence of new type of public spaces, linked to the need for a mark of colonial occupation, on the one hand, and by needs related to the introduction of the car in the urban landscape, on the other,

*«The public spaces were thus transposed from one side of the Mediterranean to the other without any real reflection on the alignment of the shape of city with the specific social expectations of the Maghreb world. »* (N. Dris, 2002).

This is the case of the Algerian cities, during colonial period (1830/1962) the constructions and realization of a large number of cities, all reflecting a general outline of the colonial city, the N-S, E-O cross pattern dominates in the totality of the plans, a cross organization in the centre of which is the central square bringing together the main equipment. According to Vacher, colonial city *«is presented as follows, a chessboard of rectilinear streets, which*

*define a series of islets, almost always square. In the centre of the city, by removing or reducing some islets, a square is opened on to which are placed the most important buildings: The church, the town hall and the houses of the richest merchants and settlers »* (H. Vacher , 1997).

Because of this, the extensions of colonial cities were on the basis of the orthogonal plan, with wide boulevards, urban squares, which adapt to Western uses.

In fact, Picard in his description of colonial city evokes how public squares were planned, *«There are no cities without squares. The constant concern of engineering engineers is to realize public places varied and large dimensions. These places are connected to each other and allow the distribution* of *facilities according to the rules of social life in these cities. They are the headquarters of the main public facilities, in the center the music kiosk and on their edge the coffees, places where colonial life is built. For inland cities, located in strategic locations, the main square located at the intersection of the two major north-south and east-west streets is located on the highest point. »* (M. Carmona, C. Magalhães, L. Hammond, 2008). After independence, the metamorphosis of Algerian cities was accentuated, import of western models of urbanization.

These policies have propagated an urbanism poorly adapted to local lifestyles, a quantity-conscious urbanism engaged after independence, and implemented by foreign design firms, has generated large free spaces between building.

Poorly designed and maintained, marking the disappearance of public spaces.

As a result Algeria, like the countries of Maghreb, urban landscape is characterized by an amalgam of adjustment of urban tissues from different periods that have marked the history of cities in Algeria, «the Algerian urban landscape is characterized by a mosaic of fabrics, typologies generated by superposition and juxtapositions of diverse urban productions. Most important ones are the Ottoman settlements and then those of the French colonization» (A. Bitam, 2011).

Today, this morphological variety of public places in Algeria is also observable on the variety of words used to design what is considered as a public place, most often relate to the meaning of the great extended **Rahba**, or **Tahtaha** and **Batha** which means to expand and grow.

## 4. Objective and approach

This work aims to shed light on the question of the qualities of public places and their use for an Algerian context. For this purpose, we conducted a field study with direct observation.

This visual observation technique is a good way to account for the qualities of the experience of public places, and to identify some of the quality aspects.

Therefore, the question of the quality of public places and their use are linked to those of urban environments, a comprehensive approach to public spaces based on the methodology of William H. Whyte (1980) is necessary. This approach allows describing and deciphering with finesse how public places are composed and their uses, such a study is interested in the dimensions (social, spatial, sensitive), *«Their configuration can make some small public spaces attractive and others totally unusual. »* (W. Whyte, 1980).

The observation technique was used in the first phase of the research as a data collection tool.

Then, in a second step to complement our observations, we made a series of photographs, to better grasp the experience of our public places.

With the help of this series of photographs, we have carried out a recurring observation; the first step in the method is to draw up a series of photos and the presentations to specialists from different disciplines, users and inhabitants.

The interview last from one hour and a half to three hours, and they can be individual or collective and also can be repeated with the same person several times; *« The advantage of this technique (...) can be reused: you can project the film when the speech is exhausted.*

*The words are then refined, as others this method allows to cross very contrasting disciplinary views: make speak on a same sequence a psychoanalyst, a filmmaker, an artist, a landscape designer (...) or a group of inhabitants or users of the place.»(*P. Amphoux, 2003).

In order to describe how peoples use and consume the public place, estimate and record the qualities of the experience. The purpose of combining the two observation techniques is to evaluate the aspects that most express the qualities of the lived experience of the public places analyzed, and to draw guidelines for the design of future more lively and animated places.

The observations and visits were scheduled over a year, with weekdays, Sunday and Tuesday, and weekend days, Friday and Saturday chosen to capture the overall experience of the places. As for the interviews related to the recurring

observation, a presentation was made for the three public places, with 7 slides, for each of the 20 minutes of discussion.

The interviews lasted on average two hours, the projection of the slides using a data-show; the interviews are collective in a workshop within the university, bringing together students in master2 architecture, a second scheduled collective interview with teachers of different disciplines. The reports allowed us to objectify our assumptions of departure; the assumptions are in fact the quality indicators of public places.

### 4.1. Presentation of selected research fields.

The observation targeted three public squares in Biskra city:

1. ***Ibn Badis*** Square with the Boulevard Mohamed Seddik Ben Yahia;
2. ***El Houria*** square,
3. ***El Dhalaa*** square,

All the squares are located in the centre of the city of Biskra; the choice of these three places was made according to the criteria of conviviality, the animation and feasibility of in situ observations.

***Ibn Badis*** **Square with the Boulevard Mohamed Seddik Ben Yahia**

Commonly known by Ben Badis, this square is located in the in the center of the West zone of the city. It is named after the famous scholar Ibn Badis. This square, built since the first urban extensions of the city of Biskra in the 70s and almost of trapezoidal shape (92 meters, by 62 and 44 meters), is located between the neighborhood of collective housing cited of 726 dwellings and semi-collective housing .

Today, the place of independence is surrounded by buildings of varying heights from R+2 to R+4, the primary school, and middle school, as well as the polyclinic. The square is crossed by the ***Boulevard Mohamed Seddik Ben Yahia*** and which divides it into two lanes, one that leads to the ***thermal complex Hammam Salihine*** , and the other that descends towards the crossroads of the ***Tolga road*** and the ***hotel Maurice Laban***. It is a major mechanical track that crosses and structures the entire western zone and connects it to the city centre (Fig.2).



***Figure 2***. *Ibn Badis place & Mohmed Seddik ben Yahia Alleys Biskra.*



***Figure 3***. *Ibn Badis place, Mohmed Seddik ben Yahia Alleys Biskra.*



***Figure 4***. *Ibn Badis place Biskra.*

***El Hourria*** **square Biskra.**

A fluid and dynamic public square located in the

center of the city of Biskra on El Amir Abdelkader Boulevard.

The square we are interested in is adjacent to the house of culture Ahmed Réda Houhou, opposite the main post office, the Wilaya headquarters and city hall, as well as commercial premises, cafeteria and restaurants.

The square offers a pleasant setting for passers-by and users thanks to the presence of centuries-old trees bordering the square and good quality soil, (Figures 5 & 6).



***Figure 5**. El Hourria place Biskra.*



***Figure 6**. El Hourria place Biskra.*

**El Dhalaa square.**

An imposing public square named by the locals Dhalaa, known for its non-stop animations made of going-and-coming and meetings around the tables, adorning the terraces of the kiosks, renowned for the quality of refreshments they offer. This square, built in the colonial era, located between the Arab quarter city of workers and the French quarter the colonial checkerboard, opens to the small mountain that brings an original natural decor.

Today, Dhalaa-square is surrounded on various sides by individual residential buildings, shops and insurance services and airlines... etc (Fig.7& 8).



***Figure 7**. El Dhalaa place Biskra.*



***Figure 8a**. El Dhalaa place Biskra.*



***Figure 8b**. El Dhalaa place Biskra.*

## 5. Qualities of public places; Results of Observations.

Indeed, it was necessary to observe more closely to arrive at a good understanding and estimate the qualities of public places.

As a result, the qualities of our public spaces are social, spatial and sensory.

We have retained the following aspects; the presence of nature, the mix use and users, accessibility and sensory experience, all together can help to generate

public places that are convivial, animated and above all charged with meaning.

### 5.1. Quality public square: strong presence of nature.

Nature has a great influence on the attractiveness of places, because the three sites studied mark an important presence of vegetation and water and play a major role in welcoming users.
The main element that contributes to the attractiveness of visitors to these places is the water from the fountain and the water jets, as visitors and locals do not leave any opportunity to appreciate the freshness of its water.
Similarly, the aisles of the Focus tree and palm trees that line Ibn Badis Square and Mohamed Seddik ben Yahia Boulevard offer users' cool, shady, quiet and peaceful spaces, such as a garden open to the public, with a multitude of decorative trees dating back several years.
In addition, at ***El Houria*** square, vegetation is not only an element of comfort and well-being, but also a commodity that attracts any fan of decorative plants, the green windows open to the public; Meeting with users each year during the summer season(Figure9).



***Figure 9****: Social practices in warm climates.*

As a result, many studies have shown that the vegetation and water together provide a microclimate appreciated by users of our places, and offer comfortable public places.
The impact of vegetation on air and surface temperature and humidity has been widely proven, ( team ARTOPOS,1997) .
Vegetation also has a very important psychosocial impact and benefits on human mental health (J. Gehl, 2004). The key to promoting quality in our places and public spaces is above all a strong presence of nature, which constitutes a support for all social practices.

### 5.2. Quality public square: juxtaposition and superimposition of practices and uses, promoting the appropriation of places.

Our observations have revealed that the three public squares are, par excellence, places where you move, stop, stop for food and where you can also meet and meet, or shop... etc.
The ability to accommodate, under favorable conditions, a wide variety of practices is one of the quality parameters of these places «Poly functionality can be read on various registers at once: that of the functions themselves which coexist, overlap or succeed each other; that of their modalities of exercise whose diversity is sometimes very great» ( S. Susen, 2014). The diversity of uses in public places in our cities is observed on two levels, social practices and commercial practices.
This mix of uses is also the result of an appropriation of certain places; informal shops are one aspect of the appropriation. During exceptional events, such as religious holidays, holidays and the summer season, businesses change their vocation and new activities appear, a remarkable metamorphosis, during the month of Ramadan Cafes and restaurants open only in the evening, others take advantage of the day to sell products related to the consumption of the sacred month.
Promoting mixed uses, including shops, exceptional events and places for strolling, is a quality of our public places, for Michel Corajoud: «Apart from the fact that it is accessible to all, another characteristic of public space is that it must be poly-functional. »(M. Corajoud 1998). The preservation of versatility, in public places, through mixed uses, accessibility for all, juxtaposition of practices and overlapping of activities, are the key words for the generation of a public place of conviviality and quality (Fig.10).



***Figure 10****. Mixed use in the places studied.*

Source: Author, 2025

Given the climate of the city of Biskra is hot and dry type, we note that the vegetation and the presence of jets and water basin have a direct and very remarkable effect on the use of these different public places studied.

### 5.3. Quality public square: mixed users, a place for women's

This poly-functionality attracts users of all ages and genders, a crowd that itself attracts the crowd «People attracting people » ( H. Shaftoe,2008), the human being is social.

In this context, the mix of users is observable on two levels, the first is abolition with the tradition that our public spaces are mono sexual, that is to say, that exclusivity is for men, women do not have the right to use the outside. This reality is changing over time. With access to education and accessibility to work, women begin to have their place in public places, and break with logic; from in/woman and out/man, «Women have massively accessed the public space, traditionally masculine space and they have appropriated it (...).

There is more diversity in urban spaces, and the rules governing women's access to the outside have been relaxed and the prohibitions have largely been lifted. » (J. Gehl, 2004).The second level is intergenerational mixing; the idea of separating between different age groups, that is to say, some places or public places are only for young people and adolescents, and others are especially for old people, « Spaces have a sex, and for each gender, an age.....» ( S. Susen, 2014). Today, this «social zoning », does not fit into the new needs of our society; it is on the way out. The mix of users is a factor and an indicator of cohesion and social equity, to promote quality public places, we must not exclude any component of our society, women, men, young, old and children, everyone should have their place in public spaces, particularly, and in the city in general.

### 5.4. Quality public square: accessible place, lively place.

Indeed, the public places observed and analyzed in this research are characterized not only by direct pedestrian access, good accessibility to public transport, but also by the possibility of parking nearby. Instead of the large post, for example, the taxi station is located at the entrance to the square, and bus stops-bus stop station- a few meters.

Even for ***Ibn Badis*** square, the bus and taxi station is located on the outskirts of the square.

At the place of ***Dhalaa*** is accessible by all means of public transport, but also, the possibility to park in the parking lots that border the square, which gives ***El Houria*** place a good mechanical accessibility.

Paid parking or informal parking is a phenomenon related to the accessibility of the three public places studied, managed by young people who guarantee the safety of vehicles with a rate fixed according to the importance of the place and the time of year.

This phenomenon is considered to be illegal, the unemployed young people of the neighboring districts are looking for a way to earn money, they organize themselves in groups, each one dominates a certain sector, and this type of attitude is both unpleasant and pleasant for residents and visitors.

The car and the pedestrian mix in our places, there are few places where we separate between pedestrian and vehicles. Guaranteeing accessibility through the various means of public or private transport, and ensuring the proximity of car parks, are benchmarks for a success of our public places.

### 5.5. Quality public square: strong sensory experience , ink and identity.

Quality public space, strong sensory experience, ink and identity Pierre Von Meiss (1986) has already mentioned it, on the perception of the built environment: *«the aesthetic experiences of the environment are global and there are even situations where hearing, smell or tactile perceptions are much more intense than vision. »*(P. Von Meiss, 1986 & 2012).The sensory appreciation of public spaces cannot be reduced to that of forms and colors, that is to say a still-life, the noises, the smells, the movement of users make this perception more global. Indeed, during our observations of public places, as a user of the place, we experienced a sensory experience, specific to each of the public places.In the place, the main element that has marked us in terms of sensory quality is the sound of water flowing from the fountain, summer as winter the fountain does not stop. But this sound is faded by the noise generated by passers-by, who come to sip fresh water. During holidays and weekends, the noise of vehicles is more important, and we did not get to distinguish the low sound of the fountain (Fig.11).





***Figure 11***. *Water, special sensory footprint in hot and dry climates.*

From this experience, it can be said that the sensory quality can be very fragile, due to the contribution of human activities (motor vehicles and horns), which must be taken into account when arranging public places, a timid sound, water runoff, cannot survive with the noises of engines, a layout that favors pedestrian movements, will be highly adequate!
The sensory experience is not a quality apart, but it contributes strongly to interpret the places identity, preserving the richness and sensory specificity, contributes to a quality of our public places, Based not only on visual quality, but also by giving importance to other senses: smell, touch, hearing and taste.

## 6. Conclusions.

At the end of this article, we can deduce that the qualities of our public places are social, spatial and sensory.
We have retained the following aspects; the presence of nature, the mixed use and users, accessibility and sensory experience, all together can help to generate convivial public places, animated and above all charged with meaning.
The social dimension, support for all interventions on public places, to promote quality places, it is necessary to ensure a mix of uses and users.
Break with the sexual division of our places and ensure intergenerational mixing, contributes to have friendly spaces.
The attractiveness of our places is guaranteed by the proximity of shops and services; we have seen that consumer shops such as coffee terraces, street vendors, play a leading role in the animation and attractiveness of our places.
Juxtaposition and superimposition of commercial practices generate conviviality, and the flexibility of places whose hosting of exceptional events is also an important point for animation.
In addition, the spatial dimension; materialized in the arrangements of public places, the most important aspect is the strong presence of nature (green spaces, trees, water point...etc.), preserving nature and strengthening it contribute strongly to the users' well-being , which contributes to the production of quality public places.
The sensory dimension is the result of the combination of the two previous dimensions (social and spatial), practices and arrangements, contribute to strengthen the sensitivity of public places. Public places full of meaning, in turn, charge our senses and allow us to forge an imprint in the memory of users, which contributes to the inking of the identity of the place.
To deepen the use of the field of research, the first phase of investigation can be used for opinion polls through multimedia and social networks, in order to develop a list of indicators to better qualify public places. Future developments are possible.

## Author Statements:

- **Ethical approval:** The conducted research is not related to either human or animal use.
- **Conflict of interest:** The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper
- **Acknowledgement:** The authors received no specific funding for this work. The authors would like to thank the project team involved in the OuedSmar metro station excavation for their valuable support during data collection.
- **Author contributions:** The authors declare that they have equal right on this paper.
- **Funding information:** The authors declare that there is no funding to be acknowledged.
- **Data availability statement:** The raw monitoring data supporting the conclusions of this study are contained in confidential project reports and cannot be shared publicly. Processed datasets used for analysis are available from the corresponding author upon reasonable request.

## References

[1] A. Blobaum, & M. Hunecke(2005), Perceived danger in urban public space: the impacts of physical features and personal factors. Environment and Behavior, 37(4), 465-486. http://dx.doi.org/10.1177/0013916504269643

[2] A. Bitam (2011), L'héritage des tracés d'époque coloniale française en Algérie face au projet urbain, publié dans Projets de paysage.

[3] A. Raymond (1995), Ville musulmane, ville arabe : mythes orientaliste et recherches récentes, dans

Biget , J.-L., et Hervé, J.-C. (sous la direction de), Panoramas urbains. Situation de l'histoire des villes, Fontenay-aux-Roses, ENS Éditions.

[4] B. Benyoucef (1989), Le M'Zab espaces et sociétés, Ain M'lila, 1989.

[5] Carmona, M., C. Magalhães, & L. Hammond, (2008). Public space: the management dimension (1st ed., pp. 10). New York: Routledge Press

[6] CERTU (2005), accessibilité des espaces publics urbains, outils d'évaluation ergonomique, 2005.

[7] Equipe ARTOPOS (1997), Morphologie, végétale et microclimats urbains. Cas d'Aix-en-Provence et de Nîmes. Tome1, le contexte, analyse urbaine Plan urbain, Ministère de l'équipement, Paris, (1997).

[8] E. Wirth (1997), La vie privée en tant que dominante essentielle dans la ville de l'Orient islamique, in Naciri M. & Raymond A., Science sociales et phénomènes urbains dans le monde urbain, Fondation Al Saoud, Casablanca, 1997, p. 121-130.

[9] F. Ascher(2004), les nouveaux principes de l'urbanisme, Paris, L'Aube, 2004, p 96

[10] H. Shaftoe(2008), Convivial urban spaces, creating effective public places, London, EARTHSCAN, 2008.

[11] H. Shokry (2012), Islamic Urbanism and access regulation as a guide to the future: The case of Medieval Cairo, *Journal of engineering sciences, university of Assiut, Egypt.* Article 21, *Volume 40, No 3*, Mai et juin 2012, Page 943-958, DOI : *10.21608/JESAUN.2012.114428*.

[12] H. Vacher(1997), Projection coloniale et ville rationalisée, publication of the department of languages and intercultural studies, aalborg university, vol17,1997 ,p22.

. [13] I. Joseph(1990), la gestion des espaces publics, perspectives d'une consultation, dans Jean Remy (sous la direction de), espaces et société, n62-63, l'Harmattan(1990), p65-73.

[14] J. Anderson, Ruggeri, K., Steemers, K., & Huppert, F. (2017), Lively social space, well-being activity, and urban design: findings from a low-cost community-led public space intervention. Environment and Behavior,49(6), 685-716. http://dx.doi.org/10.1177/0013916516659108.

[15] J. Gehl, (2004), Public spaces, public life. Copenhagen: The Danish Architectural Press

[16] J.-Ph. Dind(2008), Principes de convivialité pour les espaces publics, Cahiers de l'IAU, Paris,2008.

[17] J. Bethemont (1996), Marc Cote, L'Algérie, espace et société. In: *Revue de géographie de Lyon*, vol. 71, n°1, 1996. *Risques et pollutions industriels et urbains*. p. 78.

[18] J. Gehl, (1996), *Life between buildings: using public space*, 3rd edition Copenhagen: Arkitektens Forlag.

[19] K. Moser Get Weiss(2003), espaces de vie, aspects de la relation homme-environnement, Armans Colin, Paris.

[20] K. Lynch, (1989), l'image de la cité, trad. M.F. Vénard et J.L. Vénard, Dunod, Paris.

[21] L. Adolphe & al. (2002),SAGA Cité, Vers un Système d'aide à la gestion des ambiances urbaines. GRECO, Rapport final MENRT/ Direction de la Technologie, 2002, 630p.

[22] L. Grésillon(2010), sentir paris bien être et matérialité des lieux, Edition Quae. Versailles, 2010.

[23] M. Corajoud (1998), Espaces publics, conflits d'usage, Les Carnets du paysage, n° 1,Actes Sud/ ENSP ,Arles/Versailles, 1998, p07.

[24] M. Carmona (2015), Re-theorizing contemporary public space: a new narrative and a new normative. Journal of Urbanism, 8(4), 373-405. http://dx.doi.org/10.1080/17549175.2014.909518.

[25] M. Carmona, Heath, T., Oc, T., & Tiesdell, S. (2003), Public places, urban spaces: the dimensions of urban design. Oxford: Architectural Press.

[26] N. Dris (2002), la ville mouvementée, espace public, centralité, mémoire urbaine à Alger , l'Harmattan, Paris.

[26] N. Abu-Dayyeh (2018), Public urban space: The linguistic turn. Cogent Arts & Humanities,5(1),1523515. http://dx.doi.org/10.1080/23311983.2018.1523515.

[26] P. Amphoux (2003), l'observation récurrente, une approche reconstructive de l'environnement construit, dans Moser, G.; Weiss, K., (sous la dir.de), Espaces de vie, aspects de la relation homme-environnement, Armand Colin, Paris, 2003,p227-245.

[26] P. Von Meiss (2012), De la forme au lieu + de la tectonique, une introduction à l'étude de l'architecture, presse polytechnique et universitaire de romandes, Lausanne, (1e éd. 1986 3e éd. 2012).

[26] R. Ewing (2013) , O. Clement, measuring urban design, metrics for livable places, Island press Washington, 2013.

[26] S. Susen (2014), the Place of Space in Social and Cultural Theory.In: A Elliott (Ed.), Routledge Handbook of Social and Cultural Theory. (pp. 333-357). Abingdon, UK: Routledge . ISBN 9780415696098.

[26] S. Toumi et R. Vidal (2011), Espaces publics et mixité culturelle, pour un renouvellement du tourisme tunisien, Projets de paysage, n° 06, 2011.

[26] W. Guedoudj, A. Ghenouchi, & J. Y. Toussaint, (2020), urban attractiveness in public squares: the mutual influence of the urban environment and the social activities in Batna. urbe. Revista Brasileira de Gestão

[27] W. Whyte (1980), the Social Life of Small Urban Spaces, DC: The Conservation Foundation, Washington, 1980.