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Dolna 17, Warsaw,
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+48 226 0 227 03
editorial_office@rsglobal.pl

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URBAN FORM AND SOCIAL PRACTICES IN THREE NEIGHBOR-HOODS OF COLLECTIVE HOUSING IN THE CITY OF OUM EL BOUAGHI, ALGERIA

Nadjar Sarra Ismahane
Ph.D. Student, Laboratory of Natural Resources and Sensitive Environments (RNAMS), Institute of Management of Urban Techniques, University of Larbi Ben M'hidi Oum El Bouaghi, Algeria
ORCID ID: 0009-0004-4643-1890

Mazouz Said
Laboratory of evaluation the quality of use in architecture and the built environment (LEQuArEB), department of architecture, University of Larbi Ben M'hidi Oum El Bouaghi, Algeria

ABSTRACT

The aim of this article is to study the influence of urban form in different collective housing programs across three neighborhoods in the city of Oum El Bouaghi on user practices and social interactions. To understand the complex relationships and socio-spatial structure of neighborhoods, it is important to use mixed methods. This research is based on a combi-nation of two approaches: qualitative and quantitative. The latter is based on the space syn-tax method, using dedicated software called DepthMap©, specifically applying the visibility graph analysis (VGA). The qualitative approach is based on in-situ observation (static snap-shot method). The observation data from three neighborhoods were collected and synthesized on a map to superimpose them on that of the VGA. The results obtained from correlating observed social activities with syntactic measures show that urban form affects the use of outdoor spaces and can be considered a determining factor in social practices and interactions.

KEYWORDS

Urban Form, Social Practices, Collective Housing, Oum El Bouaghi, Space Syntax

CITATION

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INTRODUCTION:

After independence and in the face of excessive population growth, decision-makers chose the massive construction of buildings on the outskirts of cities to address the growing housing shortage in most Algerian cities. The large projects program was seen as an adequate solution (Bendjedidi & al., 2018). This program gave birth to thousands of buildings, which were implemented according to the standards of modernity and comfort. This new approach was seen as the fastest and most efficient way of producing housing to ensure a better quality of life (Zerouati & Bellal, 2020).

The Algerian version of the large ensembles is characterized by functional simplicity, monotony and standardization, which have ended up affecting the identity of places by neglecting their spirit and inducing a repetitive composition without taking into account the environmental, climatic and socio-cultural conditions of the place (Zerouati & Bellal, 2020). This situation led to a new organization of the city and created a break with the existing urban fabric (Naceur & Farhi, 2003). As mentioned by Frédéric Winter (2000), "*These neighborhoods of large ensembles have been trapped by social practices that have evolved into a static urban form, fixed in an unsuitable model that has become obsolete because it probably bears less than others the*

crisis and social conflict within it. These large groups have, in fact, been subjected to pressure, a shearing effect between a movement of social segmentations, withdrawal on increasingly heterogeneous cultural identities, and a mode of mass living based on normative and formal egalitarianism."

Like all Algerian cities, the city of Oum El Bouaghi has experienced multiple collective housing programs. From the ZHUN programs to the most recent formulas (L.S.P.- L.P.A…), community housing districts have been built in the city, they consist of a layout of several block units in various urban forms, creating different outdoor spaces intended to be scenes of interaction, social practices and socialization between the inhabitants. (Zerouati, & Bellal, 2020)

The outdoor space has an important role to play in terms of social interaction and behavior through its organization, often embodying social relationships (Gehl, 1987). As a result of the bidirectional interaction between the user and the space, while human behaviors change and transform the space, the latter shapes the behaviors of the individuals who use it with its physical characteristics. The location of these spaces, how they connect with other spaces, and the physical characteristics of space can develop patterns of movement in humans that will support or prevent their interactions (Hillier, 2007). In this sense, the urban form can be planned in such a way as to provide for hinder the realization of social interaction as a spatial behavior mode (Siramkaya & Aydın, 2017).

To clarify the effect of urban form on the quality of social life and the use of space by users, several urban studies (Hillier & al., (1993), Gehl (1987), Dawson (2003), Ferguson (2007), Legeby (2013), Can & Heath (2015), Siramkaya, & Aydın, (2017), Yeganeh & Kamalizadeh, (2018), Koohsari et al.,(2019), Askarizad & Safari (2020) Gümüş & Erdönmez, (2021), indicated that the shape of the outdoor space between the blocks and the way a building is laid out on its site significantly affect the use and quality of open spaces, as Gehl (1987) states, "*Life between buildings is not limited to pedestrian traffic or recreational or social activities. Life between buildings encompasses the full spectrum of activities, which combine to make common spaces in cities, and residential areas, meaningful and attractive*."

In the same context, many Algerian studies have been carried out, we will cite the latest publications of researchers such as, Bouarroudj & Aiche, (2017) Hima & al. (2018), Bendjedidi & al. (2018), Zerouati, & Bellal (2020), Mahfoud & al. (2022), Salamani & al. (2022). However, there is no study that illustrates the impact of the urban form of collective housing of the city of Oum El Bouaghi on the practices and social interactions of users. Therefore, the main objective sought through this article is to study the influence of urban forms of different collective housing programs of three neighborhoods on the practices and social interactions of these users in the aforementioned city.

THEORETICAL FRAMEWORK:

Urban form, social practices

The term urban form was introduced in the 1970s following Muratori's typological study of Venice (1959) and the typo-morphological study conducted by Rossi (Mahaya, 2014). There are multiple definitions of urban form depending on the scale being considered. It can range from the global configuration of the city to the block level (Raynaud, 2005). Burgel wrote: "entering the universe of urban forms means entering a fuzzy world, where material constructions, concrete practices, inhabitants' representations, and designers' ideologies coexist" (Mahaya, 2014). Urban form also refers to all the physical and spatial characteristics that constitute the urban fabric of a city or urbanized territory. It is the three-dimensional manifestation of the spatial organization of human settlements, resulting from the complex interaction between different morphological elements (Raynaud, 2005).

Social practices are relatively stable ways of doing, acting, and thinking that are shared by a group of individuals within a given social space. They constitute the recurring and significant actions through which individuals construct and maintain social life. Social practices, like urban spaces, are in perpetual evolution, and daily experience leads everyone to witness the transformations taking place before their eyes and in which they participate.

Urban form exerts a determining influence on social practices through several mechanisms. First, spatial configuration acts as a framework that guides behaviors by creating opportunities or constraints: for example, a well-dimensioned central square with seating naturally promotes gatherings and meetings, while a poorly connected residual space tends to remain underused. Second, the arrangement of spaces implicitly suggests certain uses through street furniture, ground treatment, or lighting, thus, benches arranged face-to-face encourage discussion, soft grounds invite play, wide and shaded paths encourage walking. Third, the quality of places, whether functional (comfort, accessibility, safety) or sensory (ambiances, materials, vegetation),

strongly conditions their appropriation by inhabitants: a well-maintained public space that is pleasant and adapted to local needs will be more easily invested than a degraded or unsuitable place. These three dimensions configuration, arrangement, and quality combine to shape a "field of possibilities" which, without being totally deterministic, significantly influences the nature and intensity of social practices that develop there.

METHODOLOGY:

The research methodology adopted is based on the combination of two approaches: space syntax using VGA and observation using the static snapshot method. Space syntax is a set of tools and theories developed to describe, explain, and analyze the relationships between elements and sub-elements that constitute a system (Dawson, 2003). It is based on two ideas that reflect both the objectivity of space and our intuitive engagement with it (Hillier, 2005). the urban environment is understood as a connected and unified space where each point is linked to another. The spaces of the method are defined and understood as voids (streets, squares, etc.) between walls, fences, and other obstacles that limit pedestrian circulation and/or the visual field (Khodabakhshi & al. 2016).

The methodological framework of space syntax is based on the idea that spatial morphology influences the distribution of space usage, and that the resulting dynamics, in turn, shape social interactions, uses, and occupations that develop within these spaces (Quentin, 2009). In other words, this method aims to interpret the relationships between social dynamics and architecture, between a given human group and its built environment. The techniques and measurements of space syntax allow for the anticipation of certain social behaviors, organization of the spatial system layout, control of accessibility, management of flows, and enhancement of visibility (Derya Arslan & Köken. 2016).

Visibility graph analysis (VGA):

this technique, based on Benedikt's isovists (Beck & al, 2009), analyzes all isovists within a spatial system to provide a more efficient description of the spatial characteristics of environments. Using DepthMap software developed by Turner (Turner,2001), this analysis characterizes the syntactic properties of urban spaces through color schemes, illustrating the perceptual qualities of a space or showing the movement and interactions of users in visible spaces (Lazaridou, 2013). It also offers a description of space from the internal perspective of individuals as they perceive, interact with, and move through it (Hillier, 2007). This technique introduces additional measures, such as connectivity, integration and clustering coefficient.

- **Connectivity** represents the number of connections a space has with other adjacent spaces (Jiang & al, 2000). It is one of the key measures in the topological analysis of a given space (Mahmoud & Omar, 2015).
- **Integration** measures the number of steps and changes required to reach one space from another within the system. This measure reflects the relationship of a party to the whole in terms of spatial accessibility and integration or segregation (Rolim & al. 2017). Depth and accessibility are important crucial in assessing integration, with spaces located deeper within a system having lower integration values (Hillier & Hanson, 1984). Integration serves as the most reliable predictor of pedestrian movement and usage patterns in urban spaces (Hillier, 1998). Notably, people can intuitively understand integrated spaces even without familiarity with the broader area (Wang, 2009). Research consistently demonstrates that highly integrated spaces strongly correlate with the qualities of attendance, implantation of socioeconomic activity, and urbanity. Integration values allow spaces to be ranked on a spectrum from highly integrated to highly segregated, with these measurements closely reflecting patterns of social regrouping and commercial activity (Zerouati, & Bellal, 2020).
- **The visual clustering coefficient** is a local measure that evaluates the proportion of inter-visible space in the vicinity of a given point. This metric helps identify potential fields of social interaction and static activity within space (Salat & al. 2012).

This analytical technique enables measurement of both local and global spatial characteristics within the built environment. According to Turner (2001), graph representations effectively demonstrate how spatial structure influences social dynamics in architectural spaces. This conclusion stems from their comparison of spatial metrics at both local and global properties against observed patterns of movement and space utilization.

Static snapshot survey:

The second phase of the analysis is a field survey, in order to gather information on the actual use of space through the observation method known as the static snapshot. It is based on the survey of activities observed on the site according to the age groups of users (adult, teenage, child and elderly). Observed activities include standing, sitting, moving and interacting or not. In a time, span of 5 minutes (the first 5 minutes of

each two-hour time slot), from 9am to 5pm. For two days (one working day: Sunday, and one weekend day: Saturday). These activities were determined based on a preliminary observation of the neighborhood. These maps will make it possible to assess the intensity and mapping of uses within neighborhoods and to superimpose them later on the graphs of the different syntactic measures (Vaughan, 2001).

Each activity is represented on the map with a different color, and each category of users takes a different symbol. The observation was carried out every Saturday and Sunday, 18-19 January 2020 for the first site, 08-09 February 2020 for the second site, 29 February and 1 March 2020 for the third site. The survey was conducted under favorable climatic conditions with temperatures varying between 11° and 21°.

User category	**Types of activities**
Child ★	Sitting position ▬
Teenage ●	Standing position ▬
Adult ■	Moving →
Elderly ▲	Interacting ⬭

Fig. 1: Snapshot observation symbolization. Source: Zerouati, & Bellal, 2020

CASE STUDY:

Three collective housing neighborhoods were selected, each representing a part of the collective housing stock in the city of Oum El Bouaghi. The case studies were chosen based on the diversity of urban forms found across the three neighborhoods. Sites 01 and 02 are represent an older generation of collective housing, while site 03 illustrates the newer generation of collective housing quarters in the city. This comparison allows for an analysis of the impact of urban form over time.

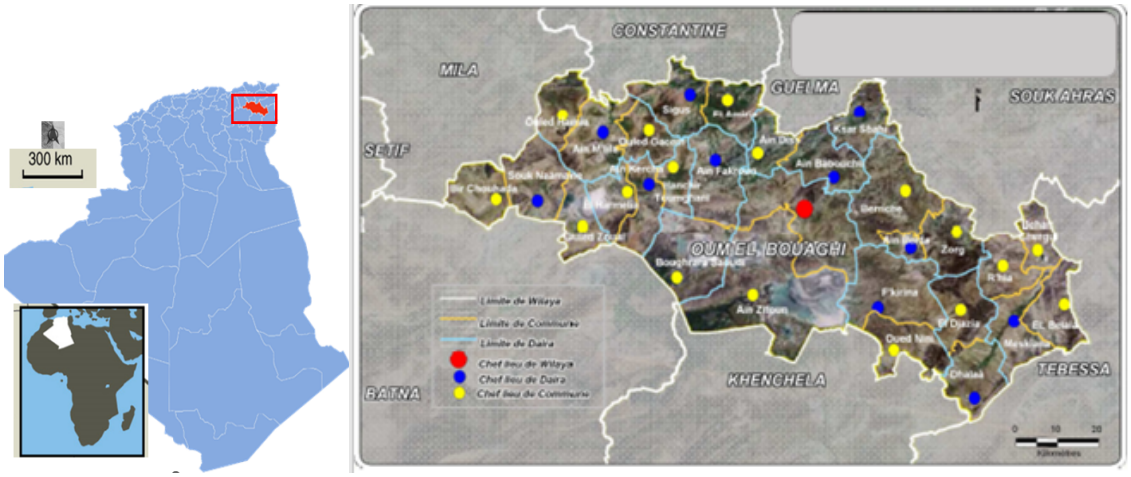

Fig. 2: Location of Oum El Bouaghi. Source: Edited from Google Maps by authors, 2020

The city of Oum El Bouaghi occupies a privileged place on the various roads of the cities of the east. It is the meeting point between Constantine, Guelma, Souk-Ahras and the cities of southern Khenchela, Tebessa and Batna. It is located 500 kilometers from Algiers (capital of Algeria). The following sections provide a brief description of the selected case studies.

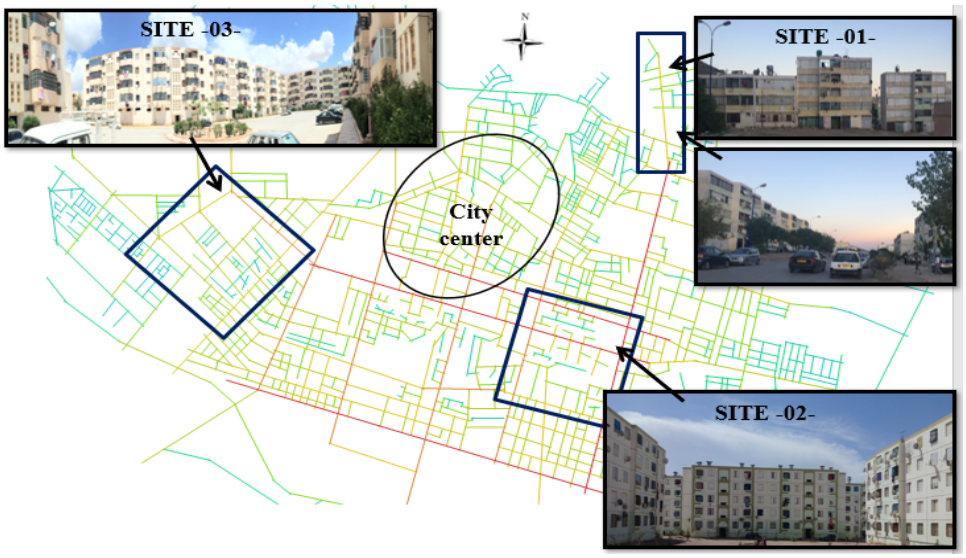

Fig. 3: The location of three sites in relation to the center of the city of Oum El Bouaghi (Source: Authors, 2020).

Site -01- : ZHUN Ennasr 1000 logts:

The New Urban Habitat Zones (ZHUN) 1000 logts was primarily designed to meet a substantial and urgent housing demand during a time of crisis. This large ensemble represents the northeastern extension of the city of Oum El Bouaghi. Constructed in 1983 by the Lyon-based company Pitance. ZHUN Ennasr is one of the most important residential areas in the city.

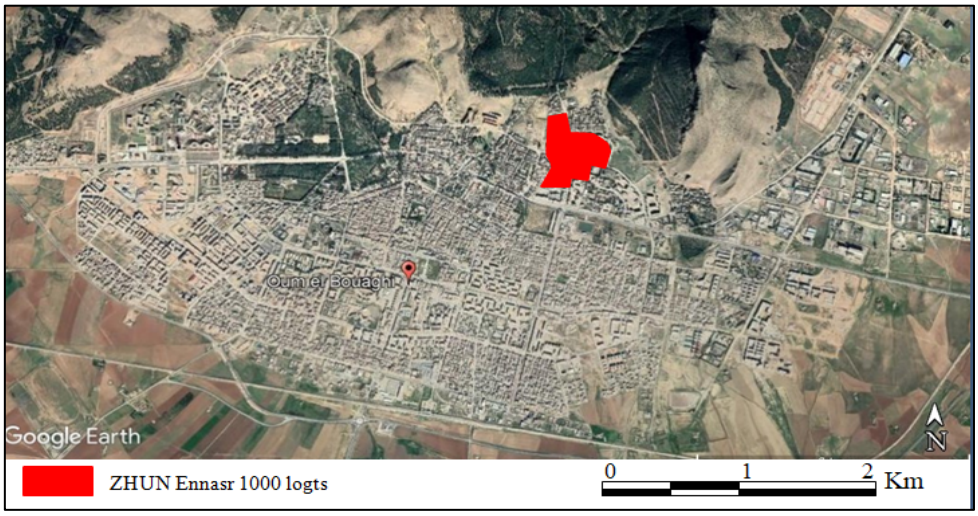

Fig. 4: location of ZHUN Ennasr 1000 logts - SITE 01- Source: Google Earth.

The built environment of the ZHUN is represented by the implantation and repetition of the constructions according to a single cell model that generates a feeling of monotony, most of the buildings have a level of R+4 (a single building of R+2 and another of R+3). Some buildings are organized as a group, creating semi-open spaces, or semi-public spaces that allow to have privacy, they are connected to the public space (streets, squares...), by pedestrian alleys.

Fig. 5: Type of residential buildings at ZHUN

With the exception of the basic necessities that occupy the ground floor of the residential buildings, we note the following equipment at the study area: three primary schools, a mosque, a police center, a polyclinic, a medical center, annexes of the Algerian water company and the communal people's assembly, a middle school, cinema room, a nursery.

Site -02- :(includes 1298 apartment)

The second case study is located south of the city of Oum El Bouaghi, consisting of two groups, the first is the city El Alouane while the second is a part of the ZHUN Moustafa Ben Boulaid. who is one of the most important cities in the city. Erected in the 1980s, it belongs to the time of the use of heavy prefabrication. The ZHUN of Moustafa Ben Boulaid is composed of three zones, the total housing of the three zones is 1498 apartment, with 252 commercial premises. For our case study, we chose zone 02 and zone 03, which are characterized by a more open urban form than the ZHUN of the previous example. The study area covers an area of 25 ha.

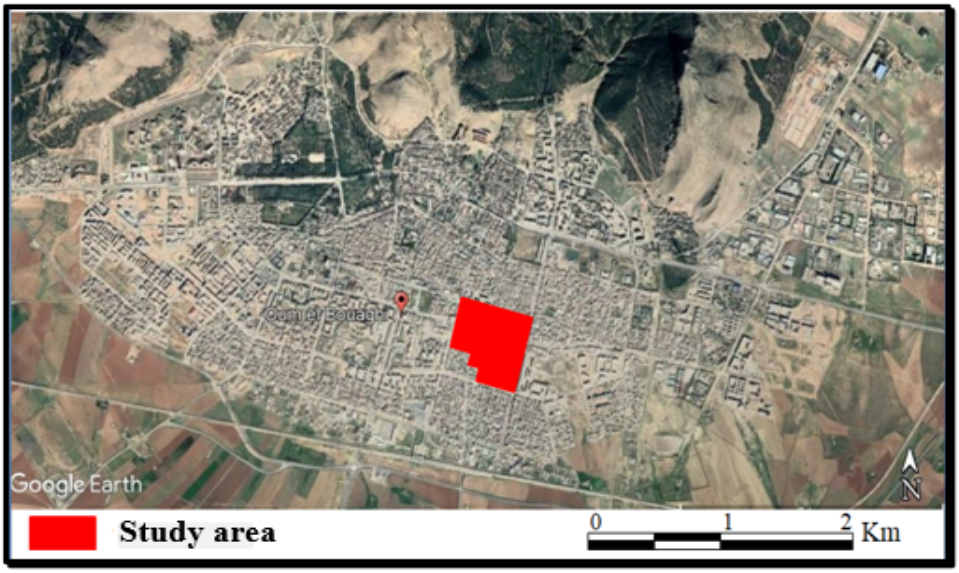

Fig.6: location of - SITE 02 - Source: Google Earth.

With the exception of the basic necessities that occupy the ground floor of the residential buildings, we note the following equipment at the study area: three primary schools, a university city, a middle school and a post office.

Fig.7: Type of residential buildings at SITE 02

Site -03- : (includes 1574 apartment)

The site -03- was chosen to represent the new generation of housing programs at the city of Oum El Bouaghi. Of which 1384 logts are of the LSP type (participatory social housing), and 190 logts are of the public rental type. It is characterized by different urban forms from two previous examples. In which outdoor spaces are more closed. This neighborhood is located in the south-east of the city of Oum El Bouaghi. Representing part of new urban pole MAKOMADES. It spreads over an area of 29ha.

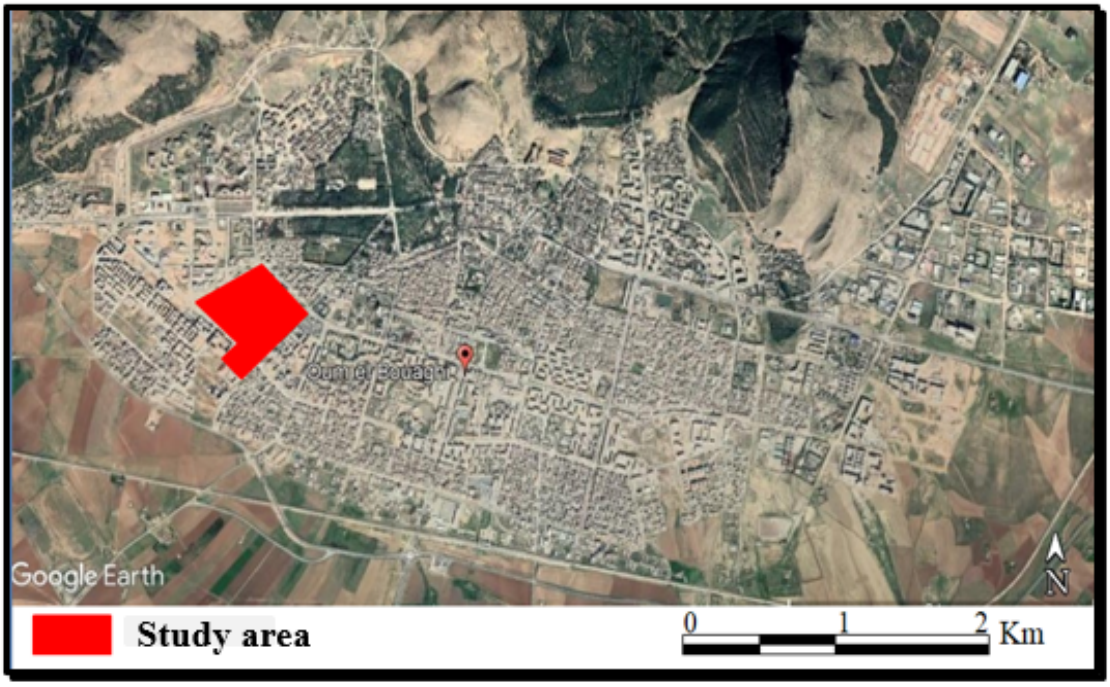

Fig. 8: location of - SITE 03- Source: Google Earth.

The ground floor of most residential buildings is occupied by basic shops, liberal functions and some training institutes. We also note, at site-03-, the following equipment: a high school, a department of architecture of urbanism and construction, a tax department, a polyclinic, urban security, a local radio center, a sports complex, a local market (not operated), and other equipment in progress.

Fig. 9: Type of residential buildings at SITE 03

RESULTS AND DISCUSSION.

Visibility graphs –VGA-:

Integration, connectivity, visual clustering coefficient and intelligibility are the syntactic measures studied and presented below. For the readability of graphs, spaces with maximum values are represented by the color red. The color degradation varies from red to orange and yellow, then green, and finally blue representing the low and minimum values. (Zerouati, & Bellal, 2020). The VGA analysis allowed us to evaluate the properties and characteristics of the neighborhoods from a visual point of view, in order to emerge some conclusions on the way of use of space.

Connectivity:

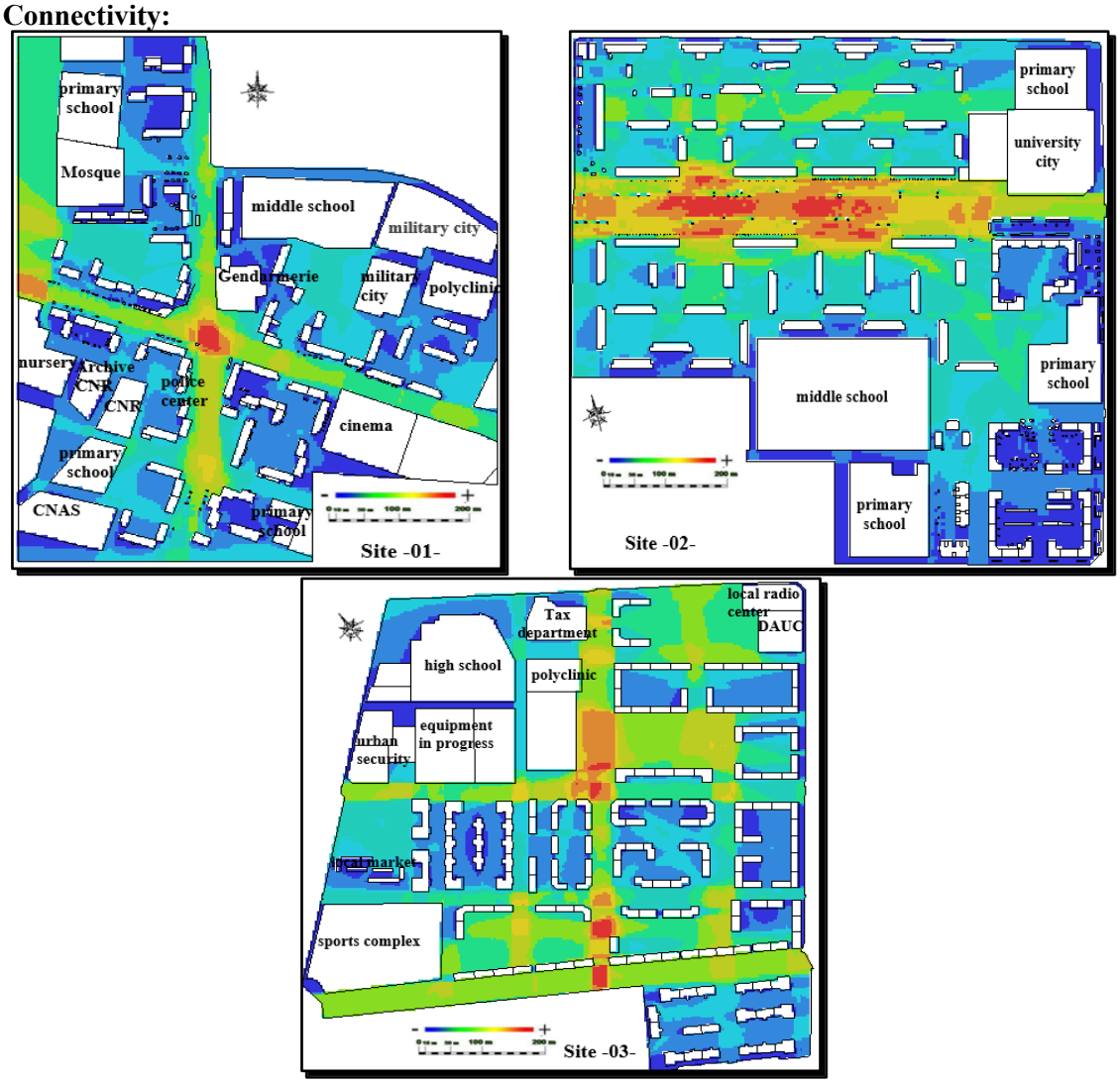

Fig. 10: connectivity graphs of the three case studies. Source: authors

The connectivity graph of the VGA analysis of the three quarters indicates that, in each example, spaces with the highest connectivity values are the most accessible from various directions. These spaces generally have a wider visual field and are therefore more easily perceived by users of three neighborhoods. Consequently, they are expected to be the most frequented and used preferred spaces.

In contrast, the least connected spaces are typically located between buildings, forming almost closed courtyards that do not connect to the broader neighborhood (these areas lack a direct relationship with the neighborhood as a whole). Similarly, spaces located at the neighborhood's edges and near certain equipment also exhibit low connectivity values compared to the rest (Fig. 10).

Integration:

The integration graph of three case studies reveals that the highest integration values are found at intersections along various traffic axes, which appear strategic due to their openness to multiple main roads and significant spaces. This finding highlights their considerable accessibility and predisposition to movement, mainly attributed to the width and length of these boulevards.

Fig.11: Integration graphs of the three case studies. Source: authors

For site -02-, the integration graph shows important values across most of the city. This primarily due to the openness created by the layout and shapes of the buildings. Spaces with average integration values correspond to areas between buildings, where there is some openness in the intermediate space. In contrast, low integration values are observed in spaces near certain equipment and between residential buildings with

U and L shaped configurations. In summary, the more enclosed the urban form, the lower the integration values tend to be (Fig. 11).

Visual clustering coefficient:

According to the visibility graphs of the visual clustering coefficient for the three case studies, the spaces most conducive to the social grouping are those that are the least integrated and least connected.

Fig. 12: Visual clustering coefficient graphs of the three case studies. Source : authors.

High clustering coefficient values are observed near the fence walls surrounding equipment in all three sites, as well as at the interior corners of U and L shaped residential buildings. The more enclosed a space is by surrounding buildings, the higher its clustering coefficient.

Average to low values appear along the traffic lanes, with the exception of a boulevard on site -03- that runs from northwest to southeast, displaying notably high values (Fig. 12).

Intelligibility:

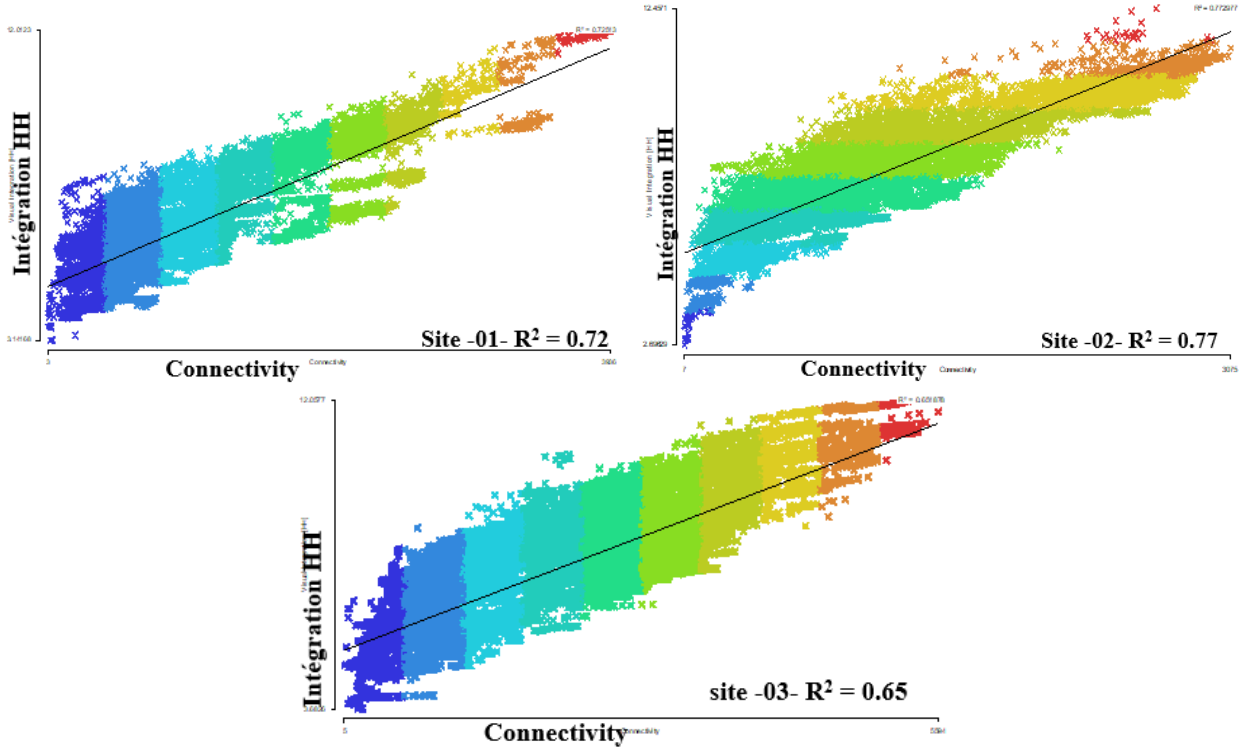

Fig. 13: Intelligibility graphs of the three case studies. Source: authors.

The intelligibility of an urban system refers to the degree of correlation between the integration and connectivity properties of each line within the system. This correlation helps determine how easily a person in a local position can understand the overall spatial structure (Al-Sayed & al. 2018). According to Hillier, an intelligible system enables people to navigate a complex space based on the relationship between local and global spatial properties (Rolim & al. 2017).

The intelligibility graphs of sites -01- and 02- indicate a strong correlation between connectivity and integration, with coefficient of determination R^2 equal to 0.72 and 0.77 respectively. This high correlation is explained by the similar distribution patterns observed in the integration and the connectivity graphs. In contrast, the intelligibility graph of site-03- shows a coefficient of determination R^2 of a value of 0.65. Despite this lower value, all three systems can be considered intelligible, easily navigable and conducive to movement.

The confrontation of space syntax results and observation results:

In this article, we chose to present the results of the observations conducted at 11am duo to the high flow of movement and the intense social interactions observed at this time on both weekdays. The reading of the three graphs of the case studies shows that the most important flow of movement and social interactions in outdoor spaces occur in areas with low, average and high connectivity and integration values on both survey days. Spaces with the highest values, which attract a wide range of activities for all age categories, are situated along the main circulation axes. These areas are characterized by accessibility from various directions and broader visual field.

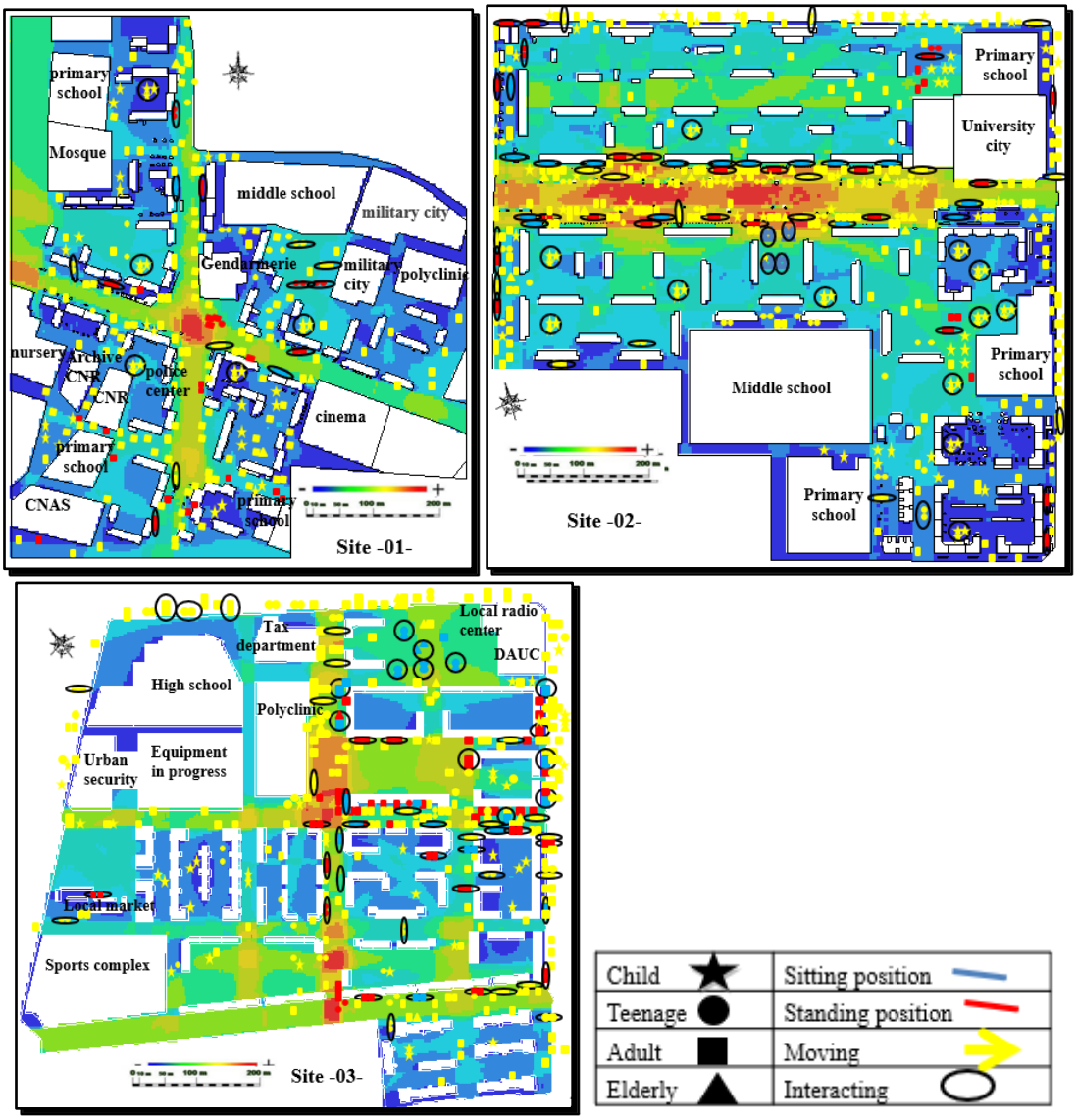

Fig. 14: superposition of connectivity results and snapshot results (Sunday) of the three case studies. Source: authors 2020.

In the first case study (site -01-), the high levels of movement and social interactions observed on both survey days are concentrated along the two main circulation axes, which feature a diversity of commercial activities. Additionally, high interaction rates are noted near certain equipment, particularly educational institutions, primarily on Sunday with children and adults. Interactions are also observed at block entrances, often involving teenagers. (fig.14 & 15)

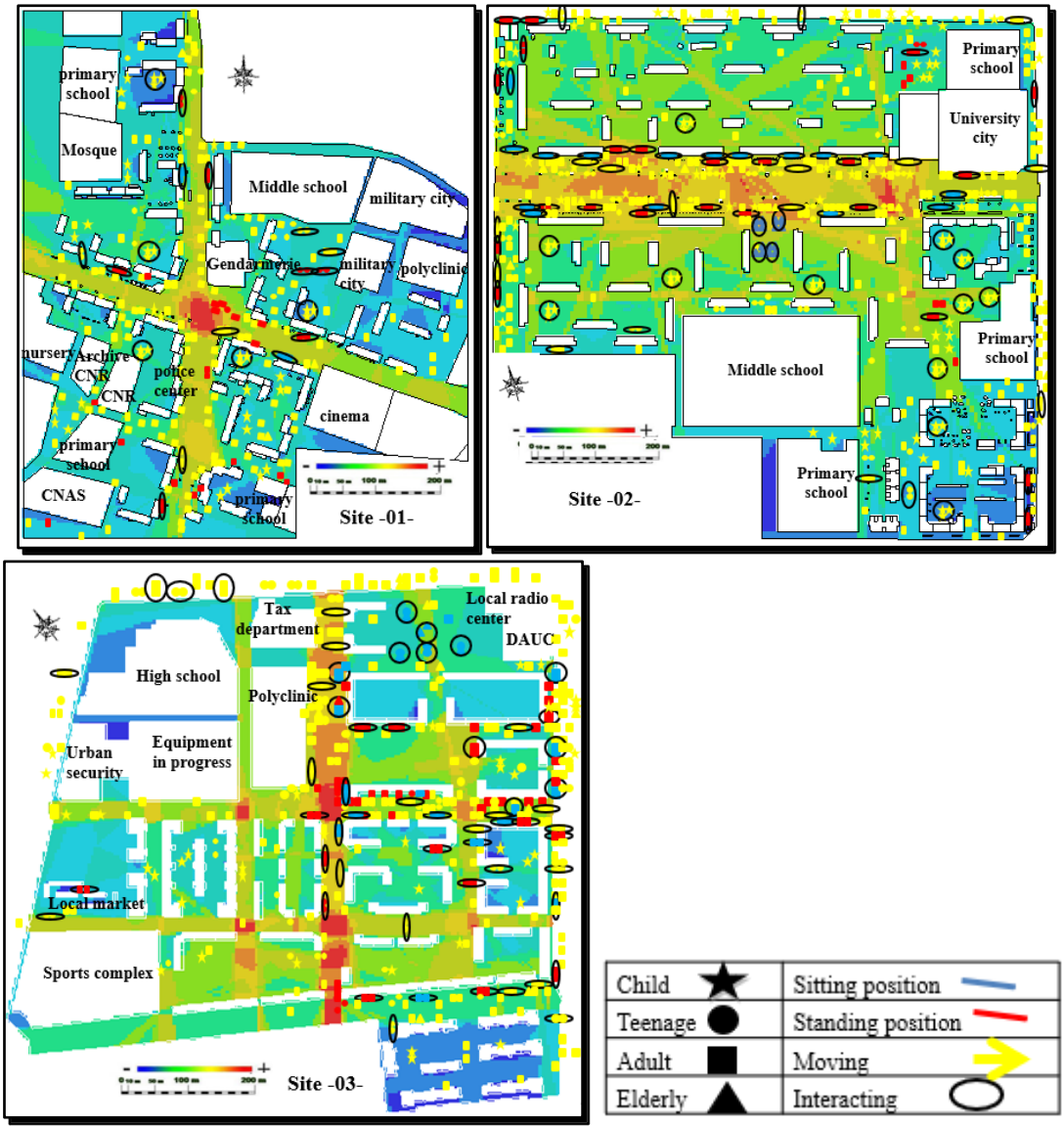

Fig. 15: superposition of integration results and snapshot results (Sunday) of the three case studies. Source: authors 2020.

In the second site, spaces with high connectivity and integration values are the most active areas, supporting a variety of activities and movement on both survey days. These spaces are characterized by a high concentration of commercial premises and liberal functions. (fig.14 & 15)

On the working day of the week (Sunday), movements rates are higher compared to Saturday, with interactions occurring even in areas with lower connectivity values, primarily among children and adults. These spaces are located near educational equipment (primary schools, middle school). On the weekend day (Saturday), children and teenagers are often seen playing and socializing between residential blocks and in parking areas. (fig.17 & 18)

Fig. 16: superposition of clustering coefficient results and snapshot results (Sunday) of the three case studies. Source: authors 2020.

In the third site, most activities take place on the right side on both days. This area is characterized by a high density of residentials buildings, commerce, liberal functions, bus stops and taxi stands, and a public square. Despite a range of connectivity and integration values (low, medium, and high), these spaces remain active and socially vibrant. In contrast, spaces on the left side, which have high and medium connectivity and integration values and considerable spatial importance, show low usage and limited social activity on both survey days. (fig.14 & 15)

On the weekend (Saturday), children play and discuss between residential blocks and in parking areas with low connectivity but medium to high integration values. The left side of the site, by comparison, has numerous equipment enclosed by blank walls, as well as equipment still under construction, making these spaces visually inaccessible and hindering physical accessibility to outdoor areas. This side also lacks commercial establishments, liberal functions, and relaxation areas, which limits its appeal for social interaction. (fig.17 & 18)

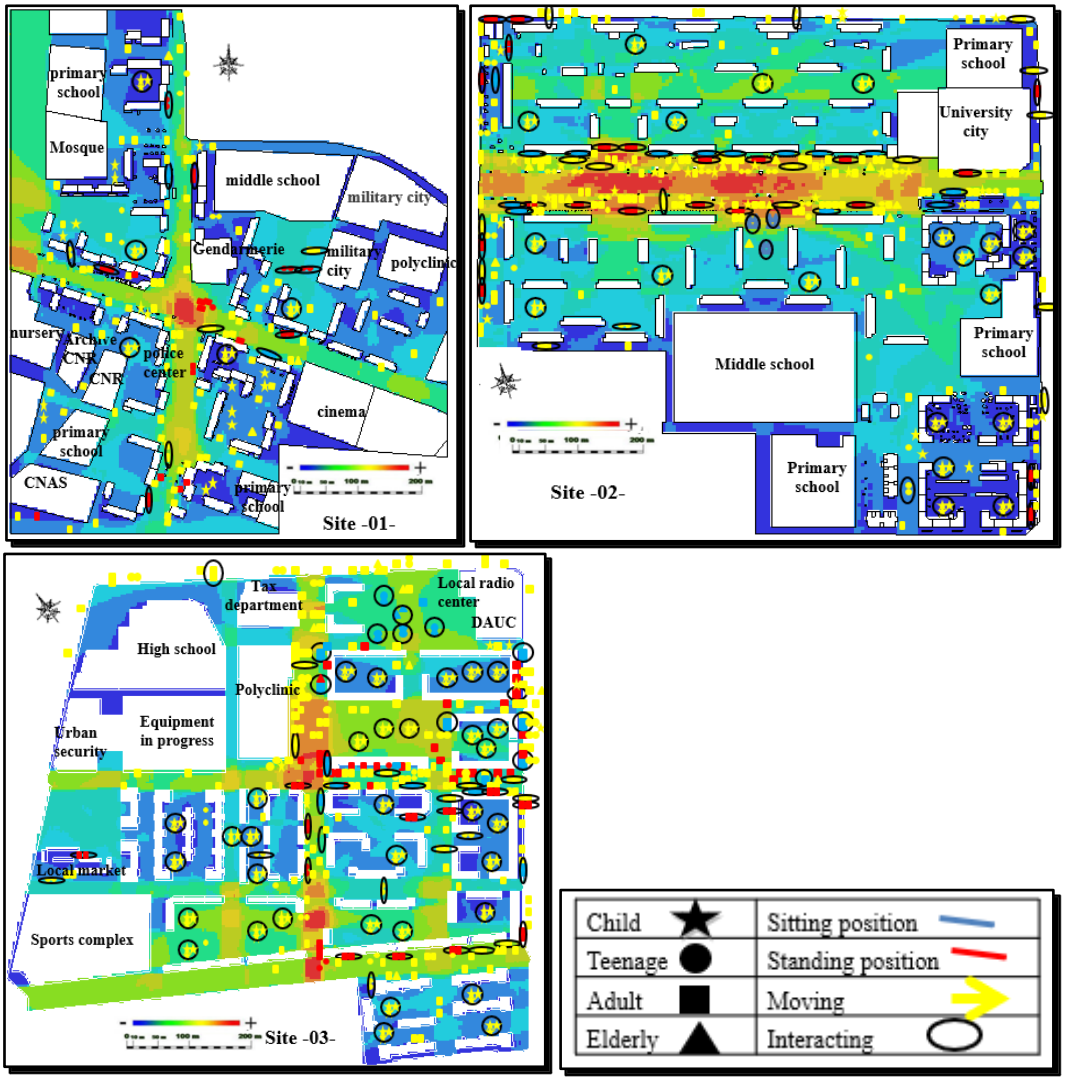

Fig. 17: superposition of connectivity results and snapshot results (Saturday) of the three case studies. Source: authors 2020.

The superposition of the clustering coefficient graph, which helps identify potential areas for social interaction, and the observation maps of the three sites over the two days reveals varied results (fig.16 & fig.19). For the first site, the superposition shows a relative correspondence between observed activities and clustering coefficient values in outdoor spaces. These areas, particularly parking lots repurposed as playgrounds and discussion spaces, are frequently used by children and teenagers.

In contrast, the second site show a low correspondence between the syntactic clustering coefficient measurement and the observation. The most important activities, located along the main boulevard, exhibit varied but mostly average clustering coefficient values. Meanwhile, spaces between residential buildings and near block-like structures (bars) have moderately high values, with activity intensity generally aligning with these values. However, the impasse between the middle and the primary schools, despite its high clustering coefficient, is rarely used (fig.16 & fig.19).

Fig. 18: superposition of integration results and snapshot results (Saturday) of the three case studies. Source: authors 2020.

On the right side of the third site, most observed activities align with medium, high and maximum clustering coefficient values on both survey days. In contrast, on the left side, spaces with high clustering coefficient values are nearly deserted, showing minimal interactions. (fig.16 & fig.19).

In this case, we can conclude that the clustering coefficient serves as a reliable indicator of activity levels in more enclosed urban forms but not in open urban forms.

Fig. 19: superposition of clustering coefficient results and snapshot results (Saturday) of the three case studies. Source: authors 2020.

In summary, the confrontation of three neighborhoods shows that the areas most integrated, connected and rich in social activity are the boulevards, streets, their intersections, internal roads and their nodes. These results can be attributed to the continuity and openness of these spaces, as well as the alignment of residential buildings along these roads.

Regarding the capacity of the space to offer opportunities for regrouping and social interactions, the results show that the first site (site-01-) is more suited to movement, especially in open areas along the two main circulation axes. Several factors may contribute to this outcome: first, a limited number of commercial or other attractive activities contrasts with a high density of residential buildings, and a lack of spaces for gathering or relaxation. Additionally, the presence of the military and police city, the gendarmerie and the unused cinema on the east side of the neighborhood likely discourages people from frequenting this area. In contrast, more social interaction and activities are observed in the intermediate spaces among U and L shaped buildings. the continuity and semi-enclosure of the urban form in these areas provide privacy and opportunities for grouping between users without exposure to outside views. (Fig.20)

Fig. 20: The photo, on the right, shows users moving in open areas, while the photo, on the left, shows children playing in the intermediate space among U shaped buildings in site-01-. Source: authors 2020.

The second neighborhood (site-02) is more favorable to the movement according to the integration graph. who has been judged in several researches as a predictor of movement. This is primarily due to the openness of its outdoor spaces, where configuration is based on parallel, aligned buildings (bars) provides significant orientation and visual permeability in the outdoor space (Fig.22). However, in the grouping of L and U-shaped buildings, outdoor spaces are more clearly defined with limited access points, which somewhat encourages regrouping and static activities, especially for the children and the elderly category. (Fig.21)

Fig. 21: The two photos show the regrouping of users (children and the elderly) in the intermediate space in site-02-. Source: authors 2020.

Fig. 22: The photo shows the movement of users in the open areas in site-02-.
Source: Oum El Bouaghi News 2020.

In contrast, the third site (site-03-) appear more conducive to social interactions, particularly in the intermediate outdoor spaces among U and L shaped buildings. these results can be explained by the continuity and closure of the urban form, offering more privacy and possibility for grouping between users without exposure to outside views. (Fig.23)

Fig. 23: The two photos show the regrouping of children playing in the intermediate space in site-03-.
Source: authors 2020

The high values of the coefficient of determination of the visual intelligibility across the three sites suggest that the urban form is conducive to movement and helps users to better understand the overall spatial system, making it easier to navigate due to the spatial fluidity.

It should be noted that the important presence of liberal functions in apartments on the right side of third site (site-03), on the ground floors of buildings along the boulevard in the second site (site-02), and along the peripheral boulevard on the right side of the third site, as well as the presence of stores and cafes, has generated public use of outdoor spaces by non-residents and increased attractiveness for a variety of users.

Across all three sites, the availability of street furniture greatly influences user presence. These users occupy in a dense way the equipped part, for example, the urban planning of the public place of site -03- gave rise to a dynamic of uses of the different categories of users, in particular the sitting occupation of the elderly. The location of sedentary activities often aligns with commercial areas, while social interactions frequently occur around parking areas, bus stops, and along commercially active boulevards.

CONCLUSIONS:

Social practices and interactions are among the basic needs of human beings, especially in recent years, as technological developments in the field of communication keep people away from each other. This study was carried out with the main objective of revealing the relationship between urban form and social practices by using space syntax analysis through different syntactical measures.

An analysis of the three case studies shows that site -01- is more suited to movement, particularly in open areas, than to the social interaction and activities, which are more commonly observed in the intermediate spaces among U and L shaped buildings.

Site-02- is characterized by an important potential for movement due to its location near important equipment in the city, and a moderate level of social interactions and static activities. The high number of liberal functions in the apartments at site -03- allows public use of outdoor spaces by non-residents. In addition, the occupation of the ground floors along the two main roads by commerce and cafes has attracted all types of users and affected the occupation of the place by the inhabitants.

This study indicates that the disposition of buildings and site organization in collective housing neighborhoods significantly impact the use of outdoor spaces by different age categories. The results demonstrate a strong relationship between urban form, social interactions and user movement. Urban form plays a crucial role in shaping the quality and intensity of social interactions, as well as in influencing user movement. Closed urban forms tend to support higher levels of social interaction and activity in outdoor spaces, while open urban forms are more conducive to movement and circulation.

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