EXPLORING THE ATTRIBUTES OF OPEN PUBLIC SPACES IN THE DEVELOPING CITIES

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Abstract

Open Public Spaces, according to Commission for Architecture and the Built Environment (CABE), are vital elements of urban fabrics that animate communities in cities. These significant spaces not only provide the residents with different facilities, but also promote social, economic, environmental and health opportunities. Successful open public spaces meet the needs of people of various social classes, ethnicities, and different backgrounds in general. Despite its importance within the city, the lack of appropriate design and planning strategies in developing cities have resulted in a degradation of the urban environment and subsequently the quality of urban life. The problem needs to be addressed with sensitivity to space as well as the people- its main users. The research, therefore, aims to explore the attributes of successful open public spaces that contributes to enhance the quality of public life from users' perspective. The research focuses on one case study: Horsh Al-Sanawbar, Beirut, Lebanon, which is perceived as the largest green public space in the heart of Beirut, where it plays a significant role in enhancing the public quality within the city. The paper argues that open public space dimensions consist of several attributes that makes an open public space successful, where these spaces can act as catalysts for enhancing the quality of life within the developing city. To prove this hypothesis, the paper adopts a qualitative approach, first, through desk research for defining the main keyword, and examining data from previous works and articles on the same topic wrote by various architects, urban planners, and theorists. Second a field methodology will be supported by questionnaire survey, walking interviews, and onsite observations regarding the four key attributes of successful open public spaces that are: physical, social, functional, and perceptual attributes. The author finally suggests a series of dimensions found in the design and development of open public spaces, that will contribute to create a design guideline for using the attributes in achieving better open public spaces.

Keywords

Open Public Space, Attribute, Urban Design, Quality of Life, Developing City

1. INTRODUCTION

Open public spaces are known to be a vital component within sustaining cities worldwide, where the need for public spaces is undeniable. However, despite the difference in social, physical, and spatial patterns of cities which vary considerably across the world. (Madanipour, 2010)

Gehl asserts that the so-called 'public life-oriented wave' started to gain its status recently (Gehl, 1987), This can be explained by claiming that throughout these forty years, the importance of the public life role was realized and appreciated, and that at the same time, there were a significant increase in the number of habitable and often utilized spaces (Davidson, 2010). The importance of open public spaces in town planning is highlighted in the most recent studies, and these areas become crucial in cities of various sizes, economic position, political environment, or cultural structure (Madanipour, 2010b). When discussing successful open public spaces, a sizable number of social scholars and designers, including William Whyte (2012), Kevin Lynch (1981), Clare Cooper Marcus (1970), Francis (1990), Barnes (1999), Jan Gehl (1987,1996), and Lyn Lofland (1998), emphasize the significance of flourishing and successful spaces.

Globally, over 68% of the population reside in urban areas now. Nevertheless, by 2045, the world's urban population will increase drastically by 1.5 times to 6 billion. This increase in urbanization have significantly led to the downfall of open public spaces, and a noticeable reduction of open spaces that allows social interaction and multiple physical activities.

The significance or dimensions of open public spaces have increased, and some would claim that open public space now has a central prominence in both emerging and industrialized nations (Carmona, 2010). The increased awareness of the roles public spaces can play in attaining diverse goals on the levels of the environment, economy, and society is one explanation for the growing relevance of public spaces. (Carr, Francis, Rivlin, 1992).

Fig.1: Dimensions of Open Public Space

Each one of these dimensions mentioned above contain several characteristics or attributes that contribute for the enhancement of the quality of life (QoL). After discussing the importance of open public spaces, the research paper will use the qualitative method to thoroughly analyse the various attributes- also known as characteristics- of open public spaces and how they are related to the four dimensions of open public spaces and their significance that enhance the city and resident's quality of life from user's perception.

1.1 Research Setting and Problem Statement

Open public spaces have a significant role in sustaining the public realm (Davidson, 2010). There is a growing misconception that modern societies and growing cities depend on squares or piazzas for basic needs. However, well-designed open public spaces with a variety of activities and amenities will cater to people's social and psychological needs, significantly enhancing the quality of life. There is now a resurgence of interest in public open spaces as a result, where they serve as spaces of grandeur within the city.

In the context of this research, the open public space's types are explored, and the attributes of open public spaces is analysed to further understand the attributes of successful open public spaces which enhances the quality of life. As Jan Gehl, the Danish architect once stated, "Every time we build anything we affect the quality of life of people." Moreover, an open public space, is the place where people of different backgrounds can have the

opportunity to experience socio-cultural events and perform several diverse activities, such as wander around or just relaxing. (Gehl, 2000)

"It's very important there's public life in public spaces. That means people from all walks of life will naturally meet in the streets, squares and parks of the city. So, you can see what society you belong to. You can see your fellow citizens eye to eye going about daily life."

-Jan Gehl,2000

In this quote stated above by the well-known Danish architect, whose career was dedicated to enhancing the quality of life in cities. He explains that by re-orienting city design towards the public, allows a public life to be formed within the open public spaces. This contributes significantly to the quality of life by enhancing the social and psychological health. Urban designers and planners hold responsibility in manifesting to increase the positive relation between the public and the open spaces, where attributes need to be the driving forces for this creation. The most vital role of open public spaces, ranging from a street to an urban city park, is solemnly to create a balance between cultural and social needs in cities. It is apparent that the inner areas in cities are mostly occupied with high population density, where it is mostly places of overwhelmed people by the busy hustle of activities. Accordingly, the much-needed enhancement of social interaction is most needed in congested urban areas where people's engagement within the environment, and their social encountering is encouraged (Bada & Farhi 2009; Bada & Guney, 2009).

As an increasing threat, Wezkalnys noted that the extinctions, distortion, or downgradient of open public spaces, such as parks, streets, and squares lead to a noticeable decline of public life. Where open public spaces are changing form being essential to optional in developing cities (El Husseinya, 2013). In city planning, open public spaces are crucial as a catalyst for community socialization; yet, as cities and urban populations have grown immensely, open public spaces have become less vibrant, and the usage of these social activity venues has decreased (Garreau, 2013). In addition, the social importance of an open public space has been aggravated throughout time, where it effectively serves as a meeting space for people (Sieverts, 2003). Many urban theorists believe that open public space is crucial in the formation of a city's public culture. However, especially in developing cities, the quality and quantity of open public places began to deteriorate and lose their essential value. (Sennett, 1977; Ellin, 1999; Carmona et al., 2003). Nowadays, there are unified challenges in relation to the use of open public spaces within the city's urban design (Thompson, 2007).

This can be justified by analysing the increase in open public space's significance during these four decades, where these spaces' roles were realised and understood, and the number of liveable and frequently utilized spaces have increased (Davidson, 2010). Recent studies have highlighted the significance of open public spaces in city planning, and those areas have grown crucial in cities of different sizes, economic status, political environments, and cultural structures (Madanipour, 2010b). Many social scholars and architects have written about the value of successful and flourishing spaces when discussing appropriate open public space, including William Whyte (2012), Kevin Lynch (1981), Clare Cooper Marcus (1970), Francis (1990), Barnes (1999), Jan Gehl (1987,1996), and Lyn Lofland (1998). (Francis, 2003 and Aljabri, 2014).

Accordingly, as our world changes, so do our needs, thus the need for open public space evolvement has become crucial since the everyday use of public space is no longer a "good to have" but a necessity for cities. Therefore, there is an increased need for appropriate, well-designed open public spaces that are responsive, meaningful, and provide a place for people to enjoy, relax, socialize, and be part of urban life (Tang, 2004). Accordingly, four main dimensions that contains the various attributes of open public spaces will be explained. The four dimensions are: physical environment, economic value, social meaning, inhabitant's psychology, as demonstrated in figure 1.
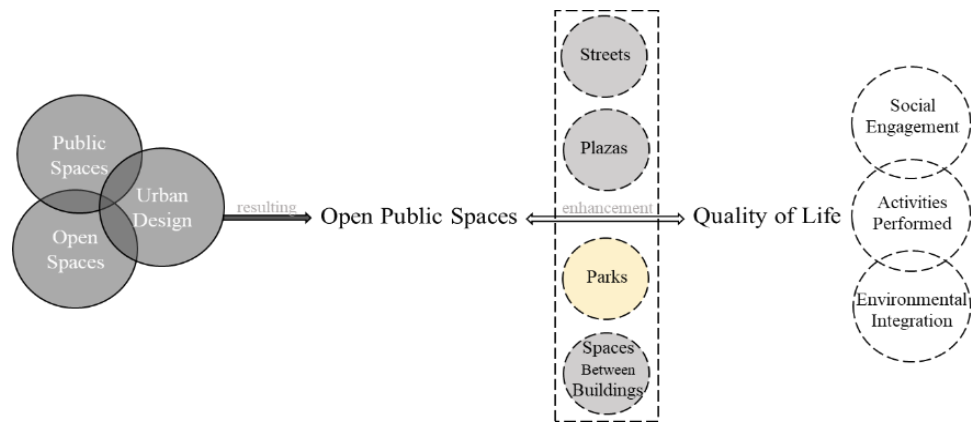
Fig.2: Relation between Open Public Spaces and Quality of Life
Source: Author

1.2 Aim of the Study

The aim of this research is:

"Exploring the various attributes of successful open public spaces that contributes to enhance the quality of public life from users' perspective"

Based on the aim stated, the following objectives have been developed:

- To investigate the concept of open public space, its attributes, and links between the importance of open public spaces within a developing city and its direct relation with quality of life.
- To analyse the different attributes that are found in the case study: Horsh Al-Sanawbar (successful open public space) that contributes to enhancing the urban quality.
- To create a set of design guidelines, that will further illustrate the importance of open public space's relation to the urban context.

1.3 Research Hypothesis

The paper argues that open public space dimensions consist of several attributes that makes an open public space successful. Successful open public spaces would inevitably enhance the quality of life within the developing city.

To further support the previous statement, Jan Gehl further stated in his book 'Life Between Buildings': "The city throughout the history of mankind has been the meeting place for people. Much of the mankind's culture has happened in the public space. Public space is a very important aspect of a good and well-functioning city." (Gehl, 2010)

2. LITEARATURE REVIEW

Any area in the urban environment that is not occupied by a building is known as open space. The Plan for London, for instance, identifies an open space as "All land use in London that is primarily undeveloped other than by buildings or structures that are ancillary to the open space use" (Kellet, 2009). 'Public space', as a concept, is considered the core interest of the research, where it is vastly used in multi-disciplinary approaches including social science, and planning and design, each have different understanding, conceptions, and definitions of public space (Smith and Low, 2006). It is of great importance to acknowledge the definition of the main keyword, that is the term 'open public space', which has two significant components including 'public' and 'open' space, where they seem parallel in meaning. Originally, the term 'public' came from Latin which means 'people', where implies that public spaces can be viewed upon as open spaces for all people, of different age, gender, and backgrounds and at the same time, is being controlled by the city on their behalf (Madanipour, 2010). There are many well-known

publications that manifested in the field of 'open public spaces' written by urban planners and designers such as: Jan Gehl, Matthew Carmona, and Mariana Mogilevich, where their books shaped many of the guidelines and proposals for the incorporation of open public spaces within urban context. (Gehl, 2011)

All open spaces in London- whether accessible or restricted- are covered by the previous definition. Therefore, it is understood that streets, roads, and other spaces usually used by vehicles are not considered open spaces, since the open spaces is a certain space with an definite or identified activity (Kellet, 2009). Despite having a physical activity within the roads and streets, it is however, not considered as open spaces. The Scottish Planning Policy provided a more detailed definition of open public space, defining it as "green spaces that are covered by plant, water, or any other geological feature within towns or on the borders of them." In addition to squares, markets, and other paved or hard-landscaped areas with a civic role, it may also contain allotments, trees, woodlands, walkways, and other public spaces. (Kellet, 2009).

Another definition of open public spaces offered by Wang (2002), which summarized the definition of both 'public spaces' and 'open space' within the context of urban area provided by diverse schools, where a new definition have been stated as: ""the space should be the place for urban residents to meet and talk with others, and for human being to stay in the natural environment; it is, nevertheless, the symbol of urban image, thus being called as the living room or window of the city. It is multifunctional space in urban area, which could be center of political, economic, or cultural activities. Open public space is dynamic, which is essential for the sustainable development of the city". Thus, people have access to spaces, to activities, to information, and to resources. (Wang, 2002) However, in many situations, they are only accessible during daylight hours. (UN Habitat, 2018)

According to urban planners and urban designers, attributes of open public spaces are usually measured and analysed qualitatively- such as exploring the users' perception (such as in questionnaires and surveys) of the given space, or by analysing the physical activities within the space. However, open public spaces can also be assessed quantitively as will be explored further on. The research paper uses the users' perception strategy to explore characteristics or attributes which they are mostly impacted by and believe have the most impact on QoL (Hajer, Reijndorp, 2001)

2.1 Types of Open Public Spaces

As previously stated, there is no agreed unified definition that encompasses them all, where there is a broad agreement that multiple types of open public spaces exist. According to the UN Habitat (2018), open public spaces refer to undeveloped land or a property without buildings (or other built structures) that is open to the public, offers recreational opportunities for locals, and contributes in enhancing the beauty and environmental quality of neighbourhoods. Parks, gardens, playgrounds, and urban squares are examples of open public space that vary across cities (UN Habitat, 2018). Accordingly, they could be classified based on several criteria.

However, this research distinguishes between vegetated and non-vegetated places, which results in the following typological classification, as shown in figure 3:

- Greenspace: any vegetated land or building, bodies of water, or geological formations are included in this subset of open space in urban environments.
- Greyspace/ Civic Space: a sub-set of open space, which consists of urban squares, marketplaces, and other paved or hardscapes areas with a community function.

In Al-Hagla's scheme (2008), green space signifies "a subset of open space, consisting of any vegetated land or structure, water, or geological feature within urban areas," and grey space refers spaces that are more civic-oriented as "urban squares, marketplaces and other paved or hard landscaped areas." (Al-Hagla, 2008) Green spaces have several social, economic, and environmental advantages, which are instantly reflected to enhance the physical, social, psychological, emotional, and material well-being of

individuals, and hence the society; thus, inevitably improving the quality of life (Mensah et al., 2016).

2.1.1 Green Spaces

It is important to highlight that, green spaces represent a common value, and a meeting space for individuals, where the vision of a common area enables and reflects the society's condition of wellbeing.

- Parks and gardens: These are typically beautifully landscaped places that offer a variety of unorganized relaxation and casual activities. These areas may also be of natural significance and offer connections for bicyclists and pedestrians to join the network of open spaces between streets.
- Amenity greenspace: Conserved and managed and landscaped spaces that have no clear use by people, however it provides visual amenity and aesthetic features or separates different buildings or land uses for environmental, visual, or safety reasons. In addition, they could be used as habitats for wildlife. It is usually surrounded by city elements, with a minimum size of 0.5 acre and maximum size of 8 acres.
- Children's play areas: These areas are equipped with facilities for children, where it is a piece of land that provides accessible and secure areas for kids to play. This area is usually surrounding or closely linked to housing areas, and usually set within a wider green environment of amenity open space and is usually fenced and located near residential areas.
- Outdoor sport fields and organized facilities: Areas primarily used for sports and for playing organized sport in an outdoor setting. Usually consists of flat areas of grassland or artificial surfaces that are vegetated. Primarily used for sports, The core function of this space is to accommodate practice, exercise, and a place where competitions are usually held. The size usually depends on the type of sport.
- Green Corridors: Several walking and/or cycling trails connect open space areas and offer formally or informally connectedness between and within cities, neighbourhoods, and districts. The Green corridors' main purpose is to promote environmentally friendly, safe urban transportation.
- Conservation Reserves (Protected Areas): The preservation and protection of natural ecosystems, geographical characteristics, and/or historical and scenic elements are the aim of these places. Depending on the situation and/or in accordance with management plans, some unorganized recreational activities and informal activities may be permitted within conservation reserves. (Adger, 2000)
- Natural and semi-natural open space: Undeveloped land with little or limited maintenance. These regions may contain land that is preserved for its natural and historical features. Long relatively narrow, interconnected areas of open space can be considered natural and seminatural areas. These areas may offer visual buffers, movement corridors for pedestrians and cyclists (where appropriate), as well as habitat for flora and wildlife (promote biodiversity).

2.1.2 Grey Spaces

Public squares are one of the most significant areas for the public in a city. Urban squares are unreserved public areas that exhibit the character of the cities and the cultural heritage of the people. Since ancient times, "urban life" has taken place there, where locals gather. Urban squares, which are a vital part of city planning, improve the reputation and appeal of the city. (Design Council, 2017)

- Urban squares and plazas: The presence of the main public square or plaza always defines the urban precinct. This place reflects the architecture and cultural reality of that place and the period, where they share a direct physical connection along

the square and built fabric of the city. It mainly consists of pavement and has a minimum size of 0.5 acre and maximum size of 2 -5 acres. (Cliff Moughtin, 2003)

- Pedestrian Streets: usually identified as previous roads which have been paved over for social enhancement, and have seats and planters installed upon them.
- Promenades and sea fronts: Recreational activities that have exceptional value when located on historical areas.

Fig.3: Types of Open Public Spaces, showcasing Green Space and Grey Spaces

2.2 Open Public Space- Dimensions and Attributes

As previously mentioned, there are four basic dimensions for open public spaces which will be further explained in this chapter.

2.2.1 Physical Environment

According to Carmona, there are many important variables to consider when examining the settlements, including land usage, building structures, plot design, and street plan (Carmona, 2003). Similarly, Kim asserts that urban morphology is fundamentally about form and its composition within the city (Maclean, Cuthill, Ross, 2014). Madanipour, nevertheless, defines urban morphology as "the systematic study of the genesis and historical development of the constructed fabric of towns and cities, including its form, shape, plan, structure, and function" (Madanipour, 1996).

The basic dimension of open public spaces lies within being a crucial part of the physical environment. The function of open public space allows movement, encounter between individuals and their surrounding context, and enhances accessibility. Open public space, as previously mentioned, can have various forms as its physical roles, such as streets, plazas, parks, squares, marketplaces, etc. (Ramlee et al., 2015). Therefore, researchers adopt categorizing based on the need of designing the space. Moreover, it contributes to the user's activity and accessibility within the space (Carmona,2010). This will inevitably have an impact on how academics see the people's physical demands in public settings. By lowering city temperatures and promoting a more energy-efficient city, open public spaces can also support SDG 7-affordable and clean energy. Urban areas are currently becoming

warmer due to the increase of paved areas and the reduction of green spaces in developing cities (PPS, 2018). As will be fully discussed, OPS mitigate this effect by chilling the air, providing shade, and trapping air pollutants. Thus, it is clear that the physical environment dimension is also associated with natural environment and sustainability.

The study of the living environment have been highly impacted by open public spaces, since the beginning of contemporary urban planning. Several famous architects and planners believe that open public space is set to improve ventilation and sunlight absorbance within the city such as SWA architects created a 700-meter-long pedestrian only sanctuary called the Gubei Pedestrian Promenade in Shanghai, and Frederick Law Olmsted who designed the New York City's Central Park, as shown clearly in figures 4(a) and 4(b).

Fig4 (a): Left: Gubei pedestrianpromenade
by SWA, Shanghai
Source: Project for Public Space, 2016

Fig.4 (b): Right: Central Park, NYC
Source: Getty Images

2.2.2 Economic Value

Any effective open public space design strategy must have a high-quality public space since it can have a major or minor impact on the economic vitality of urban centres. The presence of good open public spaces as- parks, squares, gardens, etc., have become a crucial commercial and marketing tool as municipalities increasingly compete to draw investment.

The most noticeable issue is the ability of open public space to bring higher values to private part- a good public landscape also offers very clear benefits to the local economy in terms of stimulating increased real estate values.

William H. Whyte (2012) highlights the possibility of open public space's ability to contain various and different daily life activities and hence sustains small-scale economic activity (Whyte, 2012). Jane Jacobs (2016) also depicted the vibrant public space life, which is closely related to neighbourhood identity and economic strength. Unfortunately, in face of public space scarcity in cities, Madanipour (1999) emphasizes that public space may effectively contribute to the development of recreational facilities in cities, which can encourage the transition of the economy. The economic significance of public space can be treated in different ways, where it depends on the attractiveness, multifunctionality, and publicness of public space which can generate value as shown in figure 5. It must be noted that economic growth is also generated from the multiple flows that occur in the open public space, namely by people, goods, capital, etc. (Madanipour, 1999)

Fig.5: Market may be the best illustration of the economic value of public space. Street market in Shanghang.
Source: Mengyi, 2017

2.2.3 Social Meaning

Urban design must take into account how people (or society) interact with their surroundings (or space), according to Carmona et al. (2010). It is further explained that people's interaction with their environment is describes as "a constant two-way process in which people create and alter spaces while also being influenced by those spaces in varied ways" (Carmona et al., 2010). People frequently congregate in public spaces like parks and squares to catch up with friends and coworkers, but they also often connect for the first time with other strangers there, making for unpredictable community events: "the charter of public places is freedom of action and the right to stay inactive" (Saalam, 1968).

The setting's qualities, such as the participant's culture, the many activities they engage in together, or any designated times for such activities, greatly influence the way in which people interact in public spaces. According to some, public life serves as a getaway from the stresses of everyday life where people can socialize while also experiencing joy, relaxation, comfort, and recreation. (Gehl, 2011). In this sense, public life can be viewed as a space for uniting individuals from different backgrounds and experiences together and creating a unique realm where they are freely to express themselves. Public life is, therefore, an essential cornerstone in the development of open public spaces. Open public space, according to Yang (2013), is a catalyst for social activity and enhance the feeling of comfort. People still want to interact in person, despite the growth of contemporary communication technology like cell phones, the internet, etc. (Low, Smith, 2006).

Fig.6: Great public spaces have a strong sense of community. Picture source: Project for Public Spaces
Source: Project for Public Spaces, 2018

2.2.4 Inhabitants' Psychology

Urban living can be unsafe and isolating, or it can be centered on the community, comfortable, and safe. When planning ecologically sustainable urban areas, it is important to take into account the psychological demands and mental needs of urban residents. After all, urban areas may be beneficial if residents need to live there. City residents have a practically 40% higher danger of depression, over 20% nervousness. Given that issue, is the main reason for the significance of Sustainable Development Goal 11- sustainable cities and communities, which contributes to good health and wellbeing, by providing spaces for individuals to be genuinely dynamic (Steiner, 2019).
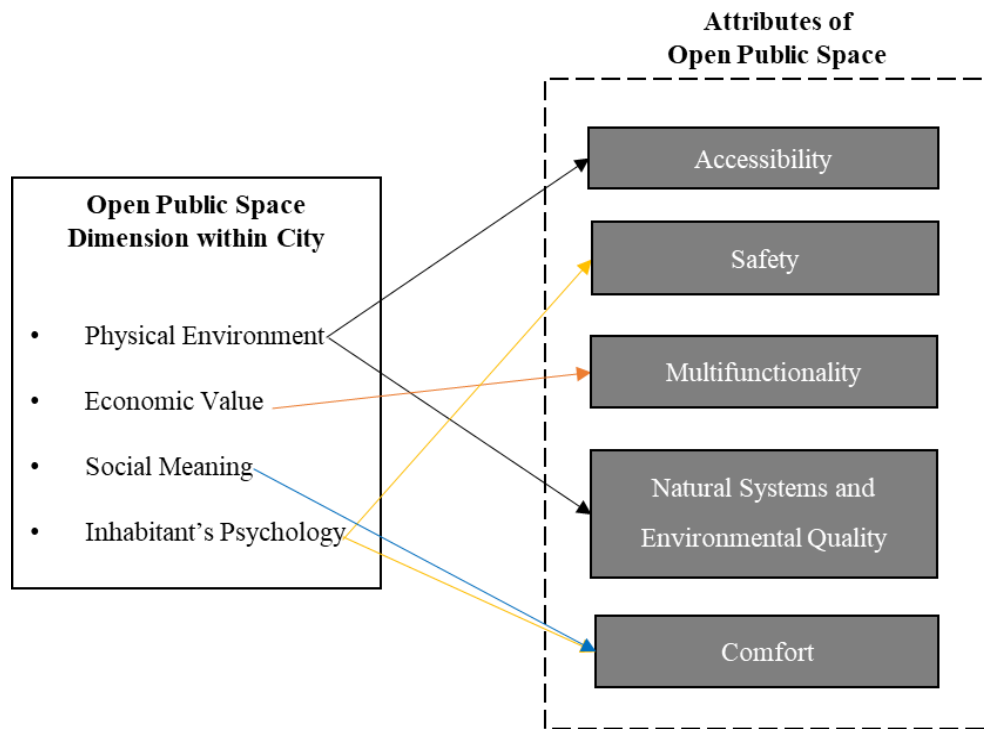

Fig.7: The direct relation between open public space dimensions containing several attributes/ characteristics

As a result, availability of green areas and nature are consistently linked to increased psychological well-being, decreased negativity, and enhanced cognitive functioning, and a higher sense of safety. The pressures and stressors of city life can be relieved by experiencing nature. Moreover, providing opportunities for people to be active- such as increasing their capacity to walk around, and creating secure and safe open public spaces- enhances the mental health and emotional wellness, and ensures possibilities for individuals to be dynamic (Tang, 2004).

2.2.5 Attributes of Successful Open Public Spaces

During the research, given the previous definitions of each open public space dimension, several attributes are related within each one in successful open public spaces. When these characteristics are present in an open public space, the QoL is enhanced. The attributes conducted from the previous literature review are shown in table 1, which are defined as:

Table 1: Attributes of Successful Open Public Spaces

Attributes	Definition
Accessibility	Refers to the degree of free access, penetration and use of public space for all, regardless of any physical or mental impairment. On a city-wide scale the principle of accessibility is refer to the connectivity of the city's districts, the regularity of traffic and the ergonomics of public transport and stopping points. On a district scale accessibility is expressed in terms of porosity of the block structure and pedestrian accessibility of basic public functions (Whyte, 2009).
Safety	Refers to the degree of security of a person in public space. Social control is the defining indicator for protection from crime in public spaces. City is safer than more people go out and spend time in public areas. A city that invites people to actively use of public spaces should offer them safe walking routes and active polymorph public nodes. The safety of nodal spaces depends more on the ability to protect themselves from unpleasant conditions (wind, rain, cold, dust, noise, etc.) (Burton, Mitchell, 2006)
Multifunctionality	refers to the degree of functional diversity and the possibility of choosing in public space. Only a diverse, mutually beneficial and complex mixture of places of residence, leisure, trade and other functional urban subsystems can ensure the build-up of social capital in the city (Jacobs, 1961). It should be noted that the principle of multifunctionality is important for spaces of regional and citywide importance..
Natural Systems and Environmental Quality (Sustainability)	refers to the degree of creation of a friendly environmental situation and the satisfaction of needs without damage to the environment. In today's busy, noisy and aggressive communication environment of the city, a person is tired of aggression and strives for seclusion and silence. Given this feature of large cities will increase the need for spaces hidden from heavy traffic (pedestrian streets, parks). Expanding the network of such spaces in the city structure helps to reduce noise, air pollution and create a cosy atmosphere for the people. Such network is comfortable from the ecological point of view and contributes to the development of the permeability and safety public spaces. It is necessary to design public spaces as ecosystems in which elements created by man interact with natural ones. Ecological solutions (permeable sidewalks, bio-drainage systems) contribute to the sustainable development and improvement of the urban environment (NACTO, 2015)
Comfort	The success of a space is determined by how comfortable it is and how well it presents itself- has a good image. Comfort includes perceptions about safety, cleanliness, and the availability of seating options- the importance of allowing people to sit where they choose is often overlooked. (Gehl, Gemzøe, 2006)

2.3 Assessment of Open Public Space Attributes

However, it was distinguished that open public spaces can be measured and assessed in five groups of criteria. The first criteria group, called "Quantity and availability of urban open public spaces", which emphasizes the key, quantitatively measurable physical characteristics of open public spaces. The second criteria group, "Changes in green spaces", quantitively conducts and analyses the recent changes in the overall green areas during the past ten year. The third set of criteria, "Planning of green spaces," includes qualitative criteria that relate to a city's planning framework and the specifications for these areas. The budget changes are quantitatively examined in the fourth criteria group, "Financing of Urban Green Spaces." From the representatives' personal evaluation viewpoints, the final criterion group, "Level of performance," represents the attributes of successful open public spaces in relation to the goals of a city. Table 2 summarizes these five thematic groups of criteria and accompanying sub-criteria (Baycan-Levent and Nijkamp, 2004)

Table 2: Assessment of open public spaces policy and accompanying criteria

Criteria	Sub-Criteria	Data Type	Expected value
Quantity and availability of urban spaces	Proportion of open public spaces with respect to total area (%)	Quantitative	Higher is better
	Proportion of open public spaces per 1000 inhabitant (m2)	Quantitative	Higher is better
	Existence of a regional open public system	Qualitative	Existence is better
Changes in urban spaces	Recent changes in the total area of open public spaces in the last 10 years	Quantitative	Increase is better
Planning of urban spaces	Importance of open public spaces to the city compared to other functions	Qualitative	Higher is better
	Existence of general goals and strategies for the planning of urban spaces	Qualitative	Existence is better
	Existence of special planning instruments for open public spaces	Qualitative	Existence is better
	Experience with citizens participation	Qualitative	Experience is better
Financing of urban green spaces	Changes in the budget for greenery in the last two years	Quantitative	Increase is better
Level of performance	Success level of open public space within the city from the users' own evaluation perspectives	Qualitative	Higher is better

Source: Baycan-Levent and Nijkamp, 2004

As previously mentioned, urban planners and architects usually measure and assess the attributes of open public space using the qualitative method. The "Level of Performance" highlights the success level of open public space in light of assessing its attributes from the citizens' own evaluation perspectives. The performance can be defined as: (1) very successful, (2) moderately successful, (3) marginally successful, (4) low success, (5) no success at all.

2.4 Historical Background of 'Open Public Spaces' in Cities

Historically, the form and shape of open public space has changed dramatically based on its function and needs. Open public space can, in fact, be "the structural framework to which various forms and activities can relate to establish edges, foci, nodes, districts, and eventually regions of different size, scale, and character," according to Lynch (Lynch, 1961). An outline of the historical origins of open public space planning will be provided within a context of Western experience, Islamic Arab context, Industrial revolution, and finally in the Information age. The main objective of open public space is to express the present, and to influence the future, without neglecting the past.

2.4.1 Western Experience

Within the context of the Western culture, open public space planning's historical roots will be illustrated, with an emphasis on particular historical antecedents which were neither planned nor designed- in the true sense of the words - as open public spaces, for example the agora of ancient Greece, Roman forum, Medieval market square, and the Renaissance Plaza. They existed as a result of either the unplanned natural growth of the urban center or a choice made by an autocratic (often aristocratic) administration, frequently due to worries about defence (Whyte, 2012).

- The Greek Agora, which served as the town's focal point and multipurpose space, was regarded as the forerunner of public space. It was situated in the polis's center. It had political, economic, and social importance, which provided opportunities for

participating in sports, watching sports, social equity, and attending political events.

- Roman Forum: Roman spaces indicated successful spatial relationships, as well as the principle of system and logic on the open spaces designs- which were characterized by homogeneity and arrangement. Therefore, they introduced the "scale" in their designs (the average axis of each building perpendicular to another axis).

- The Medieval Market Square: around the 10th century, the two safety islands- the castle and the abbey- gradually extended the growing settlement's walls for promoting safety. The marketplace was first evolved around the 11th century and became a crucial public space during medieval times and promoted "safety". Most of its locations were in the town's center, in front of the castle or cathedral.

- Neo-classical period: A break from the more organic, naturally developing public places of the Middle Ages were the huge plazas of the Renaissance, which were meticulously planned and formally created. Main squares started to be built as a unit in the late sixteenth century, based on a totally symmetrical plan, beginning in Livorno, Italy (Girouard, 1985). Formal designs and planning were particularly prevalent throughout this era, which is also known as the Renaissance and Baroque period and is also known as the Neo-Classical period. Open public spaces' design in general, and squares, relied heavily on symmetry and order.

2.4.2 The Industrial Revolution Age

The industrial revolution in the 19th century led to significant changes in urban layout and design, widening the gap between town and country. Government-designated neighbourhood parks, which are common in many contemporary cities, are a relatively recent phenomenon in world history. Reformist movements aiming at enhancing the cultural refinement or physical health of urban dwellers led to the first specialized parks being popular in North American and European cities in the nineteeth century (Carr et al., 1992). Specific opportunities for social interaction were offered by adequate park planning. Many urban squares were transformed into crossroads in the second half of the 20th century, particularly in developing cities (Gatrell, 2004).

2.4.3 Islamic Arab Context

The Arab-Islamic city is entirely unique from other urban forms, since it was based on the principles and legalizations of Islam, which effected urban solutions during that time. The prime public building was the mosque, where it not only functioned as a place of worship, but also provided limited social and political functions. Furthermore, open public space was reduced to an inward-looking corridor system. Cities are built to follow the path of the sun, and alleyways are frequently oriented to give shade for passersby. (Bianca, 2019)

2.4.4 Information Age

In the 21st century, a major new component – digital technology, and the ability it gives everyone to geo-locate themselves – has been added to the mix, radically changing the role played by individuals in the public space. Armed with a smart device, the pedestrian has been turned into a multi-sensor and multi-sensory entity, radically changing the ties that bind him or her to the urban space and the public space (Howard, 1965). The hybridization between the urban space, the open public space and new technologies is a crucial factor which aids and allow people to reinvest the open public space and making it easier for multifunctional facilities. (Evans, 2019)

2.5 Representation of Open Public Spaces

It can be realized that open public spaces in cities is not only considered a luxury but is a much-needed urban component that must be present in cities for enhancing the quality of both, the city and the people's life. *"First we shape the cities — then they shape us."*, this quote by Jan Gehl, (Gehl, 1987) explains how open public spaces play a huge role in identifying how users experience life every single day. (Friedmann, 2000) Therefore, there are plenty of ways open public spaces can be integrated within the city, which foster the human connections in cities. The real question lies within, how are attributes assessed and measured to further understand their impact on the QoL? The first example demonstrates the development of a linear urban park. The main focus on the urban park generated creative and diverse open public space through the usage of three zones/ colours. Each of them has a unique program that may be identified by the color in the name. Market, entertainment, and athletics all take place on the Red Square. An urban living room, the Black Market. Sports and recreation are allowed in the Green Park.

Fig.8: Superkilen Urban Park Showcasing the Three Zones
Source: ArchDaily, 2018

Each zone, as shown in figure 8 above, has its iconic urban furniture. As a form of public engagement, Bjarke Ingels undertook the project in partnership with the Berlin-based landscape architects Topotek 1 and the Danish group of artists Superflex. The main aim was to enhance the several dimensions within the open public space. The chart below, showcases the different attributes of open public spaces, and how they are assessed by user's perception. Indicating on the quality of open public space and how it enhances the surrounding environment.
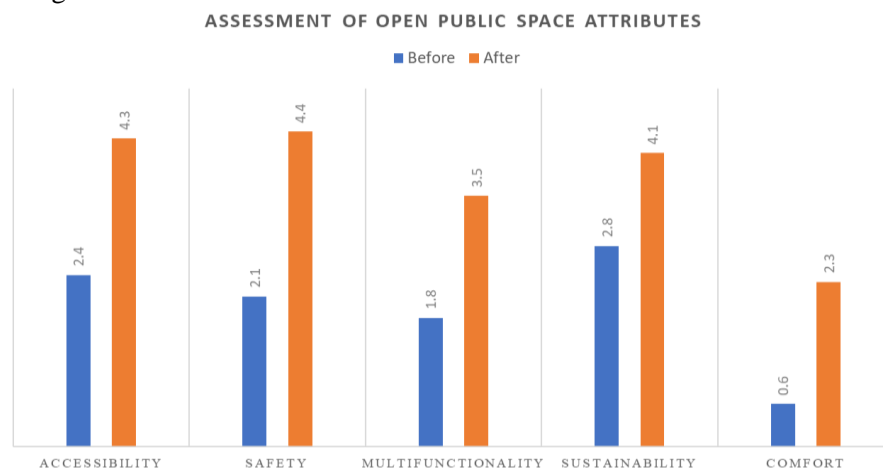

Fig.9: Diagram illustrating the open public space attributes that have been enhances to create a successful open public space within the city.
Source: Author- based on Mcallin, 2017

Another example which clearly measures the attributes of open public space within the city is 'Tapis Rouge' in Haiti by EVA Studio, which is one of the several public spaces which offers "a better life in the neighbourhood". The architect focused on two dimensions which are: social and physical dimensions.

Fig.10: Tapis Rouge in Haiti Urban Park for City Enhancement
Source: ArchDaily, 2015

Open public spaces are considered essential in the urban design planning where it acts as a catalyst for safe, accessible, and clean environments. Tapis Rouge Park provided:

- Using an inclusive approach, that aims to create versatile spaces that facilitate and encourage social harmony.
- Creating a local community that has an immense sense of belonging, empowerment ownership, identity, and pride.
- Enhancing comfort and the image of the space

The design itself has a strong sense of community and views public space as an anthropological foundation on which identity and social relationships can develop using a participatory strategy. The objective was to make the region more secure and hygienic in order to lessen crime, violence, and antisocial behavior. Users have viewed the characteristics of open public spaces as demonstrated in figure 2, which inevitably enhances the quality of life within the city.
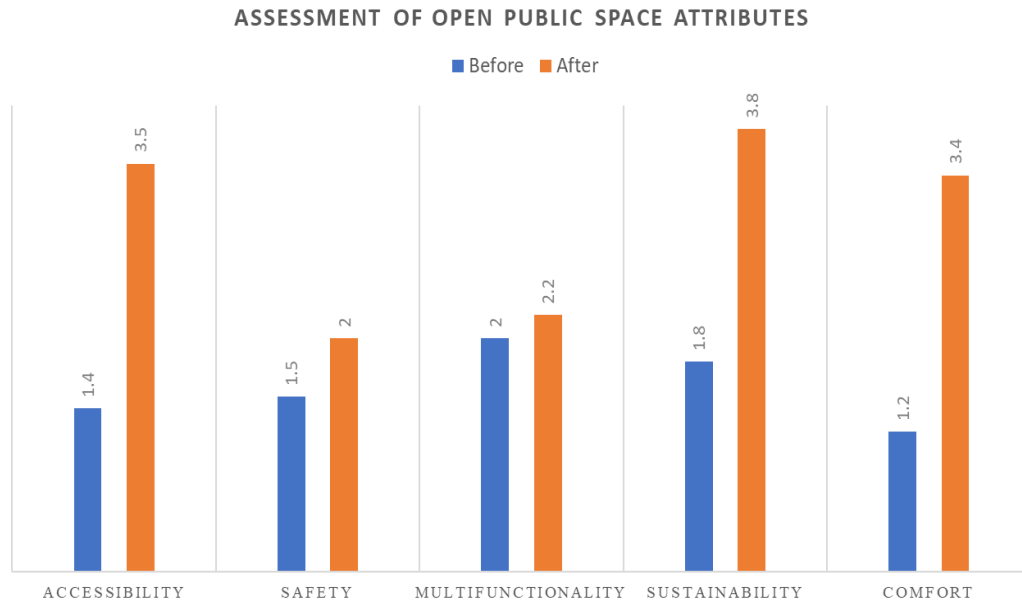
ASSESSMENT OF OPEN PUBLIC SPACE ATTRIBUTES

■ Before ■ After

Fig.11: Diagram showcasing the open public space attributes that have been enhances to create a successful open public space within the city.
Source: Author- based on Jason Kemduler. 2018

3. RESEARCH METHODOLOGY:

The paper uses various types of research methodology, which can be briefly states as four types: First, the inductive method, where data is gathered regarding the chosen case study; 'Horsh Al-Sanawbar', recognizing the parameters previously mentioned. Second, the field method where the author visited several spots in the park of 'Horsh Al-Sanawbar, taking live photographs, and undertaking interviews with a sample of people that regularly use this space. The adopted approach is based on the attributes of open public spaces that have been derived from literature review, which enquires about the types, appropriateness, and impact of natural and human-made factors with the intention to examine how people perceive the attributes in the open public spaces. Assessment of people's perception is an explicit purpose of this paper. Nevertheless, using a qualitative approach, a written questionnaire was also distributed amongst 150 samples to further understand their perspective upon this space, and observations along the site regarding the four open public space attributes which are: uses and activities, access and linkages, comfort and image and sociability. This would help acknowledge the user's perception about such spaces and the surrounding development which help in formulating directions for the development of successful open public spaces. As seen in table 3, each characteristic or attribute is further categorised based on certain variables and indicators. Table 3 also demonstrates the main characteristics/ attributes that will further be used to analyse the case study. Third, the analytical method to analyze the results collected from the interview and questionnaire. Finally, the paper uses the deductive method to deduct a strategy of certain solutions to further enhance the attributes of open public spaces. The research will present the four research methodologies as follows:

Table 3: Framework of Analysis

S.N.	Attributes	Variables	Indicators
1	Users and Activities	Diverse group of people	Children, youngsters, adults, elderly, men, women
		Diverse type of activity and use frequency	Jogging, strolling, sitting, playing, exercising, yoga, meditation, fishing, boating, eating, shopping, relaxing, watching peoples' activities, watching and photographing wildlife, bird watching
2	Access and Linkages	Easy to get to and connectivity to the surrounding community	Accessibility to the lake
			Connectivity with the neighborhood
3	Comfort and Image	Comfort	Sitting provisions, sheltered spaces and shading devices, ease of walking, pavements, noise level, street furniture, food facility
		Safety	Boundary/safety walls, railings, lighting, policing, antisocial activities
		Cleanliness	Waste bins, restrooms, maintenance
		Attractiveness	Contact with nature, vegetation, landscape, quality of water, skyline, visibility from road
4	Sociability	Social contact a) Overt (getting together) b) Covert (privately)	Provisions to facilitate interactions with people and nature, sitting arrangements, Cultural/heritage elements, social events and celebrations, kids play zones

The key attributes mentioned earlier, have had a huge impact for the success level of open public spaces in recent times, nevertheless, it is also discovered that these attributes have had an indirect impact on the formation and changing matter of open public spaces in the ancient times, as will be seen in the next part. (Montgomery, 1998).

3.1 Introducing the Case Study of 'Horsh Al-Sanawbar'

In general, Beirut, is the capital, main port, and largest city of Lebanon that is located on the Mediterranean coast at the foot of the Lebanon Mountains. Although Beirut has an increasing population of 1.25 million inhabitant, the city does not have sufficient public spaces thus affecting its quality of life for the citizens (socially, economically, and environmentally). One of the rare green patches are composed of the Horsh El- Sanawbar, and Hippodrome (located in front of the Horsh). The case study chosen is 'Horsh Al-Sanawbar' or known as 'Horsh Beirut', which is one of the rare green patches in the city that enhances social, economic and environmental aspects within the city. The green patch, also known as the 'Green Line' was once the place where neighbourhoods and religions are separated during the Lebanese Civil War. Today, (Brodin, 2006) it is considered as a potential meeting point for the Lebanese people and attracts tourists for its attributes. Horsh Beirut can be clearly seen in Figure 12.
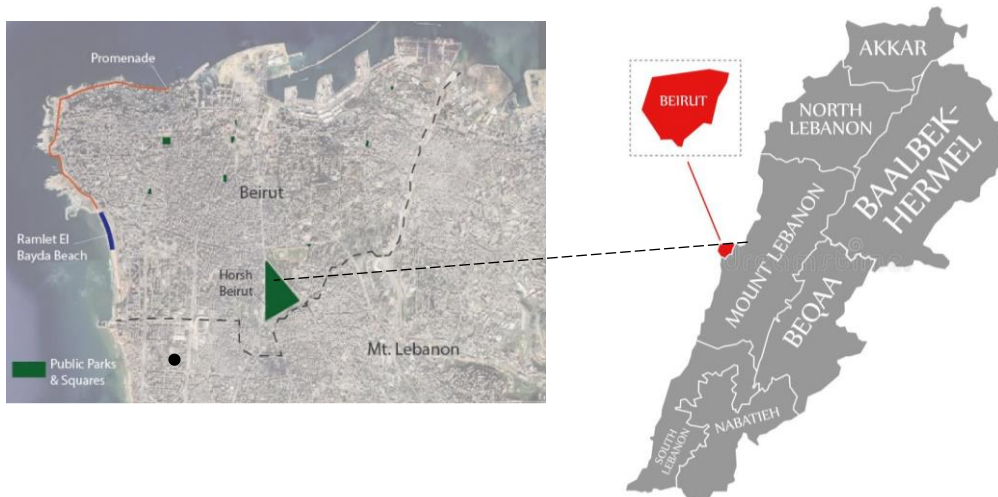
Fig.12: Map showcasing the unique location of Horsh Al-Sanawbar within Beirut
Source: Stephan, 2019

3.1.1 Criteria of Selection

Choosing Horsh Beirut as the main open public space to acknowledge refers to several reasons:

- Considered the largest open public space in Beirut- believed to be as the place to 'breathe' within the busy city.
- Surrounded by densely populated areas, with a significant, unique location that is considered in the heaty of Beirut.
- It is an easily accessible site, as all highways are at the border of Horsh Beirut leading to these spaces.

Fig.13: The chosen site 'Horsh Al-Sanawbar'
Source: Gemayel, 2007

Therefore, this case study can be identified as one of the most crucial places within the city to analyze it attributes, that offers a public green space for the people. Open public spaces do not only allow for an increase in social aspects within the space, but it can also act as an image of grandeur, as John Ruskin- the English critic- once stated that: *"The measure of any great civilization is its cities measure of a city's greatness is to be found in the quality of its public spaces, its parks, and squares"*.

3.1.2 Historical Background of 'Horsh El- Sanawbar'

With a triangular area of 225,000 m2, Horsh Beirut is the largest green public space in the municipality and metropolitan area of Beirut, as previously mentioned. The park is situated between the neighbourhoods of Tarik El Jdideh, Kakas, and

Tayouneh in the city's southern region. This park is from the 17th century where it was completely a pine forest- hence where it got its name. As seen in the Fig. 13, Horsh Al-Sanawbar underwent a series of changes before it became the park known as today. Apart from its historical significance, people usually celebrated plenty of holidays in this space up until civil war in 1975- 1990. Once a pine forest, as the city developed, the human needs changed as well, where the Horsh gradually diminished. In the early 1900s, large parts were constructed within it. During the 1950s and early 1960s, roads were planned to cut through it, forming a fenced park. Moreover, 1982, the Horsh unfortunately endured an Israeli invasion. Finally in 1990, after the civil war ended, the Horsh was rehabilitated and redesigned to fit the attributes and needs of the neighbourhood and benefit the society. (Khalaf, 1993)
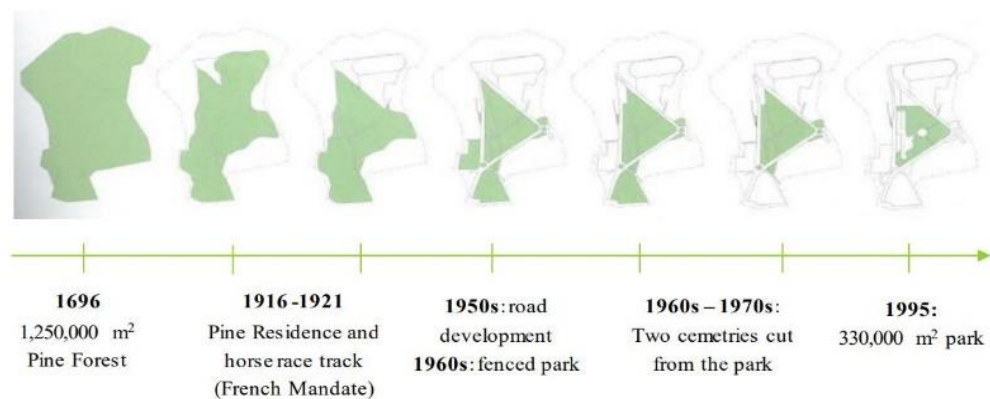

1696	1916-1921	1950s: road	1960s – 1970s:	1995:
1,250,000 m²	Pine Residence and	development	Two cemetries cut	330,000 m² park
Pine Forest	horse race track	1960s: fenced park	from the park	
	(French Mandate)			

Fig.14: Historical Development of Horsh Al-Sanawbar
Source: Shayya, 2010

3.2 Urban Analysis of 'Horsh Al-Sanawbar'

Horsh Al-Sanawbar is located in the heart of Beirut, in the midst of three diverse locations. Horsh Beirut is a 30-hectare triangle-shaped space on the west by the Qasqas neighbourhood, the resident of the French Ambassador (La Résidence des Pins) on the north-east, as well as, surrounded by Badaro, and Chiah in the South-East. Furthermore, the park's position is. The park's location is furthermore, marginal- that is at the edge of Beirut's municipal boundary, and alongside the old demarcation line. As previously mentioned, due to its significant location, the park enhances the quality of life through various aspects. The accessibility to the park relies on three main entrances from the high fence surrounding the park. Each entrance is from one of the neighbourhoods mentioned earlier- causing a social strain amongst the community.

Close examination of the approach to the park have shown that Qasqas entrance is currently open, and Badaro's entrance as well (open in May 2015), except for Chiah's entrance which bas remained off-limits to public access due to security concerns ever since the civil war. While the majority of visitors (75%) enter the park from the Badaro entrance, most of them actually reside in Chiah. (Shayya, 2010).

Fig.15: Horsh Beirut Within Three Neighbourhoods

Fig. 16: Road Map, Site Surrounding Context, and Building Zones for Horsh Beirut
Source: Stephan, 2019

An urban analysis has been created, and as can be seen in Fig.10, Chiah residents constitute about 19% of the park's users, and Badaro residents are almost the same with 18% of users in the park. On the other hand, only 5.6% of the park's users are Qasqas residents. Given this data, it is clear that there is an unbalanced relation with each of the three bordering neighbourhoods surrounding the park(Maamari, 2017).
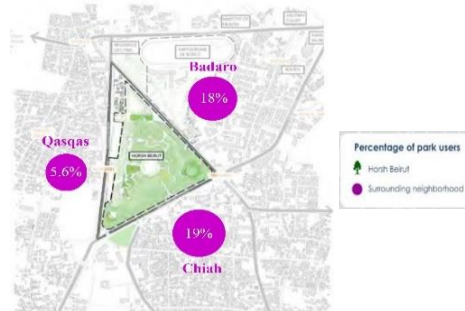
Fig.17: Percentage of Urban Park Users;
Source: Author

3.3 Attributes of 'Horsh Al-Sanawbar'

The largest open public space in Bierut, Lebanon, which is Horsh Al-Sanawbar, will be analysed by its attributes- as previously mentioned.

a) Uses and Activities:

Numerous studies in several cities have demonstrated that the actual use of open public spaces are significantly impacted by human perceptions and preferences of such spaces (Francisco, Sonia, Jordan, 2016). Open public spaces that promote a variety of activities and uses which attract people of different socio-economic background, different educational background, and age groups- whether children, women, older people, low-income groups- usually enhance the social interaction and flow of ideas between people, and inevitably create a socially diverse open public space for the citizens (Jacobs, Appleyard, 1987) (DETR and CABE, 2000) (Carmona, 2010). Jacob (1961) also asserts that "diversity" is an essential and a vital characteristic of a vibrant urban place (Jacobs, 1961). George and Steve (2010) describe a space that is shared and used effectively by various groups and individuals as "animation". Where such spaces meet the humans needs in open public spaces (Varna, Tiesdell, 2010). The term animation, according to Oc & Tiesdell (1999) refers to the livelihood of a spaces where the presence of people, activities, accessibility, and inclusion throughout the day occur within the open public spaces (Oc, Tiesdell, 1999). In light of this, Carmona further emphasis "animation" as an open public spaces which encompasses dimensions like comfort, relaxation, passive engagement, active engagement, discovery in and visibility (Carmona, Tiesdell, Heath, Oc, 2010).

As a result, from the above discussion of open public spaces, different groups of people within a space is directly tied to the diversity of activities performed- thus enhancing engagement. Thus, the "more public" situation in open public spaces encourages the active and passive engagement- or as referred to bas Jan Gehl- supports social and optional activities. Some proper lights for nigh walks and certain pathways for jogging encourage younger and elderly people to engage within the space and increase attractiveness (Gehl, 1996).

Horsh Al-Sanawbar, contains several benches- which promotes passive engagements- and allow people to relax, observe their surroundings, and interact with each other. Through urban analysis of the users and activities in Horsh Al-Sanawbar, it is prominent that adults and elderly are the prime users of the space, as people like strolling, jogging, relaxing in the park, and sitting on benches for observing the trees along the park.

Nonetheless, people are drawn to bio-diversity, especially since it has been lacking in Beirut. Where users can enjoy beautiful scenic beauty and watch birds in their natural habitat. Bio-diversity also acts as buffer zones and shields which act as a "barrier from the outside world".

b) Access and Linkages:

- **Connectivity:** Two important qualities are used to measure the physical configuration of the open public space: centrality and connectivity. Diverse social groups are usually present anc come together in places with centrality and better connectivity- such as open public spaces strategically located alongside the city's movement pattern and witness substantial potential movement from surrounding neighbourhood (Hiller, 1996). Thus, poorly-located open public spaces within the city, witness little to no activities- not matter its design- unless an increase in connectivity occurs between both entities occur.

In accordance with the above, it can be clearly seen in figure 18, that Horsh Al-Sanawbar is located between three dense neighbourhoods and surrounded with sufficient vehicular and pedestrian networks which offers visual access and is near to high population levels. Hence, Horsh Al-Sanawbar is visited   the findings at open public spaces showed that the most preferred open public spaces are those which are closest to where the visitors live. Hence, Horsh Al Sanawbar, is frequently approached by people who are close to the residential areas.
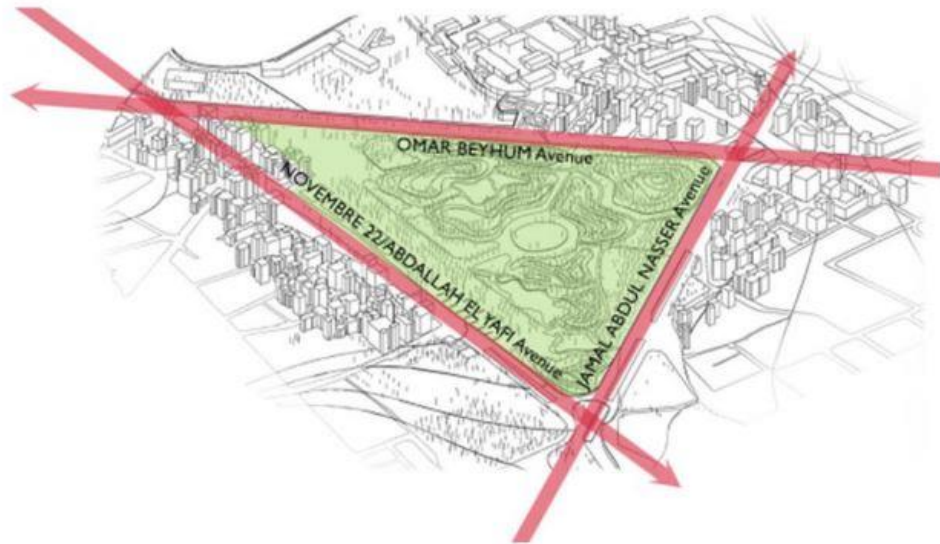
Fig.18: Connectivity of the Open public space with surrounding context
Source: Stephan, 2019

- **Accessibility:** Physical and visual access can be studied regarding this attribute. Where the ability to clearly view and see the inside of a space is known as visual accessibility. Whereas gateways, or main pathways leading to the open public space represent physical accessibility (Porta, Latora, 2008). Despite Horsh Al Sanawbar's unique location within the city -connecting three distinct neighbourhoods, it is however, not very accessible to the general public from other locations due to security reasons. High fences surrounding the site limit the visual access of passers-by, reduces permeability and acts as a physical barrier. On the other hand, the lack of explicit entrances and thresholds allow greater access into the space.

c) Comfort and Image:

- **Comfort**: In order to travel about a space conveniently and stress-free, a user must first feel safe, secure, and at ease (Carmona, 2014). Those feelings are directly related to the degree of open public space's ability to promote a sense of safety, vegetation and greenery, benches for seating, walkable pedestrian paths, efficient security measures, and ease of access to the space (Whyte, 1980). The design of open public space's street furniture is vital, sitting area, shade and shelter, and landscape elements, amongst other physical characteristics highly contribute to a sense of belonging and comfort within the space (Lang, 1987).

    Horsh Al-Sanawbar consists of several ladnscape elements which encourages people to wonder in the space. Some of these features include water elements (fountain), 12 benches for seating convenience -given that elderly people visit often as previously mentioned-, shrubs and trees that provide shading throughout the day, as seen in figure 19 (shade for 6 hours), and harscape paths for jogging and improve walkability.

Fig.19: Activities that enhance the Image and Comfort within the space
Source: Lebanese Architecture Club, 2016

- **Perception of Safety:** the degree to which a public space is used strongly depends on how safe it is -as perceived by people (Dempsey, Bramley, Power, Brown, 2011). According to Stamps (2005), individuals favour places with greater public circulation and higher openness level is directly linked with the perception of safety. The activities and various uses within the space are impacted by the design of both components: the circulation and the degree of openness. Accordingly, it is evident in the open public space that individuals prefer locations that are well lit and have better visibility (open space)- which increases people's perception of safety within the space.

Horsh Al-Sanawbar, in this case, contains dense vegetation all around it, which lessens the degree of openness, and thus lowers the safety perception measure within the space. However, the physical conditions, people's interactions, diverse activities, maintenance, and the high number of users within the space contribute to a high sense of safety within the open public space.

Fig.20: Sufficient amount of openess and high fence to enhance safety measures
Source: Nahnoo, 2018

- **Vegetation:** People's satisfaction within the open public space usually depends on physiological needs such as environmental comfort, shade from sun, wind and rains, and sheltered spaces. A higher sense of belonging and self-esteem occur when these factors are met (Maslow, 1943). A suitable microclimate- including, shadow, temperature, sunlight, and wind, is crucial for encouraging outdoor activities in public open spaces, as conducted from literature regarding the influence of environmental elements on human behaviour (Bosselmann et al., 1984). Open public spaces serve as a catalyst for social interactions -whether in winter or summer. For example, even though sunshine has a significant role in providing comfort throughout the winter, people seek shaded areas during the hot summer months. Therefore, the outdoor activities within the open public space is supported by providing micro-climatic conditions, which become necessary.

It is established that vegetation, has a significant influence in promoting climatic comfort. Given these statements, Horsh Al-Sanawbar, includes high number of vegetation- trees and shrubs, which enhances the people's attachment to their environment (Chen, Qiu, Gao, 2018). The site allows a special relation between the user and the space, where wildlife is highly appreciated and users like experiencing the greatness of nature. Nevertheless, vegetation helps in reducing the noise pollution which gives people an "escape from the busy city", since the open public space is surrounding by three dense neighbourhoods.
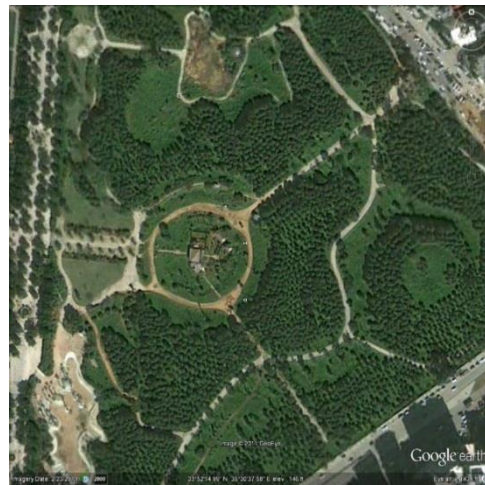

Fig.21: Arial Image showcasing the dense amount of vegetation in Horsh Al Sanawbar
Source: Google Earth, 2022

- **Maintenance:** The friendly atmosphere, and positive ambiance within the space, refers to its "civility"- related to a how a public place is handled, cleaned, managed, and maintained. It's important for the area to appear welcoming and well-kept to maximize the attraction of people into the open public space. Krellenberg et al. (2014) discovered that, regardless of the open public space's proximity to the users, well-maintained open spaces with better facilities draw the attention and attract people from different socio-economic backgrounds (Krellenberg et al, 2014).

After an urban survey in the site, Horsh Al-Sanawbar seems to be moderately well-maintained and clean with the presence of dustbins. However, the lack of washrooms within the large open public space reduces the level of comfort and maintenance within the space.

- **Imageability and Attractiveness:** According to Lynch (1960), imageability is a property of the physical environment that provides viewers a vivid mental picture (Lynch, 1960). People are more likely to return to places where they experience and experience good feelings, images, and meanings since they find them comfortable (Peters, Henk, 2011). According to studies on environmental psychology, an individual's assessment of a location is influenced by imagery, meaning, and experiences in other contexts (Glifford, 2014).

d) Sociability:

The ability of the environment to meet both special needs for gathering, discussing, expressing, displaying, debating, demanding, and even protesting can be referred to as sociability. Open public spaces act as spaces of grandeur for social interactions and encounters between people of different customs, and backgrounds (Elsheshtawy, 2011). Open public spaces not only offer several services and activities, but also the quality of the space contribute to the area's social and practical aspects. Open public spaces, nevertheless, become more meaningful when they promote sociability and activities that have symbolic and cultural significance to people, since it enhances their sense of belonging (Dempsey, Bramley ,Power, Brown, 2011).

- **Active and Passive Engagements:** Two types of engagements are present within an open public space: passive engagement and active engagement. The passive engagement usually promotes a sense of relaxation, and explains the need for people to interact with the surrounding place without getting actively involved. An example of passive engagement is observing nature and watching other people's activities within a space (using sitting places adjacent to pedestrian movement). On the contrary, active engagement entails a more direct interaction with the environment and its inhabitants. Hence, some people favour places which offer opportunities for viewing people and biodiversity, whereas some people prefer direct contact and interaction with people- whether family, friends, or total strangers within the open public space. Lively and interactive environments usually provide opportunities for both engagements simultaneously. However physical activity is usually encourage in today's world, thus the design of open public space should reflect this need through encouraging walking, exercising, etc. (Rey et al., 2019).

  Horsh Al- Sanawbar features passive and active engagements, where elderly people usually enjoy both, they prefer passive engagements as: sitting on the benches and viewing the people within the open public space, as well as, having conversations with their friends or younger people. Between the hours of 5:30pm and 7pm, people's active engagement is at its peak, where, according to the users in Horsh Al-Sanawbar, "the sun is tolerable and the approach to reach the open public space is acceptable". People also enjoy the walking and jogging, given that they can view the trees and nature along their stride.

3.4 Different perspective of public on 'Horsh Al-Sanawbar'

In order to achieve credibility and the ability to involve people and understand their needs, the research required to meet a sample of users within and alongside the edges of Horsh Al Sanawbar Park. Two field methods will be used, which are holding interviews and giving out a questionnaire.

3.4.1 Conducting Interviews

Face to face interviews were held from 17 to 21 March 2022, targeting people from various age groups- young adults to senior users- who are benefiting from the space inside the park or around it, to further understand their positive and negative view upon this green feature in the midst of the city. Three important interview questions were asked:

a. How often do you take advantage of this large open public space?

b. What activities do you usually do in the park?

c. From your point of view, what aspects do you think this area needs to enhance the quality of life within the city?

Some samples of the conducted answers include:

Mohammad Itani, 36 years old:

"My work is not so far away, I didn't usually pay attention to it, but due to the economic crises, I am now walking way more than I used to, so I pass by the park almost everyday now, sometimes when I get out of work early I like to just sit and relax in the park, I feel it's my way to escape the busy loud noises outside. I would prefer if there were actually things to do such as the ability to rent a bike, or other activities that might bring people closer to one another. I have aslo seen many project where they take advantage of natural components, so I believe that can be achievable here as well, given the huge biodiversity here."

Ali Mokdad , 74 year old

"I love this park, I come here almost every Saturday because some days it's closed. Thank god there is this green space left in the city to let us breathe pure healthy air for a change, other than the pollution from vehicles that we got used to. I come here with my wife and sometimes with my grandkids, they like to run and play around freely. I also meet my friends here every once in a while, we play 'Tawla', and reminise old days and memories we have once shared in this park. I wish there were more seating spaces, tables and shaded areas so people would be more excited to come in all seasons to enjoy."

3.4.2 Questionnaire

A closed-end questionnaire was established and handed out to 150 people, targetting young adults and seniors, between the ages of 20 and 80, with different economic and social background; which are considered the catalyst for a successful open public space to be generatedand. Five questiones were asked:

a. What is, in your opinion, the most appealing and successful characteristics in Horsh Al-Sanawbar, that pulls you to visit this space regularly?
b. What are the greatest threats that are currently facing this site?
c. What are the main activities performed in this site?
d. Would you agree upon expanding Horsh Beirut to become as one entity with the Hoppodrome located infront of the site?
e. What possible vision might you have for enhancing the quality of life within the park?

4. FINDINGS:

To analyze the answers mentioned in the questionnaire forms, the following pie charts are formed based on the sample groups' answers:

Chart 1: answers of question a: What is, in your opinion, the most appealing and successful characteristics in Horsh Al-Sanawbar, that pulls you to visit this space regularly?
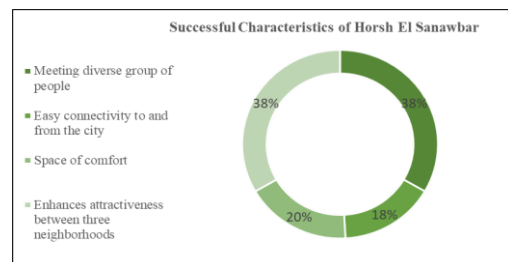
Chart 2: answers of question b: What are the greatest threats that are currently facing this site?
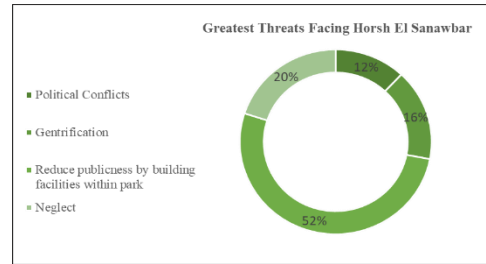

Chart 3: answers of question c: What are the main activities performed in this site?
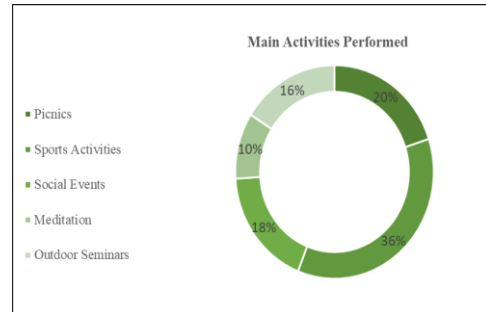

Chart 4: answers of question d: Would you agree upon expanding Horsh Beirut to become as one entity with the Hoppodrome located infront of the site?
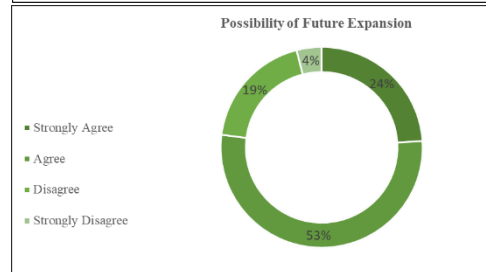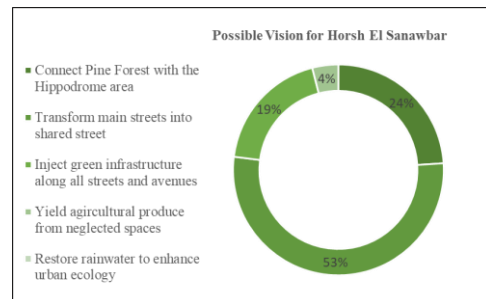

Chart 5: answers of question d: What possible vision might you have for enhancing the quality of life within the park?

5. DISCUSSION

Based on the previous analysis of the questionnaire results, the findings emphasized the importance of open public spaces not only for enhancing the quality of life within the city, but for enhancing the social and economic, and environmental aspects within the built environment. The majority of the answers showed the fear of the 'only green space they have' to become less public, which lead the people to agree to the idea of enlarging the open public space that they consider the main point of attractiveness. The paper explores various attributes in open public spaces that constributes to the potential of a space to become successful in developing cities through:

Attribute of Imageability and Attractiveness	Attribute of Safety and Comfort	Accessibility and Connectivity Attribute	Attribute of Heritage Preservation	Attribute of Injecting Green Infrastructure	Revitalizing the Urban Forests Attribute

Fig.22: Potential attributes of open public spaces in cities
Source: Author

- The physical environment's quality or trait gives observers a strong mental picture. Therefore, it is important to improve a space's imageability and beauty so that people will feel comfortable and form pleasant feelings, images, and meanings- hence result in an economic beneficiency as well.

- The design of the space has a direct impact on the openness and circulation of the, which inevitably affects the uses and activities performed in the space. Accordingly, implementation of wider stone safety walls ensure safety and causes a sense of comfort away from the busy streets surrounding the site.

- Attribute of connectivity must be taken into consideration through two key qualities that are: centraility and better connectivity. The connection can determine the level of impact the space would have on the quality of life. Hence, a vision to connect the Pine Forest (Horsh Al-Sanawbar) with the Hippodrome can be achieved by effective integration of a tunnel or underpass along Omar Beyhum St. The connection functions as a pedestrian continuity of the park without disrupting circulation at neighbourhood scale
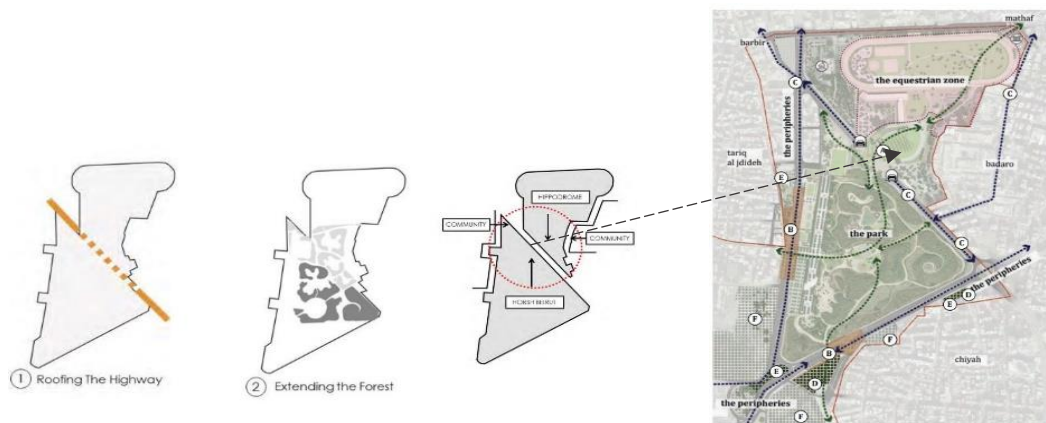

Fig.23: Future vision for Horsh Beirut to enhance connectivity and accessibility
Source: Nahnoo NGO, 2022

- Accessibility is vital for open public spaces. Therefore, transforming main streets into shared streets to ebcome the main entrances onto the Horsh. Shared street typology, for instance, turns the road from a vehicle-centered area to a human-focused one from Jamal Abdel Nasser St. to November 22nd St. The usage of technological aspects such as paving finishes, reductions lamps and animating street-scape, can help achieve this vision.

- It is importannt to understand the relationship between humans and their physical environment, since it acts as a catalyst for urban design. Consequently, it needs to be carefully understood the relation between people and how they interact within the space, both natual and built. To maintain the collective memory in this space- given Horsh Beirut's rich historical background- a monument or exhibition might be placed within the park.

- Horsh Beirut can be injected with green infrastrcuture alongside the streets and avenues in the site's context. This can be achieved in the form of bioswales and recessed planted beds to receive impervious surface runoff and manage storm water while providing street greenery. Porous paving, nevertheless, can be applied along the sidewalks and under street parking.

- Grow Urban Forests in all residual public spaces, such as: left-over public spaces, roundabouts, and neglected medians. Inevitably resulting in an essential tool for climate change mitigation.
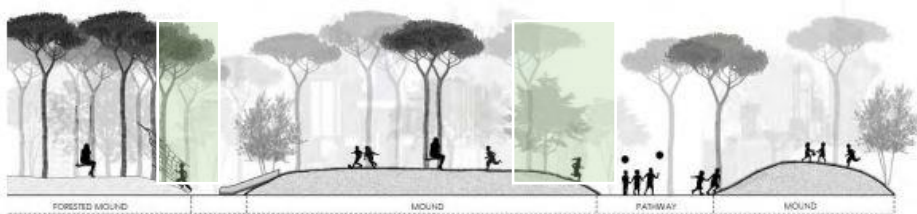

Fig.24: Section showcasing the activities and urban forest in the park
Source: Nahnoo NGO, 2022

6. CONCLUSION

Finally, the paper raised several issues, which ended up with a group of conclusions such as:

a) People relate to open public spaces as a place to 'escape'. Open public spaces should not be sought upon as a luxury, but rather dealt with as a necessity, for the well-being of the residents and for social enhancement.

b) Political strains should not be reflected upon open public spaces, where serious measures and rules should be taken regarding the conservation of park.

c) Open public space does not only increase the quality of life in the surrounding neighbourhoods, but also can become a touristic attraction space- acting as a space of grandeur- which inevitably leads to economic enhancement.

d) The future proposed vision for extending the park with the hippodrome is highly antisipated by the people, since that would

e) Strict rules must be applied within the city to conserve the open public space, and protect it from any further damage/ alterations.

f)) Every city is recommended to provide a minimum of 9 square meters of urban green space for each person provided, according to the World Health Organization (WHO), that should be accessible, safe, and functional. Therefore, the park should have future visions for enhancing the large green spaces that it currently has in order to not only benefit the residents, but also the ecosystem for the future.

g) Successful open public spaces and well-used open public spaces are seen to be an aessential requirement in any city around the world, especially in developing cities.

h) Open public spaces in the 21st century, requires a strict demand for 'understanding' the surrounding environment and the implementation of advanced technologies, to inevibtaly promote a more sustainable city and support the SDG7- affordable and clean energy.

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