Upgrading Quality of Human Behavior through Positive Vibes Induction in Urban Spaces

(The Case Study of Al-Korba square and City Square, Cairo, Egypt)

By

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A thesis for the requirements of degree fulfillment

Abstract—Space has no meaning in itself. It gains meaning and value when it is inhabited by human beings and serves as a place for their activities. These spaces should work for the well-being of its inhabitants. A city requires designed spaces to cover the public activities of the people; these activities are allocated in a manner that elevates the happy temperament for its users. Life stresses affect public health tremendously. The aim of this thesis is defining specific factors and elements to be considered through urban public spaces design to promote better public health. Population health should target both physical and mental well-being, to alleviate mental and psychological illness. A good urban designed space puts the targeted population welfare as a priority. Many urban designers face challenges in their designing concept, when considering public health issues. There is a common saying, "No health without mental health", consequently, considering a range of opportunities for urban designers to induce many elements that upgrades the environmental quality of spaces to achieve optimum health outcomes, thus setting the users in their best comfort zone, impacting their mental and psychological well-being. Good mental health is essential for well-being and success, affecting our lives in every aspect. Good mental health boosts enjoyment, coping skills, relationships, educational achievements, jobs and careers and consequently, minimizes physical health problems. On the other side, mental health problems are of great complexity and its deterioration impacts our productivity and success in different sectors of life. Urban design can play a great role in prevention of psychotic problems and eliminates them. Recently, there are elevated risks of mental disorders within the residents if the city. Mental health well-being is crucial to achieve a resilient, sustainable city.

Index Terms— urban spaces design elements, landscape in urban spaces, factors of mental well-being in urbn spaces, festivals and urban spaces, impact of historical components on mental health in urban spaces, effect of greenery on human beings, comfort applications in urban spaces.
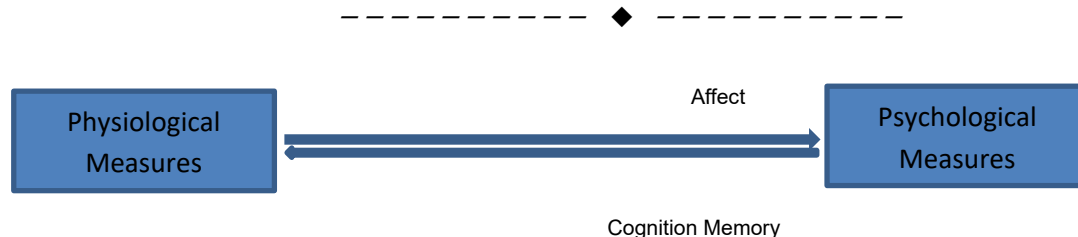
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Figure 1. The Notion of Happiness, Frey and Stutzer 2002.

1. INTRODUCTION:

Human beings are social creatures. The history of urban life verifies the fact that the liveliest moments of human life is

shaped in public spaces. Human beings need a suitable ground to develop their social interactions; public spaces work to fulfill the human need of expanded social interactions. Urban spaces are to offer diverse experiences that help to elevate the positive moods in public. Understanding the different aspects of cities and setting places where human beings can freely attend, satisfy their primary needs, and develop interactions are important concerns. It is quite possible that a designed public space in a city is not favored by the public and is not successful in its case. The success of a public space is determined by several factors; it is not necessarily related to the factors involved in the creation of the space. Positive effect refers to the experience of pleasant positive emotions, whereas negative effect reflects unpleasant negative emotions. It has been suggested that low positive or high negative effects are respectively associated with depression and anxiety. The association between active lifestyle among young elderly and urban spaces design factors has attracted the attention of researchers from different disciplines. In the health field, researchers have found that active lifestyle among young elderly is tied to their mental health (Abbott et al, 2004; Larson et al,

2006). Life satisfaction, the cognitive aspect, refers to a subjective global self-assessment of one's quality of life. Each individual has specific criteria, as each individual place different value on their different domains of life, happiness as indicated by life satisfaction measurements tend to be based on the assessment of life as a whole. In this thesis, it is important to consider specific key factors that act integrally and mutually to achieve the perfect picture of an urban space, promoting physical and mental health. These factors would be induced in the framework for planners and urban designers to be applied on any project and achieve diversity of opportunities within each urban space and create the optimum embrace for a healthy environment. Sociofugal space result in keeping people apart and suppress communication, affecting the mental health drastically, thus impacting the physical well-being and deteriorating the health status. Sociopetal space does just the opposite, resulting in bringing people together and stimulates interaction as routes merge and overlap. Sociopetal spaces are characterized by the ability to invite people to gather/socialize and help in connecting communities. They comprise components fundamental for a convenient context for diverse acyivities. Three main factors epitomize such spaces:

- Giving priority to pedestrians.
- Having sensory richness.
- Holding human scale.

These spaces should encompass specific qualities:

- A place that meets psychological needs.
- Safety and security needs.
- Provides a sense of belonging.
- An environment in which users can feel competent (self-esteem).
- An aesthetic that it's the context.

The thesis would comprise an analytical description for two case studies encompassing urban squares of diverse activities allocation; conclusively, highlighting the pros and cons of each design and specifying the elements that participate in the achievement of the user's well-being; physically and mentally; thus recommending them in any urban designer's conceptual project.

2. METHODOLOGY

Active lifestyle is an important part of people's healthy ageing. People are usually active but to varying degrees. The study aim to measure this variation among different case studies, in an attempt to reach a detailed identification of the features and elements that should be involved in the design for open spaces, aiming at increasing activities within its premises and in the process, assuring their existence among a" HAPPY OPEN SPACE" through incorporation of factors concluded by the end of this research work.

3. LITERATURE:

Green areas and other factors offer innovative approaches to increase the quality of urban settings, enhance local resilience and promote sustainable lifestyles, improving both the mental and physical health of urban spaces' users. It is well known that everyday access to safe, local, and good quality landscaped area has been shown to encourage higher levels of physical activity among the population and holds mental health benefits as well.

The identification and analysis of the specifications impacting the overall healthy well-being of the urban spaces' users is fundamental:

3.1 Basic Specifications:
3.1.1   Functionality.
3.1.2   Historical Image.
3.1.3   Naturalism.

3.2   Sophisticated Specifications:

3.2.1   Human Needs:

> A. Green Spaces.
> B. Safety Measures.
> C. Human Comfort Applications.

3.2.2   Humanizing Urban spaces (Scale considerations).

3.2.3   Festivalization activities within urban spaces (Induction of happiness and festive moods).

3.1   Basic Specifications:

3.1.1   Functionality:

Functional factors include geographical location, accessibility, neighbors, physical elements of the space, geometry and compatibility, security, the attendance of people and etc. The influence of each of these factors on the success of public spaces is different, and each of them is susceptible to oppose the other one. Popularity of a space increases drastically if its location is on the way of daily public commuting, its closeness to the urban public transportation, and the multiple functions of the surrounding area of a public space in a way which cover the primary needs of people. In addition to that, accessibility of the space to different groups of people, convenience of the space for feeble people (children, adults and disabled people), the possibility to develop influential social interactions, pleasant view, preserving spatial proportions, using material corresponding to the spirit of the space, implying a sense of security during the different hours of the day and night, and etc. A successful public space may not have a historical background, but due to its functional factors it will be able to impact its visitors positively and sufficiently touch their wellness. It is necessary to pay attention to the functional elements of the spaces. Piazza Del Cambidoglio, one of the spaces in Rome, is not at present a successful space. Though it is historically very valuable, due to some functional deficiencies of the space such as difficult access- despite its unique physical design-it is not a dynamic, lively urban space.

3.1.2   Historical Image:

Heritage is essential in shaping the identity of the people and what they value. Heritage provides clues to the society past and how they evolved. A city is shaped by its citizens' public memory- common mental image. Elderly people have direct experiences about the spaces of their cities. Over time, people have witnessed the urban changes. The youths too, despite their fewer memories, receive the mental effects of dependence on urban spaces with more sensitivity. The passage of time has equipped cities with historical values, rendering them valuable for human beings. This is to the extent that the strongest factor in deciding the location of a successful public space is to consider the existence of public memory about that place (Mansouri, 2009). This factor affects the continuity of life and the success of public spaces too.

3.1.3   Naturalism:

The natural capacity of a city plays an important role in the development. Sometimes a river works as the primary core of a city and serves as its developing factor. Similarly, natural factors influence various parts of the city such as public spaces. Sometimes the presence of a lake leads to the emergence of a public space. If natural factors are the cause of a public space generation, it is probable that this space will be highly successful. The deficiency of natural factors influence in the creation of public spaces could be compensated by the addition of artificial man-made naturalistic elements through designing various landscape features and these play a great role in impacting people's moods and lives.

3.2 Sophisticated Specifications:

3.2.1   Human Needs:

Several theorists and urbanists prioritized the human needs among urban and public spaces into the achievement of socialization through the people's perception.

As Appleyard (1979) states, people perception analysis is the way to support socialization attributes and maje positive perceptions for people to gather and socialize in public spaces. He classifies the perception process into: operational, deductive and emotional reaction perception. Gehl (1987) defines he primary quality affecting positive perception of sociopetal spaces: pleasure, protection and comfort. Space syntax theory states the more visibility field for a space, the more it will be mental appealing. Spatial integration on the other hand is strongly related to people's flow and these both should work together to affect and promote social activities taking place in spaces.
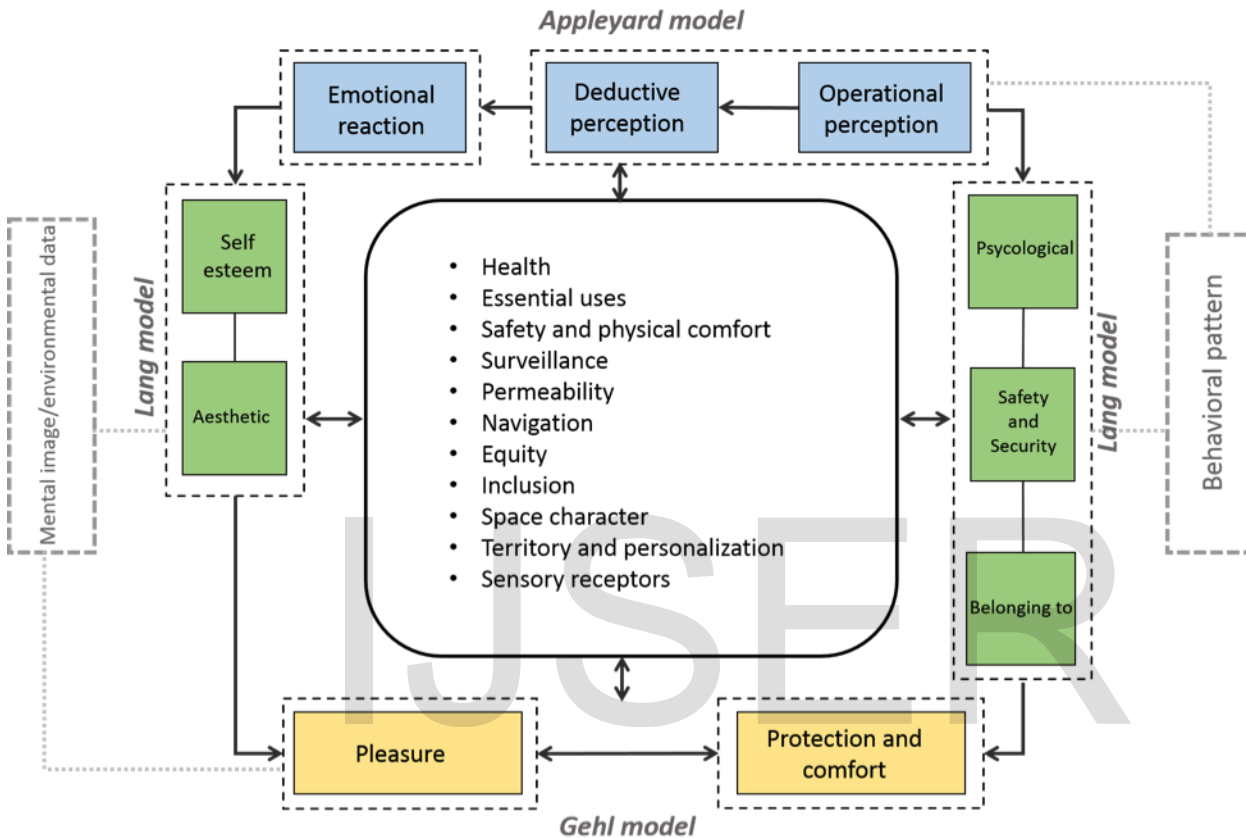

A. Green Areas:

The physical built environment and all its related outdoor spaces and landscaped zones bear an immense influence on the mental health of the users. Green spaces are the softscape that lightens the harshness of a built environment, including parks, gerdens, playing fields, woods, green corridors, rivers, canals and other water features. These are the breathing healthy spaces that induce positive impact on the well-being of people. Sometimes, they are referred to as "green and blue spaces".

A survey of 10,000 people in the UK deduced that communities dwell in greener urban areas showed lower mental distresses and higher levels of well- being. Another study also found out the connectivity between more trees per kilometer of street and a decrease of 1.18 antidepressant prescriptions per thousand populations.

Green spaces promote and facilitate physical activity, which is greatly beneficial for mental health. Exercise affects positively people's general self-esteem and sense of well-being, reducing symptoms of stress and anxiety.

Regular exercising helps alleviate symptoms of depression and has the same effect as anti-depressants. Exercise as well helps in prevention of some symptoms associated with attention deficit disorder, dementia and even schizophrenia (disrupted emotions and difficulties of thinking). Provision of differently designed green spaces for encouraging exercising has direct effect on physical health; thus, alleviating risk of diabetes and cardi-vascular diseases.
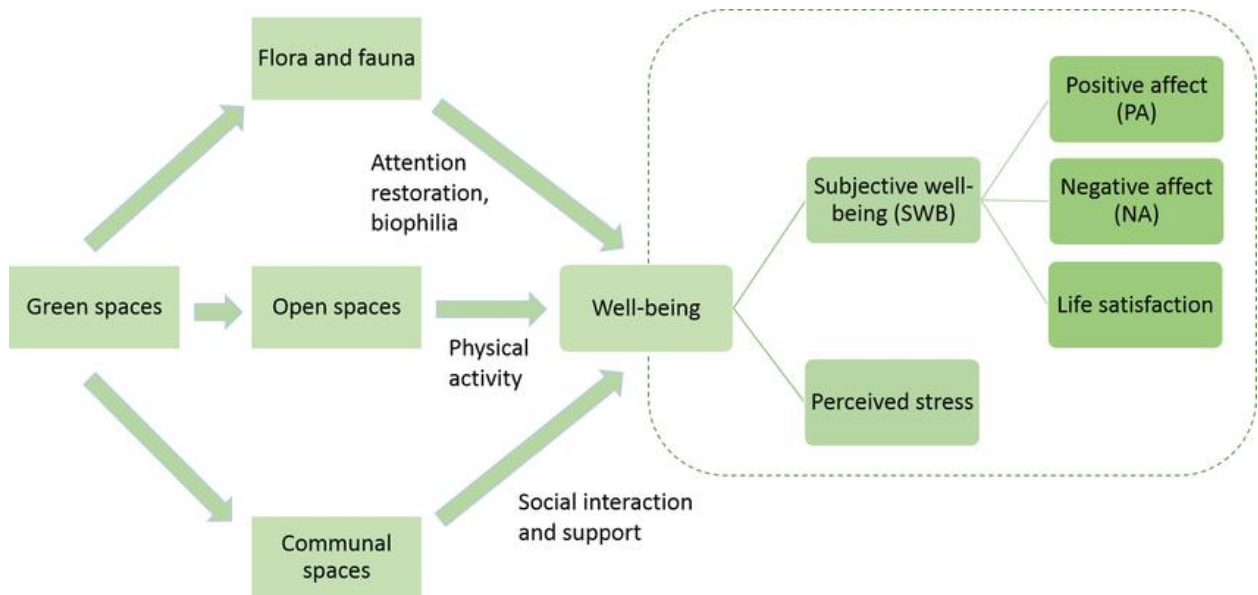
The high psychological demands imposed by cities have driven a desire for greater contact with nature. The effect of park usage and accessibility on well-being is assessed by considering the results deducted from the following questionnaire:

Respondents are to be asked their socioeconomic background, namely their age, gender and income per household capita.

The questionnaire aims at understanding their state of health by asking about their level of physical activity and serious health problems.

The questionnaire should comprise their personality traits of extraversion and neuroticism, or emotional stability. Extraversion is associated with energy, sociability and assertiveness, whereas emotional stability refers to the tendency to experience negative emotions such as anger and depression easily.

The questionnaire also is concerned with the respondents' use and access of green spaces.

There are three primary theories, explaining the association between open green spaces and people's healthy mental health and well-being:

Edward Wilson's Biophilia theory: This theory argues that humans have a close relationship with the natural world and as such, a predetermined biological need has evolved that drive humans to subconsciously seek contact with other species. Roger Ulrich: Ulrich's theory maintains that natural environments promote recovery from stress by responses to exposure, including distance from everyday demands, possibilities for aesthetic appreciation, and activity driven by interest. Rachel and Stephen Kaplan proposed the attention restoration theory: it argues that nature environments exert benefits by relieving "attention fatigue' through distancing people from performing tasks that required prolonged maintenance of attention without the need for concentration.

B. Safety Measures:

Safety is one of the aspects of quality of life in the society, as people, to a sufficient degree, need to be spared from criminal acts and associated forms of behavior. The feeling of the citizens that they are completely safe and carefree in urban public spaces bears great beneficial impact on daily cultural, social and economic life of the city. Application of measures of prevention in urban spaces design is a must, to eliminate any sense of dangers; thus boosting a securable mood and danger-free environment; maximizing the opportunities for experiencing the public space and promoting a healthy mental being conclusively. It is essential to enable the citizens to have an opportunity to participate and express their perceptions and fears, provide their opinions and ideas. Therefore, conducting a survey and a questionnaire to be included in the design procedure is of great importance and should be prioritized in the implementation phases.

Regular maintenance of the open spaces plays a significant role in the creation of safety standards, including maintenance of vegetation, lawns, paths and grounds, waste removal and graffiti cleaning, replacement of street furniture and lighting.

Alien planning and design concepts gave priority to vehicular systems, without enough regards to pedestrian movements within overall urban fabric of city's morphology. Community open spaces, including neighborhood gardens, parks, campus open spaces, and streetscape is the spaces for family members to unite. Consequently, it is important to take into consideration the fact that children, ladies, elders and disabled have no easy. Or even appropriate direct accessibility to outdoor urban spaces, if safety standards are not available. The importance of pedestrian environment in the city is far greater than simply their aesthetic appeal. The psycho therapist Joanna Poppink mentioned that "Spending time in an outdoor café or bustling a shopping street is more than just a pleasant diversion; it is a necessary element of a healthy urban life". She believes that much of the fear and distrust experienced by urbanites is directly related to a lack of public spaces where different groups can interact. As a result, the urban designer's main concern is focusing on the main functions of urban open spaces to serve the needs of the users, providing democratic accessibility to all groups and allowing freedom of action, giving the opportunity for people to form a stronger image of the place in their visions. The connection between design, location, and use must be adhesive and mutual. Therefore, the survey for the typology of users of the urban space is of high priority, considering alternative of design and creation.

C.   Human Comfort Status:

It is essential to investigate the factors that achieve the optimum comfort for users of urban spaces. Thermal comfort in outdoors becomes a priority in this investigation; to come out with different kinds of adaptations that ought to be examined a physical and psychological level. There are two kinds of physical adaptation:

1.   Reactive, relating to personal changes (clothing insulation, metabolic heat with consumption of cool/hot drinks, spatial variation).
2.   Interactive, relating to interaction with the environment to improve thermal comfort.

Psychological adaptation plays an important role in evaluation of thermal comfort conditions within outdoors. Specific parameters must be investigated:

- Naturalness (an environment free from artificiality).
- Expectations.
- Past experience (short and long-term)
- Time of exposure.
- Perceived control.
- And environmental stimulation.

By taking such parameters into consideration, the design of urban spaces can be enhanced to improve thermal comfort and consequently, open urban spaces become more attracting and appealing for the diverse population.

Four different case study sites were employed in the city center of Cambridge to investigate thermal comfort conditions outdoors. Several interviews were held in different seasons for evaluation of comfort status. It was important to compare the recorded objective environmental parameters, as air globe temperature, wind speed, and humidity with the subjective human behavior and the interviews results. Definitely, thermal comfort conditions affect people's use of outdoor spaces. Comparison of objective with the subjective data showed the discrepancy between the two. The predicted percentage of Dissatisfied (PPD) compared with the corresponding Actual Percentage of Dissatisfied.

Outdoor spaces present few constraints. People sit there by their own free choice to enjoy the warm sun rays and fresh air, and look at other people. Generally, outdoor spaces provide the opportunity for people to socialize and mingle among the population; thus enhancing the psychological aspect through inducing positive vibes. Environmental stimulation is therefore important. The degree to which people want to 'charge up' their bodies with heat and fresh air is essential.
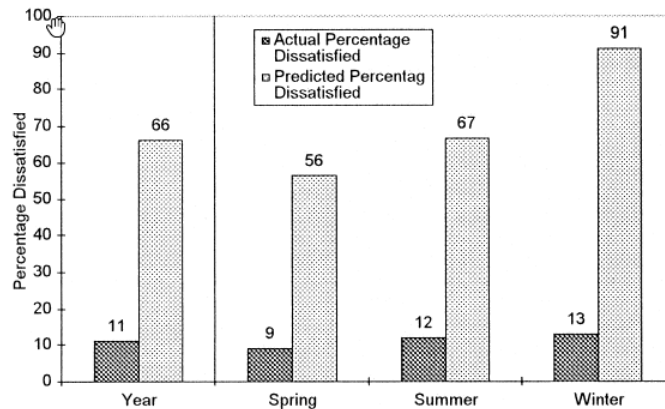
Comparison between Actual Percentage Dissatisfied and Predicted Percentage Dissatisfied.

The role of memory and expectations in achieving a successful designed outdoor space must be highly reflected, through meeting the people's physical and psychological needs and beautifying the surrounding experienced environment. Successful urban spaces attract people to come out of the building they are working in, or stop them while passing through the space, going elsewhere, and this indicates the positive comfort thermal environment. Psychological acceptance of the thermal conditions within the outdoor space is the key to optimum adaptation. The term "Adaptation" is used to achieve the optimum comfort status for users of open outdoor spaces to reach the most stable, balanced psychological condition; thus, a healthy mental being and the open space becomes an environment comprising most aspects that assist in the secretion of positive energy in the surrounding ambience. "Adaptation" is defined as 'the gradual decrease of the organism's response to repeated exposure to stimulus, involving all the actions that make them better suited to survive in such an environment." Adaptation has three parameters:

1. Physical Adaptation:
   Physical adaptation involves all the changes a person makes in order to adjust oneself to the environment or alter the environment to meet his needs; such as "spatial Variation", which involves choosing a place to sit according to comfort conditions; so people are free to move around, to sit in shaded area in summer, to protect themselves from the wind in winter or protect themselves from a damp space. Generally people choose their environment before sitting. Monitoring people's selection of seating areas with the diverse air temperatures demonstrates the intense impact of climatic conditions on people's attitude. Physical comfort is the road to psychological comfort.

2. Physiological adaptation:
   It is related to mechanisms of adaptation, mainly behavioral. Physiological adaptation implies changes in the physiological responses resulting from repeated exposure to stimulus, leading to a gradual decrease strain from such exposure.

3. Psychological adaptation:
   Different people perceive the environment in a different way. People's responsive reaction to a physical stimulus is not relating to its magnitude but depends on the information that people have from past experience of the open space. Thermal perception among users differs according to people's expectations, experiences, time of exposure and environmental stimulation.

Comfortable conditions have been regarded as those where occupants feel neither warm nor cold, as ambient conditions are neutral. Preferably, diversity in environment is recommended, as a static one becomes intolerable. The bottom-line is the design of open spaces is very important for the urban environment and an understanding of the wide range of effects influencing thermal comfort in these spaces will assist in designing spaces, encouraging public use, at different times of the year.

3.2.2   Humanizing Urban Spaces:

Spatial planning cannot be understood independently from its socio-cultural context. Humanizing urban environments makes settlements more inclusive, safe, resilient, and sustainable. Human centered spatial planning promotes walk able, sociable, and livable urban environments. Correlation of people's use and experiences to spatial attributes is essential in the design, as human behavior in the urban space is understood to be the result of the interaction between people and the spatial setting; it is also understood to be constituted, constrained, or mediated by the spatial setting.

Scale in Urban Space:

An urban space pertains specific characteristics that define the scale considered in its design. Traditionally, in cities, the scale of spaces was in relation to human dimensions and their needs. The scale of the built environment and open spaces ought to be in adequacy with the movement pattern. The increased speed of movement has greatly influenced the design of urban spaces and their features of scale. The scale establishes spatial intimacy in any public space, where the human was centric. Spaces in-between built form must be 'communicative', generating interactive nature of the public realm. The success in accomplishing appropriate scale in the designed fabric is reflected in the degree of intimacy of relations between the users. Unfortunately, the scale of the car is now dominant rather than the human scale in defining recent urban spaces. "The pre-dominance of capsuled movement has meant that the experience of physical space has almost become entirely visual. Space is no longer perceived directly, and even the scale of the space is experienced only in relation to the scale of the capsule. This filtering similarly distorts the relation between capsuled individuals, interpersonal relations are reduced to their visual components and individuals become images and unreal." (Banz 1970). As people understood the value of the human scale when creating cities, they first had to reflect on the human body. Human who have a horizontal sense of sight, allowing them to walk straight do not see much above them. While low buildings keep up wuth our "horizontal sensory apparatus", high buildings do not. In fact our angle of vision is limited to 50-55 degrees above the horizon, making it difficult to raise our heads. Impacting people's understanding of the space that surrounds them, theses sensors make it easier to experience low rise structures. In the book "Cities for People", Jan Gehl states that "from the street, we can only experience with difficulty events that take place higher up in buildings. The higher up, the more difficult it is to see. The connection between street level and tall buildings is effectively lost after the fifth floor. They no longer belong to the space and not within the range of perception to people. In fact, it is very easy for tall buildings to be disconnected from the context not take part in city life. Defining different experiences, smaller scales, in harmony with the human scale produce communication, warmth, closeness, and even contact in an urban environment. Influencing our senses of being in the space, it is easier for people to be around low-rise buildings. "The experience of comfort and wellbeing in cities is closely tied to how city structure and city space harmonize with the human body, human senses, and corresponding space dimensions nad scale". Basically, people's experience is largely determined by the scale of everything that surrounds them. Whether they feel like lingering in a space, moving around, or taking off; their behavior is directly related to the spatial proportions of the context. The more natural and unforced the experience is, the more people would want to stay in the environment. Urban spaces varied in plot sizes, affected by the added elements, drawing great impact on the scale. Political pressures affect the scale and physical properties of the urban space. They become out of scale or wrongly located or simply not implemented fully as planned; thus, failing in housing diverse activities or inducing social interaction.

3.2.3   Festivalization activities within urban spaces (Induction of happiness and festive moods).

Urban spaces are the mediator between people and their environment. Unfortunately positive communication between place and people is missing. Events play an important role in social engagement. Festivals are considered the most effective patronize for social formats impact on the spatial formation; s people are the main target for the

main target for forming spaces that comprise all the events that maybe permanent or temporary. The physical and non-physical components for spaces formation are neededto be identified to highlight the successful spatial expressions that strengthen the spirit of communication between people and develop a sense of place. Realizing the spatial settings and structure that enhances the existence the existence of festivals and events is required; thus inducing happiness in the visitors of the space and positively spreading a joyful vibrant mood leading to a maximum psychological well-being that stays in the memory of the visitors and achieves great attachment to the place adding to the their healthy mental status which is enhanced greatly by the powerful sentiments they encountered on attending the events within the space. As regards the effects of organizing festivals, they include the impacts concerning the subspace of socio-economic flows, the cultural and the image space. They offer the opportunity to pursue one's interest and participate in unique experiences; they also make it possible to develop urban culture and art. The local authorities encourage the happening of festivalizations and events, as they have become an economic key and represent an essential contribution to the urban economy as they raise the value of properties and attract commercial development.
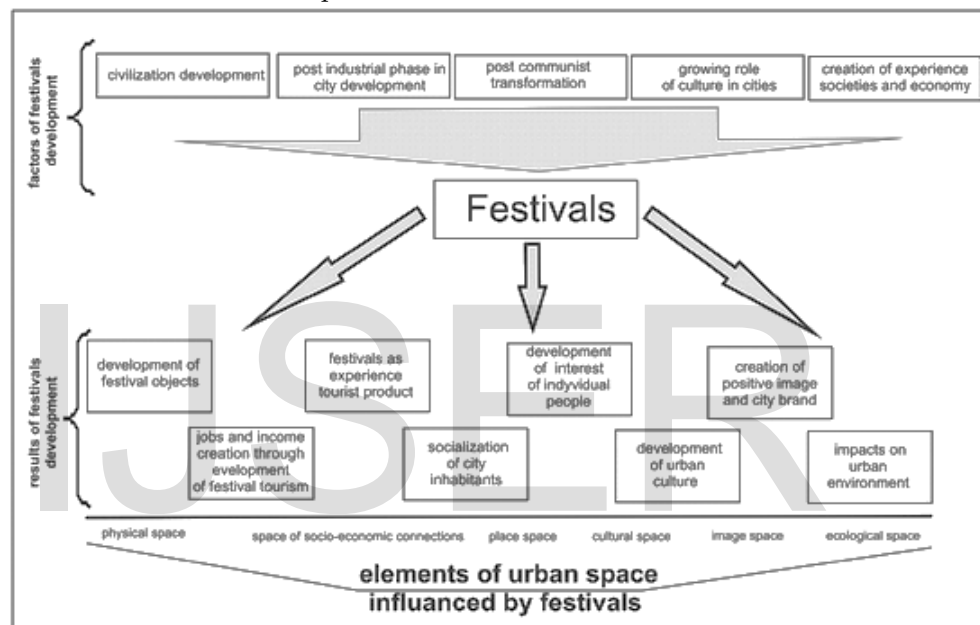
The Role of Festivals in the Development of Urban Spaces

3 EL-KORBA SQUARE IN CAIRO, EGYPT:

The historical Ambiance within El Korba Spine

3.1   Historical Background:

El Korba square acquires distinctive architectural style; situated in Misr El-Gadidah district. Its huge buildings on each side are uniquely designed by the Belgian industrialist baron Edwar Empain, and it was the inception of the famous Misr El-Gadidah with its historical arcades in El-Korba Square. It was established in the early 19th century with the intention to be situated in the heart of the city. It's considered to be one of the very old parts in Heliopolis, holding a wide variety of commercial and administrative activities. It's recognizable by its unique architectural building style that brings together different cultures

(French and Italian) with the Arab architecture. The Main square has an almost a triangular form that extends from Al-Ahram street starting from Heliopolis Hotel (recently Presidency palace) to Nazeeh Khalifah street (previously Baron street) which intersects with El- Thawra street to Baron Empain Palace. The square was named 'La Courbat' because of the unique rotating design of its street unlike other streets at that time as La Courbat means in Italian 'The Bow'. In the past days, the tram way used to take this round road on its route starting from Fouad street and during the journey, the Belgian tram conductor used to announce the arrival calling the street 'El-Korb', hence it became its common name.

3.2   Analytical overview of the square:

In this part, it is essential to describe profoundly the basic and sophisticated specifications of the context surrounding the main square 'El-Korba', to give the opportunity to create the actual mood the square exists in; thus concluding in a manner the probable psychological status of the visitors of this area, especially after exposing diverse visitors to a specific questionnaire, that is evaluated to deduce the factors of achievement of the mood concluded from their answers through the description of the physical, psychological, and mental status of each.

3.2.1   The Basic Specifications:

3.2.1.1   Functionality:

Modern-day Korba is a quaint shopping district that boasts original architecture, fascinating cultural sites as well as some of Cairo's finest cafes and restaurants.

3.2.1.2   Historical Image:

El-Korba district is internationally renowned for its architecture. Heliopolis architecture has its special features and details. These mainly include large terraces and balconies that are supported by columns and pillars. This architectural style developed in the early 20th-century. At that time the Belgian Cairo Electric Railways and Heliopolis Oases Company created this style to distinguish Heliopolis buildings. Heliopolis Style characteristics are mainly about revival of the Moorish, traditional Arabic, Persian, and European Neoclassical architecture styles. The avenues and palaces within this district resembles to a great extent the boulevards in Western Europe. Moreover, Art-Deco style inspired the buildings' decorations. The French Architects Alexandre Marcel and George-Louis Claude designed most of Heliopolis buildings. This is along with the Arab architect Habib Ayrout; thus the deduction of the Arabic Islamic style is rational. The buildings are noticeable with their grand scale, along with the simplicity of geometric forms. The columns

are detailed with Greek Doric style, while the Arabic details in the façade give a full sense of the Neo-Islamic.

The side-Arcade for pedestrians' Shopping activity

The Historical architectural Features in El Korba main spine (Baghdad Street)

3.2.1.3   Naturalism:

The emergence of El-Korba district is not of natural properties or causes. Heliopolis was built on the outskirts of Cairo in 1905 as an escape for the rich. Its founder Belgian Baron Empain settled in Cairo in the early 1900s and fell in love with Yvette Boghdadli, one of Cairo's most beautiful socialites. He decided to build to build a palace and develops Heliopolis for her. The Elites were looking for a new haven of serenity and elegance, so the construction and architecture of the palace, as the first building in Heliopolis, is top notch inorder to match the taste and social status of the Belgian royal. Unfortunately, many villas in Heliopolis District have been demolished to give way to the construction of new buildings; the interfaces of ground floors redecorated by shop owners without the slightest heed to the unique architectural design of the building.

3.2.2   Sophisticated Specifications:

3.2.2.1   Human Needs:

A. Green Spaces:

The Korba square with Baghdad Street, as a linear urban space, lack to a great extent the greenery feature. Baghdad Avenue comprises a central two-way main vehicular route with pedestrian routes on its lateral sides, defined by significant arcades only on one of its sides, with the deficiency of any softscape element that might have added majorly to the aesthetic value of the area. In addition, the traffic jam is highly recognizable and represents defying obstacle for pedestrians to cross from one side to another. The only greenery feature available within the area is located within the land area of the Presidential Palace, which is definitely inaccessible to the public and is gated in a manner to be concealed as well. The unavailability of comfortable seating areas within this precious historical zone makes it difficult for visitors to stay for a long period of time and enjoy the ambience of the space. The lack of convenient landscape characteristics defines the urban space to specific performance activities, as a passing through space, an excellent shopping center for pedestrians,

enjoyable private interior spaces within cafes and restaurants peripheries, but not within the public areas of the space.

B.   Safety Measures:

The arterial two-way vehicular route with an intermediate continuous pavement represent an impediment for most pedestrians to cross from one side to another, which in turns gives an anxiety feeling for most visitors to the urban space, acknowledging the precaution measures they should take upon the decision of crossing. Thus, the linear shopping space is divided subconsciously in the minds of the perceiver of the space into two linear side shops. Hence, driving to this linear urban space gives the visitor no choice but to park in the side of the store they are targeting, which in turns raises another problematic issue regarding the unavailability of sufficient parking lots. Accordingly, the decision of giving a visit to such linear shopping urban space is hesitatingly and the search for an alternative to meet the visitor's needs become a priority in a manner of avoiding such difficulties. In addition, the lack of appropriate landscape, especially the green factor, that should balance the polluted environment concluded from the intense car emissions or noise from cars horns, signifies a great danger to the health of people whether living or visiting such an environment.

C.   Human Comfort Applications:

The comfort of any human being is accomplished through the investigation of his physiological and psychological status. By proper analysis of Al-Korba, the following conclusions were identified:

The inadequacy of landscape features that should provide a healthy environment to the visitor of the place by protective provision from the intense sun rays, comfortable seating areas to give the opportunity for people to linger and enjoy the authentic mood, the capability of roaming around between different stores from one side to another without worrying about the hazardous vehicles everywhere and finally the lack of any water feature to assist in lowering the high heat to put the visitor in the comfortable temperature range, exposes people to an uncomfortable physical status. Consequently, the inappropriate physiological state of people on experiencing this urban space will affect greatly their psychological state through the feelings of: anxiety, stress, discomfort, unhappy and many others non-pleasantly emotions that could transform such an architectural rich place to an unwelcoming environment.

3.2.2.2   Humanizing the Urban space:

It is essential to investigate the degree of importance of the human being in this linear urban space. The psychological outcome from the design holds a great role in the assessment of the success of the place. The friendlier the scale is to people, the more unintimidating is the space. The urban fabric within this space achieves an enclosure of scale 1:1.5, which could be considered comforting to the psychological and mental health of the visitor and gives a sense of prioritizing the human being, despite the fact of the importance the place gives to vehicles.

### 3.2.2.3   Festivalization Activities:

El-Korba is characterized by its uniqueness regarding its urban architectural configuration and outstanding urban details. Unfortunately, this gorgeous area suffers immensely from the recent crowding and misuse of its roads and physical fabric that represents a great annoyance to the visitors and the residents of the place, but on one day every year, it becomes a pedestrian street; all the cafes set their tables outside, bands entertain the visitors on a stage set especially for the day's event, kids draw on the street with chalks, and companies fall over themselves to market their products in the most innovative ways. Entertainment is varied: the traditional tanoura, oriental dances, and jazz bands. This festival event is for the cause of celebrating peace in Cairo's oldest and vintage quarter. This unique experience that occurs only one day in the whole year brings joy and satisfaction to the residents and admirers of El-Korba district. It creates a positive joyful entertainment environment in a vehicular-free space; keeping the visitors safe and comfortable. This spectacular event clings deeply in the minds of people; giving a thorough sense of belonging and arouses their intimacy level to the urban space. A one-day event; having that significant impact on people makes me as a researcher wonder and go through this inquisition: "why doesn't this positive happy impact on people last throughout the year?" the answer to this question is through the analysis of the diverse urban features within El-Korba district as follows:

1. The non-segregation between the intermediate vehicular route and the side walkways makes it impossible for pedestrians to cross from one side to another; as the heavy traffic inhibits the intermingling between the activities located on the ground floors of the adjacent buildings on lateral sides.
2. The lack of suitable landscaping (comfortable seats, shaded areas, softscape deficiency) in the area as a whole, as mentioned before, makes it impossible for people to enjoy the authenticity of the area.
3. The insufficient parking areas make people think twice before attempting a visit to the place. Baghdad Street has become a passing through route from one area to another due to the difficulty of finding a suitable parking lot without being exposed to the aggression of the workers, assigning themselves responsible for the parking profession and setting obligatory informal fees on people.
4. The cleanliness of the place is questionable and the caring for the place, despite its preciousness, is insufficient especially to the side routes where the garbage formed in a great heap. This hygiene problem causes consequently repulsive odors and raises many environmental issues.

4 CITY SQUARE- EL REHAB CITY, CAIRO, EGYPT:
4.1 A brief description of El Rehab City:
"Al Rehab City" is one of Cairo's newly constructed residential cities, located on the Cairo Suez road. It is set on an area of 10 million m2 in New Cairo and accommodates 200,000 inhabitants. Al Rehab City is the first built by the private sector in Egypt and is considered one of the most successful residential cities prototypes. Consequently to this success, the construction of City Square to its south between the two vehicular routes at gates 5and 6 is an immense addition to sustain the success of the community, as it participates to the entertainment spirit and represents a great gathering hub for all the residents and visitors of all ages.
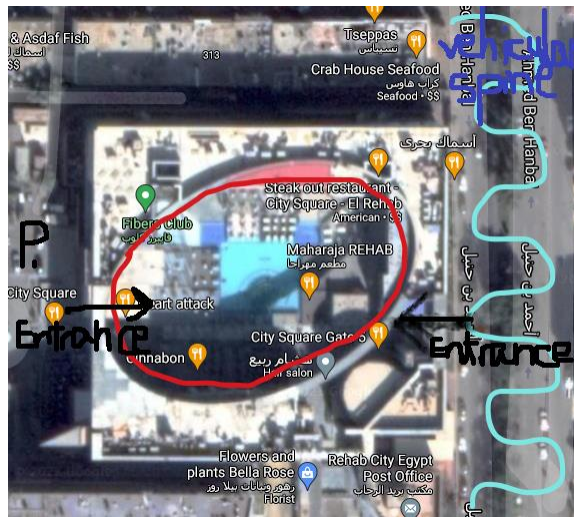
4.2   Detailed Description of the Square:

City Square is a significant addition to El Rehab city, located near gate 6. It is composed of a complex of restaurants and cafes that are mostly serving in outdoor areas within the space of the square. There is no historical background as it was recently constructed to represent an entertainment urban space to the residents of El Rehab city and the nearby residential compounds. City square is sufficiently equipped with a parking area to its south near gate 6 of El Rehab city; where the main entrance to the square is clear and inviting; leading the to the main pedestrian route that is enclaved by the water feature on its left and a bunch of restaurants and cafes on its right. This main pedestrian route is connected to another secondary entrance to its north near gate 5 of El Rehab City. There are two vehicular arteries to the south and north of City Square; where the entrances to the plaza exist. The branding and style of City Square is both spacious and modern. The roofs are covered with an elliptical form-like shade. There is a water feature in the middle of the square with a stage that partially flies over it; where it hosts bands during festivalization times or grands the chance for visitors to sight the water movement in the fountain. The square comprises several restaurants, cafes and other vibrant activities that addresses all diverse ages. The availability of an arts and crafts center makes it pleasantly for children to visit the place more often.

Outdoor seating areas surrounding the central water feature

4.3   Analytical Overview of the Square:

By applying the square to a detailed analysis with respect to the basic and sophisticate specifications of any urban space, clear identification of the real mood this square provides to its visitors is deducted and concluding in a manner the pros and cons of this urban space.

4.3.1   The Basic Specifications:

4.3.1.1   Functionality:

City Square is purely an entertainment hub, encouraging visitors to settle down in a space for a significant period of time. Shopping is not one of its activities unless several kiosks co-exist during festivalization times. These kiosks temporarily exist within the hub aligned with the main pedestrian route that is connecting between the two

entrances to the space, acting as a catalyst to attract more visitors to come and enjoy the offerings of the place. The elliptical hub lies within a set of cafes and restaurants that serve in an open air seating sets and tables that overlook the intermediate fountain, where the stage is centralized for special events.

4.3.1.2   Historical Image:

City Square was constructed after El Rehab City and it lacked neither any historical evidences, nor any attempts to imitate any historical features. The style of architecture is purely modern, whether mentioning the urban structure, the facades components and colors and even regarding the landscape design within. The designer hasn't even adopted any historical vocabulary, trying to supply the space with an authentic spirit.
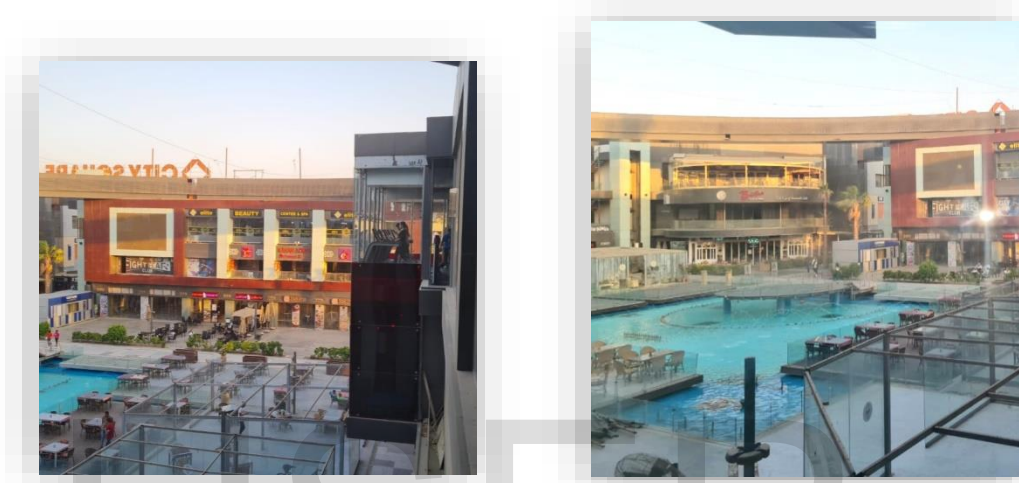
4.3.1.3   Naturalism:

Induction of nature within the hub is totally artificial. The designer depended upon the creation of a central water feature with some softscape manifestations; to give a touch of nature to the visitors; especially the addition of the blue color raises the attractiveness of the space and attracts more people to come and try the positive environment, created form such stimulus.

4.3.2   Sophisticated Specifications:

4.3.2.1   Human Needs:

A. Green Spaces:

The green areas within the space represent a minor percentage of the total area of the hub. It is identified in the form of some potted bushes along the main pedestrian route. Other than that, the space lacks completely the existence of trees, which might have had a great role in being a useful shade for many open-air seating areas or even for most of the walkers. It is essential to mention definitely the power of the green color in adding the appropriate vibes for the visitors; nevertheless, its role in purifying the air and could have been a great home-based for diverse birds, that added a great sound to the place and participated in the creation the positive environment, which is the main target of any design. Additionally speaking, the non-existing lawn areas in the urban space, withdraws the opportunity from visitors to enjoy sitting on a green carpet, which could have been of great enjoyment to many people.

B.   Safety Measures:

The location of vehicular routes only surrounding the hub and ends with parking at the main entrance gives a great sense of safety to the visitors, especially families with children. The insufficient shading elements within the space exposes the visitors to experience the high heat of the sun; thus minimizing the visiting percentage during the day-times. Conclusively, the sharp segregation between the vehicular and pedestrian routes

provides a high degree of security for people and makes them feel comfortable upon deciding to go from one place to another within the urban space.

4.3.2.2   Humanizing Urban spaces (Scale considerations):
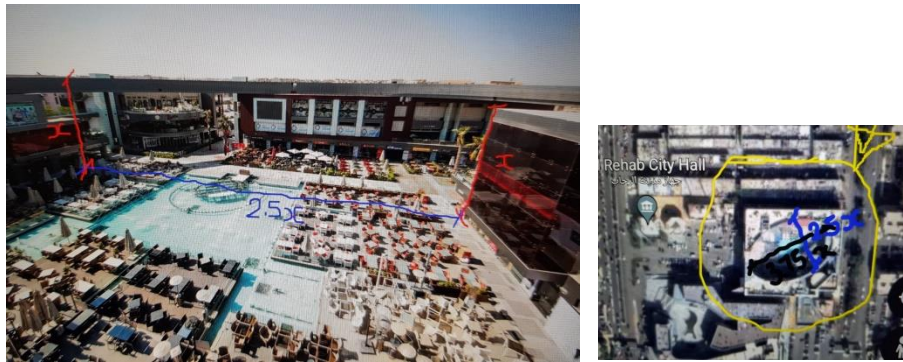
City Square is specialized by prioritizing the human being in all aspects of its design; starting from the alienation of vehicles to interrupt any of the space, to the furnishing patterns that align the central water feature, but obviously that scale of the visitor to the spaces is quite appropriate when examining it from one view, as the space is in the form of an ellipse, as the width of the space in the small dimension is 2.5 the height of the adjacent buildings; consequently, the space is qualified with a moderate degree of achieving enclosure when speaking about the smaller width dimension, but on examining the larger dimension, it is concluded that the width of the urban space is 3.75 the height of the adjacent buildings, where the enclosure somehow faded away. Conclusively, the designer hasn't done a great job in the selection of the peripheral buildings with regards to the elliptical form he has chosen for his design.

4.3.2.3   Festivalization Activities:

Festivals Occurrence in City Square

The landscape design in City Square is characterized by being prepared for hosting any event or festival, as the existence of a middle built-in stage that flies over the central fountain can host bands and the spreading of diverse seating areas around the water feature; all this facilitates the repetition of festivalization spirit throughout the year. Deductively, City square comprises great aspects for inducing happiness in its visitors and thus enhancing their mental well-being to a good extent.

5   ANALYTICAL COMPARISON BETWEEN THE STUDIED URBAN SPACES:

A survey has been conducted to investigate the degree of appealing each space possesses to different categories of people: age, gender, diverse social preferences. In addition, identification of their humble opinion towards each space is quite essential in this survey:

Visitors	Al Korba Square Rating	City Square Rating	Opinion of the Visitor (written exactly as it was conducted)
Visitor#1	3	9	The atmosphere at City Sqyare- El Rehab City is calm and refreshing. The air is cleaner and cooler. It is not crowded. Restaurants are on the ground floor, overlooking a view.
Visitor#2	7	8	During the visit of al Korba, I feel happy and comfortable, although it is not a place to sit and enjoy

			a cup of coffee, but reminds me more of my culture. City Square is more relaxing and relieving; it gives modern vibes and I can sit and grab something to eat abd drink, but it misses the cultural vibes Al Korba has.
Visitor#3	5	8	When I visit Al Korba Square, I like the vitage design and it reminds me of childhood memories. On the other hand City sqyare is modern and makes feel like I'm in a new place and gives me cheerful and relieved vibes. Al Korba Square is very crowded and the streets aren't very clean. It is not a first choice to hangout as it doesn't have places to sit other than cafes which are expensive. City Square has many different areas and the parking is easy.
Visitor#4	7	5	Al Korba is familiar and safe as if back to home. City Square, I feel relaxed and change of mood. The old architectural style in Al Korba square gives feeling of comfort.
Visitor#5	3	8	The idea of visiting Al Korba is not attractive at all to me as firstly I won't be able to find a parking easily; secondly the weather is too hot to walk for a long time; but it has a great sense of architecture and there are a variety of stores to purchase. City Square is perfect to change mood and enjoy the place for a long time; and doesn't have any stores other than cafes and restaurants.
Visitor#6	4	8	In Al Korba Square, I feel happy but exhausted for too much walking. The historical architecture is amazing, but not safe. City Square is more futuristic, more connected and much more safety.
Visitor#7	5	7	In Al Korba Square, I feel happy because of the Architectural Style and feel I am in a familiar place. City Square provides the opportunity for social interactions and activities. I feel happy vibes in City Square.
Total	34/70	53/70	
Percentage	48.5%	75.7%	

TABLE (1): RATINGS OF PREVIOUSLY STUDIED URBAN SPACES AND VISITORS' OPINIONS

Conclusive analysis:

According to the previous questionnaire, City Square is favorable to lots of visitors for the following brief reasons:

1. The parking is easy.
2. Appropriate for social interactions and meetings.
3. The variety of available cafes and restaurants widens the range of choice according to the visitor's taste.
4. The intermediate water feature and other landscaping added a great view for the surrounding cafes and restaurants.
5. The absence of any vehicular routes within the City Square raised its safety level.
6. The availability of diverse comfortable seating areas added highly to the positive vibes of the place.
7. The central water feature has a great impact on stabilizing the physical comfort of the visitor and the psychological status through the addition of the blue colour.
8. City Square misses the impact of authenticity as it comprises modern architecture and has no role in the memories of any of the visitors.
9. City Square is clearly an entertainment hub; offering a variety of cafes and restaurants; but unlike Al Korba,it lacks the shopping spirit.

10. Al Korba comprises a variety of shops, many cafes and restaurants; in which their seating tables are interior and have no view entirely.

11. Safety measures are minimal within Al Korba due to the passage of a central vehicular route that separates completely the two sides of linear shopping zones.

12. The architectural style of Al Korba bears a great impact in the minds of many people, as most experienced events within this authentic urban square, especially during festivalization day.

6 GENERAL CONCLUSIVE RECOMMENDATIONS FOR POSITIVE VIBES INDUCTION IN URBAN SPACES:

Physical variety, flexibility, legibility, penetrability, and place identity are stimuli that may result in the improvement of the quality of urban spaces, improvement of the quality of life, and people's mental health; thereby increasing happiness in urban spaces.

Urban Space Specifications	Stimuli of Positive Vibes in Urban Spaces	Urban spaces Design Recommendations
Physical Specifications	Place Identity	Places play a vital role in developing and maintaining self-identity and group identity of the people (Davenport and Anderson, 2005). In the context of urban design, place identity is mainly concerned with the physical image and people perception. To gasp the sense of place, urban designers should integrate the attributes and characteristics of the place to achieve greater attachment spirit. The physical elements and activities ought to be mixed with the socio-cultural and psychological features. Place attachment is a positive factor that can contribute to sustaining place identity, thus promote psychological well-being, fulfillment and happiness to the urban visitors.
	Variety	Increasing the range of opportunities that people could experience in an urban space adds highly to their level of happiness. Socially, it is essential to enhance diverse focal points within the space design to increase the sociable environment, variate the activities that could be performed within the place for higher rates of visiting experience; thus, achieving a sustainable urban environment.
	Legibility	Two variables are determined to measure spatial dependencies of legibility: 1. The degree of complexity of spatial layout and 2. The recognizability of saliency of landmarks. Designing the urban space with a distinctive feature that could impact the user's memory and keep the space readable for people is the most succeeding manner in which the urban space becomes legible; as incorporating a specific landscape feature that makes the place outstanding and different from other spaces, or adding a distinctive landmark, or highlighting the space by an unfamiliar activity (designing an open air theatre for an example). The more familiar and simply organized is the space, the more comfortable and happier is the visitor.
	Flexibility	Designing urban spaces with high flexibility level is an attempt to define and reuse space, give personality to open spaces, and create social changes with respect to environment and in urban dynamic framework and accessibility to urban spaces (Thompson, 2002:95). Flexible urban spaces enable the provision of many options for citizens' needs perquisites including permeability, versatility, and legibility that influence different dimensions of users' power or selection procedures. Spaces which can be used for different purposes offer their users more choice then places whose design is limited to a single fixed use (Bentley et al., 1985:56). More choices is translated into more happiness achievement; thus, improved menta and physical health.
	Spatial Cohesion	Spatial Integration strengthens the cohesion of social, economic, and cultural relationships. This can lead to social cohesion, one of the main components of mental health and happiness among people.
Landscaping	Green Spaces	Green spaces positively influence the well-being of people and particularly their mental health, by reducing stress (Kaplan 1995) and improving their behavior (Ulrich et al.1991), as well as physical health (Mitchell and Popham 2008). Green spaces have positive influence on life satisfaction and social welfare. The design should comprise quite diverse forms of greenery that gives the visitors the opportunity to linger between

		the green color more often and consequently improving their overall health.
	Vehicular free Design	Pedestrian Orientedness is the most evident factor of happiness among people. If the design is oriented towards building many roads and streets, more vehicles will be attracted; while on the other hand, if the design is oriented towards more pedestrian and bike routes, more pedestrians are attracted. Bike paths are central to sustainable urban development and usually result in a highly dynamic environment by increasing public health and reducing greenhouse gases, as well as noise and air pollution. Research findings concluded that children who regularly ride a bicycle are likely to have higher self-confidence and behave more generously. Generally, any physical activity helps in the secretion of the happy hormone (Endorphin) and thus raises the quality of mental health and physical health consecutively.
	Festivals and Events	Social events can contribute to people's attendance and increase happiness. Research findings show that economic and social flexibility are necessary for happiness in a city (Montgomery 2013). Developing plans for responsible organizations to hold ritual ceremonies, art exhibitions and competitions for various age groups, and distribution of brochures to inform people about the social events may improve greatly the mental health of citizens and increase their happiness levels.

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