

# Understanding Publicness Degree of Cairo's Public Spaces

Ahmed Abdel-Rasoul, Prof. Sadek Saad, Prof. M. Khairy Amin, Ass. Prof. Eslam Nazmy

**Abstract**—Public spaces in Cairo witness a significant transition in their articulations since the state imposed its power over their development till the empowerment of the elite class over the same. This paper develops and validates an evaluation sheet, with measurable indicators, used to understand and evaluate the publicness degree of public spaces through discussing two features: accessibility degree and social diversity degree. Expo Square and Festival Square from metropolitan Cairo are investigated to represent public-sector development (state power) and private-sector development (elite power) respectively. Through this investigation, the degree of publicness is discovered via the evaluation sheet to understand how different empowered actors could affect space publicness. The research concludes that in Cairene context, the private-sector produces public spaces with less degree of publicness according to his profit-making plans.

**Index Terms**— Accessibility Degree, Social Diversity Degree, Publicness Degree, Public Space, Madinet Nasr, New Cairo.

## 1 INTRODUCTION

Since July 23<sup>rd</sup> Revolution, Cairene public spaces have witnessed two main distinct empowered actor over their production: the public sector (state power), and the private sector (elite power). Both sectors affect differently public spaces' articulation in metropolitan Cairo [1]. Traditionally, public spaces have been produced by the public sector to ensure space availability to all users. Due to the limited resources, the state was unable to continue in this way and the private sector has been empowered to produce the public spaces in the contemporary city. This empowerment leads to change the sole nature of public spaces (publicness right) as observed by different scholars all over the world. Some scholars argue how the publicness right to public space is defected due to the privatization process of public space [2], [3], [4], [5].

The next section identifies the current debates about the concept of publicness right to public space. Subsequently, based on this literature review, the research develops an evaluation sheet used to determine to what extent different empowered actors over public spaces' articulation could govern the publicness degree of a public space. This evaluation sheet is then applied to two cases studies -public spaces- from Cairene context.

## 2 METHODOLOGY

This paper, firstly, develops a conceptual framework with measurable indicators -evaluation sheet- used for understanding the publicness degree of public spaces. The part discusses literature reviews from sociopolitical and urban perspective, regardless addressing the notion of the quality of the built environment which is considered as a must for investigating any public space.

Then, two selected cases studies from Cairo governorate - Festival Square as a prototype of private-sector development, and Expo Square as an example of public-sector development- are investigated through the developed evaluation sheet to test its validity as well as to draw a conclusion about this paper aim. Some tools are used in conducting the applied cases studies: ethnographic observation, interviews, questionnaires survey processed by Google Form and Excel software, UCL Depthmap software (Space Syntax tool), and eventually Walk Score tool.

## 3 PUBLICNESS AS A RIGHT TO PUBLIC SPACE

### 3.1 Public Space

People, in normal life, transmit from private to public spheres while at the same time feeling and behaving accordingly. As they move from the most private sphere of their home to the most public sphere of their city [2], a space of 'local publicness' is located. Public spaces shape a big part of this outside arena of everyday life, where individuals interact freely to express themselves with others. Public spaces have distinct features that can't be found in any other spaces dedicated to personal or local publicness use. They are accessible, socially diverse, and mediating spaces between exclusive spatial-territories of the distinct communities. UN-Habitat [6] defines public spaces as "all places publicly owned or of public use, accessible and enjoyable by all for free. Hence, they do exist at the cosmopolitan publicness level of the city life [1].

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There are many approaches classifying public spaces all over the metropolitan. Carmona et al. [3] identify three categories of public spaces: external public spaces such as public squares and parks, streets and highways; internal public spaces such as expo centers, public libraries, and mass-transit stations and external; and internal spaces 'quasi-public space' which might be managed or owned by private sector such as sportive arena, university campuses, and shopping centers. On the other hand, UN-Habitat and INU [7] trace the publicly/privately managed or owned typology consisting of four main categories of public spaces all over the metropolitan as well as encompassing indoors and outdoors ones. The first category is considered as spaces, publicly owned and managed, of daily life available at all times, multi-uses, of free of charge access, of accommodating socio-cultural and political events such as streets, squares, plazas, etc. The second category is open spaces publicly owned and managed, available to all without charge during only daylight time, such as parks, gardens, playgrounds, and waterfronts. The third category includes urban public facilities publicly owned and managed, accessible to users on certain conditions, such as sports facilities, civic centers, and municipal markets. Lastly, the fourth category is the physical/nonphysical spaces supporting the public power over their city management, such as cyberspace and sociopolitical forums. In other words, all the introduced typologies are different either by power holder over their production (publicly/privately owned or managed), or by their time availability. However, the research provides another public spaces' topology that consists of two typologies: nodes and connectors [1]. The nodes are public spaces that become a medium with which one could consolidate, blend, socialize and meet others in his/others heterotopia<sup>1</sup> at the cosmopolitan publicness level. Nodes are divided into green and gray categories, whereas the green one such as natural reserves, greenways, scenic roads, and parks. The gray category, in turn, refers to the artificial places that apparently dedicated for people use, not for vehicles, such as squares and plazas, or a part of avenues, boulevards, sidewalks, and passages.

As connectors, public spaces become a network defining the physical or nonphysical medium 'linkages' to the nodes. They are all spaces and spheres playing a vital role in gathering people to the nodes, or in navigating through the outside social world of a city [8]. They are often alternative routes for getting from one point to another, with a choice made on the interrelated base of convenience, interest, joy, safety, etc. They are either physical such as streets, greenways, and scenic roads or nonphysical -space of flows- via social networks.

### 3.2 Right to Publicness

When people could occupy open spaces to exercise their activities freely, then these spaces are fulfilling the publicness right [9]. Carmona et al. [3] see publicness as a prerequisite right in public spaces' articulation. Abdel-Rasoul and Nazmy [1] also develop a network of public spaces -nodes-connectors typology- aiming to get diverse people into this common ground (network of public spaces).

Fortunately, the political debates have started to pay sub-

stantial concerns regarding the publicness right of public space. Ecuador's 2008 Constitution, for example, provides an article to ensure the access right to public space.

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*Article 23: "Persons have the right to gain access to and participate in public spaces as a sphere for deliberation, cultural exchange, social cohesiveness and the promotion of equality in diversity."*

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Joan Clos<sup>2</sup> states that public space is considered as a democratic forum for citizens when it could be open to all of them, regardless their "ethnic origin, age or gender" [10]. Moving toward the Egyptian context, the right to publicness in the Egyptian Constitution is not stated obviously neither in the 2014 edition nor in previous ones. Although there is an article supporting freedom of thoughts- Article 65, it promises marches, public meetings and demonstrations in the physical public spaces only under certain conditions.

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*Article 65: "Freedom of thought and opinion is guaranteed. All individuals have the right to express their opinion through speech, writing, imagery, or any other means of expression and publication."*

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There are various trials to investigate the publicness right to public space besides many other aspects. The Commission for Architecture and the Built Environment CABE [11], for instance, provides 'the spider model' to explore public spaces through eight different factors: access, use, other people, maintenance, environment, design and appearance, community, and you. However, this model isn't exclusively dedicated to study publicness right, that leads to misunderstanding for investigating this right principle. Varna [12], on the other hand, develops a star model based on investigating five major features: civility, animation, physical configuration, ownership, and control. Also, this model study the publicness right using subjective method by considering that any public space belongs to the private sector is of less degree of publicness regardless addressing how this degree is truly achieved in a space.

In turn, this paper is neither addressing the publicness right

<sup>1</sup> a term coined by Foucault (1986) to define a single real place made of several places

<sup>2</sup> Executive Director of UN-Habitat

regarding the quality of the built environment nor the management forms. It investigates the publicness right in terms of how the diversity of people is welcomed in a space, which is considered as a result of the empowered actor over public spaces' articulation. Therefore, two major rights, according to public space concepts and definitions, are discussed to investigate the publicness right of any given public space: the accessibility right and the social diversity right, whereas the first grounds the arena for the second.

### 3.2.1 Accessibility Right

The distinction between the two opposite spheres -public vs. private- defines how access to each one is controlled. While access from private to the public sphere is freely guaranteed, reversing the two spheres is accompanied by a form of restriction and exclusion toward who does not belong to the private one. Although the design of public space could constitute exclusive or inclusive ones, Carmona et al. [3] contend that it is preferable to have spaces guaranteeing inclusion and the free of choice, which is the central notion of outstanding urban design.

The accessibility right is considered as an essential right in all definitions and concepts of public space. TADAMUN [13] argues that space could be truly public if it does guarantee accessibility to "all citizens, regardless of their race, age, gender, income, or religion." Public space, in many literature reviews, means to empower people with full access to space, or where individuals feel free to enter [6], [7], [5], [14], [2].

Carmona et al. [3] define accessibility as the capability "to enter and use a space." Carr et al. [15], on the other hand, provide trilogy classification of accessibility right: visual, physical, and symbolic access. The first two categories inherently ensure the accessibility right to public space while the last guarantees the social diversity right. On the one hand, the visual access deals with the visible ability of people to discover space's activities before entering it to judge whether they are welcomed or not [15]. Carmona et al. [3] contend that the physical edge of public spaces provides an interface between both public and private spheres enabling their interaction while protecting people privacy as well. On the other hand, the physical access is considered as the feature with which space could be physically available to the public or not. On contrary, the physical exclusion is the failure of some people to get into or to use that space, regardless of whether this space achieving a form of visual access or not [15]. Therefore, walls and gates (access points) are kinds of public space's physical barriers used by who in charge of the public space to prevent undesirable people from getting into space, due to specific behavior patterns or class issues.

On other way, Mboup, Warah, and UN-Habitat [16] argue that streets must enhance the accessibility through mobility, which is considered as another kind of means ensuring physical access to the public space. They highlight that public space should guarantee a freedom of choice of different types of mobility: public/mass transit and private transit, as it is crucial to welcome diverse socioeconomic classes.

Consequently, the accessibility right could be studied through any public space by investigating the accessibility degree of that place. The accessibility degree, therefore, refers to the

physical characteristics of a public space consisting of two levels (Table 1):

**Physical accessibility:** spatial accessibility (integration degree and the quality of public access points), walkability, and transit oriented (public and private); and

**Visual accessibility:** barriers permeability, and space exposure to the surrounding environment.

### 3.2.2 Social Diversity Right

When pursuing to have publicness right to public space, it is essential to ensure that this public space should not only foster a high accessibility degree but also to fulfil the social diversity right into that space. Madanipour [2] emphasises that public space is the "common ground" where all individuals can get out from their private sphere to connect each other in the public sphere. Cenzatti [17] also argues that social diversity right is a fundamental value bringing individuals into spaces to guarantee the full degree of publicness.

In 2015, the superior officials of United Nations urged the creation of "public spaces for all" [10]. Ban Ki-moon states that "public spaces are crucial for poor and vulnerable citizens," as "improving access to them, and making them safe for women and girls, increases equity, promotes inclusion and combats discrimination" [10]. UN-Habitat and INU [7] consider that social diversity is among the most crucial rights for "social interaction, economic exchange and cultural expression" in any public space. Oldenburg [18] also contends that without spaces of public gathering, the "promise of the city" is visionary due to its abandonment of bringing social diversity right which is considered as its substantial essence of existence. In line, Jacobs (Jacobs 1992) argues that bringing people into the street fosters urban vitality, that is why public space must attract a consolidation of people - "exuberant diversity"- for whatever purposes might be there. Similarly, Sennett [19] argues that urban life of a metropolitan provides people the capability to handle complexity and to understand the "unwritten rules" of people life. Although Zukin [20] claims that some of the people might not accept this complexity, she assures that public space should inevitably tolerate this social diversity.

According to Carr et al. [15], symbolic access, the third type of the trilogy mentioned before, is a necessary mean by which people could feel either invited or not to public space's activities. As in space, for instance, some retail shops and franchises might signal which socio-economic groups are welcomed there. This signal is raising the affordability issue, announcing what kind of users which this place desires. Low, Taplin, and Scheld [14] note that there is a kind of exclusion of some social groups from a space, as it is a by-product of privatization and consumerism used for reducing the number of undesirable people from being in that place. As some can possibly have physical access to a public space; however, they cannot access the activities going on there. So, symbolic accessibility concerns with how different socioeconomic groups are welcomed in the space design and activities [21]. Are they all welcomed? Alternatively, are some of them excluded? That figures out, in turn, the social diversity feature which is considered as a manifestation of power to control the types of users in the space.

Consequently, the social diversity right could be studied



through any public space by investigating the accessibility degree of that place. social diversity degree, therefore, refers to the practical expression of the actual use of a place by diverse people regardless of their socioeconomic status, age, gender, religion, race, or disabilities. So, the more socially diverse public spaces are those characterized by a vibrant public life expressed in a wide range of activities performed by a large number and a high diversity of users.

### 3.3 The Right to Publicness Under Privatization

UN-Habitat [6] strongly points out the importance of not considering the profit motive in public spaces' articulation, as a lot of contemporary public spaces are privately owned or managed and they are planned to attract consumers instead of the whole society individuals [7]. Different authors debate about the changes of the sole nature of public spaces due to the changes happened in the status of the empowered actor over their articulation. Carmona [22] contends that the role of the public sector over public spaces' articulation has a potential to change in between forms of guidance and those of control. So, the dilemma here is how the changes of the empowered actor could accordingly affect the publicness right of public space.

The private sector as an empowered actor leads public spaces more apt to change in its publicness right: accessibility and social diversity rights. Both Madanipour [23] and Atkinson [24] argue that accessibility degree is subjected to change due to the process of privatization of public space. Ellin [25] sees the process of privatization as a consequence of the desire to control public space as it lately moved from central locations to less accessible streets.

On the other hand, Low and Smith [26] debate that social diversity as a crucial feature is no longer, if it ever were, fostered and tolerated in public space articulation. In line, Low, Taplin, and Scheld [14] contend that when public space get privatized, some threats to its publicness right will happen. As some social groups are prevented from their right to occupy that place. In the neoliberal era, Zukin [5] presents some public spaces are produced at the periphery as clean, safe, and predictable with controlled social diversity places. Davis [27], Harvey [28], and Lefebvre [29], as well, argue that enforcing social control has been considered as a substantial value in public space during the neoliberalism as constrained diversity has been celebrated in that privatized arena. An explanation could be found in Crawford's conclusion [30] which elaborates how developers of public spaces, like corporate plazas, have figured out that constrained social diversity is more profitable than socially diverse one.

That nature of constrained social diversity creates a new lifestyle space that Mitchell [31] entitles it as the process of "Disneyfication" of space. This process increases the alienation of people from normal social interaction into a new fun-mediated spaces controlled by elite class. Zukin [20] refers to the space obtained from this process as a middle-class space that its regulations is to control the social diversity of people to produce an exclusive, and predictable space as safe and socially homogenized.

Upon that, the 'privatization of public space' leads both accessibility degree and social diversity degree to its lower value

toward producing exclusive spaces for who could afford to be in these spaces. Hence, the theoretical framework argues that public spaces under the power of public sector have a higher degree of publicness rather than those under the power of private one. This theoretical statement should be tested by investigating the two selected case studies from metropolitan Cairo via using the following evaluation sheet of the publicness degree.

## 4 GENERATING THE EVALUATION SHEET FOR PUBLICNESS DEGREE

To evaluate the degree of publicness of public space, the two sociopolitical features of public space -accessibility degree and social diversity degree- are assessed via generating their ideal model. The ideal model, as argued by Weber [32] and El-Messiri [33], is a perfect type that doesn't exist in reality, and constructed from consistent biased parameters. However, it can be obviously realized to understand its influences on this reality. Based on the conceptual framework with the ideal model vision, this part generates the evaluation sheet for measuring the degree of publicness. The evaluation sheet introduces an ideal model that consists of accessibility and social diversity indicators and the associated criteria.

Although the highest values of the two degrees of the evaluation sheet presents the ideal publicness degree of public space that can't be exist in reality, this evaluation sheet could be used to understand the publicness of a public space (the reality). Notably, the evaluation sheet only evaluates vital public spaces with accepted standard of built environment as the study doesn't evaluate the quality of built environment.

In the evaluation sheet (Table 1), Firstly, accessibility degree is represented in two categories: physical, and visual. The physical category is subdivided into three sub categories (indicators):

- 1) The spatial accessibility of the place that represented by two criteria; the first criterion 'Integration degree' which evaluates the spatial integration of the place regarding the most integrated route using space syntax analysis tool, and the second criterion 'Quality of public access points' which represent the status of public access points ranging from free access to strongly controlled.

- 2) Walkability which represents the walkability environment around the place using walkscore tool.

- 3) Transit-oriented which represents how people - especially vulnerable groups- can get to the place using different means of transit (metro - light rail 'Tram', bus - Minibus, and Microbus--vans).

On the other hand, the visual category is evaluated using two indicators: Barriers permeability and spaces exposure. So, accessibility degree, in general, is used to show how connectors are well connected to the nodes.

Secondly, social diversity degree represents to what extent diverse socioeconomic groups (high, middle, and low classes) are being considered in the public space's articulation (design and activities) coincided with age, gender, religion, race and disabled people as well.

Overall, the degree of publicness (accessibility degree and social diversity degree) inherently represents how different clas-

ses are realized in public spaces' design and activities; are they represented as equal? Have they equal opportunity to access the cosmopolitan public-life? Or on contrary, are some of them excluded from occupying and enjoying the public space?

#### 4.1 Evaluation Method and Tools

For the evaluation sheet, the research uses interval scale [34] or points rating method [35], [36] to convert observations into quantitative values for better analysis; whereas each criterion is given a percentage of 5-points score (100%, 75%, 50%, 25%, 0%). Thus, this evaluation sheet generates two distinct values: accessibility degree; and social diversity degree. These degrees, therefore, can be used for the comparative analysis to trace and comprehend the precise differences of public spaces' publicness within any heterotopia.

The evaluation sheet provides the quantitative analysis for the publicness right to public spaces using the following tools:

##### Ethnographic Observation

The ethnographic observation is used to trace the sociopolitical conditions within which public spaces are reproduced. It observes people in situ that aims to draw our nuanced understanding of the socio-spatial production in relation to public spaces [37]. It addresses the complexity of the correlation between contemporary social relations and space materiality at local and global scales [37].

The main aim of this tool is to observe the behavior of human groups (humans' daily-life and activities) that couldn't be understood outside their spatial context [14], while it illustrates the unknown and investigate the obvious [38]. Therefore, this tool is used by the researcher to gather the data for the evaluation sheet. Then, these data should be validated using the questionnaire survey or interviews (Table 1).

##### Interactive Social Survey

A series of questionnaires and interviews have been conducted to gather the required data needed for validating the ethnographic observations. Two different procedures have been used for making this questionnaire: in-situ questionnaire, and online one. These two different types of questionnaire samples - 30 samples for each investigated public space- assist to widen the sample variation during different times. The conducted questionnaire survey has two main parts: the first part dedicated to participant's personal data while the second one is dedicated to evaluate the place in terms of accessibility and social diversity degrees as follow:

In terms of the accessibility degree, it is validated through asking people about the physical and nonphysical means used to get to the place.

In term of social diversity degree, it is validated through knowing how each socioeconomic group represented in space design and activities by asking people about entrance and activities fees affordability, as well as quantifying the age, gender, and socio-economic status from the sample size as an indicator. The latter has been determined by the current estimated price of the participant's home.

#### 4.2 Tools Used for Evaluating Accessibility Degree

Two tools are used in this process, the first one: Walk Score which is a tool used to set scores for the quality of pedestrian

and transit environment. However, due to the unavailability of some data in the case of Cairo in this tool, transit score is observed and evaluated according to the proposed evaluation sheet. In walkability score, the maximum points are given based on amenities availability within a five-minute walk (about 402m), in regard to population density and road network (perimeter length and intersection density) [39]. However, the output values provided by the walk score are normalized to fit the point rating method for the evaluation sheet. The disadvantage of this evaluation tool as it doesn't take into consideration the quality of the built environment appropriated for walkability. However, it seems that it is not a significant factor in the Egyptian context as it is ignored in most of Cairo's connectors.

The second tool: the tool of Space Syntax analysis, a computational tool developed by [40], is used for the analysis of connectors' spatial-integration (street network) via generating an axial map processed with the UCL Depthmap software. This process is done through picking the longest and fewest lines in the connectors' network [41]. As the software calculates the angular relationship between connectors' segments, it assumes that connectors with highly spatial-integration having the lowest number of direction changes compared to the others [42], [43]. Thus, spatial angular integration indicates the interrelation of a connector's segment to all other segments in the heterotopias that have been analyzed via different spatial scale (local/global) by using different metrical radii [43].

## 5 INVESTIGATING PUBLICNESS DEGREE OF CAIRO'S PUBLIC SPACES

Since 1952, Metropolitan Cairo is one of the most transformed places all over the world, as facing a huge mutation in its urban landscape. Since that time it is influenced by the mutation from the era of proclaimed socialism to the neoliberal era [44]. Castells [45] argues that Egyptian "economic power is in the hands of business elites [private sector] that were traditionally depended on the state and the military [public sector]." This matter of control could be observed in the changes happened of publicness degree of public spaces.

In order to test the theoretical argument in addition to validate the proposed evaluation sheet of publicness degree, two nodes (squares) of public spaces belonging to two distinct empowered actors over their articulation are investigated. The selection of both squares is based on achieving the following criteria:

- 1) Dedicated to cosmopolitan publicness level: located within the communal part of the heterotopia (CBD for example) and not only dedicated for local publicness;
- 2) Having a vital public life attracting people to them;
- 3) Achieving the minimum descent required criteria in relation to its context; and
- 4) Not neither indoor public space nor exclusive one that authorizing access for some people instead of others.

Regarding these selection criteria besides the limited number of these nodes typology belonging to the public sector in metropolitan Cairo, two squares were selected (Fig. 1). Expo Square and Festival Square from metropolitan Cairo are inves-

tigated to represent public-sector development (state power) and private-sector development (elite power) respectively. Both squares are explored in the beginning, then they are discussed through a comparative analysis using the deduced evaluation sheet.

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TABLE 1

EVALUATION SHEET FOR THE PUBLICNESS DEGREE OF PUBLIC SPACE (BASED ON THE THEORETICAL FRAMEWORK)

Right to publicness		Sociopolitical rights		Indicators of sociopolitical rights		Evaluation criteria		Scale		Used tool		Validation												
<b>Physical</b>  <b>Accessibility degree</b>	<b>Physical</b>	<b>Spatial accessibility</b>	> Integration degree		Strongly integrated	100	values %	Space Syntax (UCL Depthmap)	Interview	Questionnaire	Questionnaire/ Interview	Questionnaire	Questionnaire											
			> Quality of public access points		Highly integrated	75																		
					Moderately integrated	50																		
					Low integrated	25																		
					Segregated	0																		
	<b>Walkability</b>	> Walkability score		Walker's paradise	100	Walkscore	Interview	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
				Very walkable	75																			
				Somewhat walkable	50																			
				Car-dependent	25																			
				Very car-dependent	0																			
<b>Transit-oriented</b>	> The quality of metro - light rail 'Tram'		Directly connected	100	Transit map (Quiros, Canales)	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
			Moderately connected	75																				
			Somewhat connected	50																				
<b>Barriers permeability</b>	> The quality of barriers permeability		Remotely connected	25	Ethnographic obs.	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview											
			No barriers	100																				
			Somewhat barriers	75																				
			Permeable	50																				
			Somewhat permeable	25																				
<b>Space Exposure</b>	> The quality of space exposure to the surrounding		Full opacity	0	Ethnographic obs.	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview	Questionnaire/ Interview											
			Passing through	100																				
			Somewhat passing through	75																				
<b>Visual</b>	<b>Symbolic accessibility</b>	<b>Socio-economic classes</b>	> The ability to represent High class		Segregated	0	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
					Highly represented	100																		
					Moderately represented	75																		
					Somewhat represented	50																		
					Not represented	25																		
<b>Social diversity degree</b>	<b>Symbolic accessibility</b>	<b>Socio-economic classes</b>	> The ability to represent low class		Not represented	0	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire										
					Highly observed	100																		
					Moderately observed	75																		
					Somewhat observed	50																		
					Not observed	25																		
			<b>Age</b>	> Demonstrated children presence		Strongly observed									100	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire
						Highly observed									75									
						Moderately observed									50									
						Somewhat observed									25									
						Not observed									0									
<b>Gender</b>	> Demonstrated male presence		Strongly observed	100	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
			Highly observed	75																				
			Moderately observed	50																				
			Somewhat observed	25																				
			Not observed	0																				
<b>Religion</b>	> Demonstrated neutral religion presence		Strongly observed	100	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
			Highly observed	75																				
			Moderately observed	50																				
			Somewhat observed	25																				
			Not observed	0																				
<b>Race</b>	> Demonstrated neutral race presence		Strongly observed	100	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
			Highly observed	75																				
			Moderately observed	50																				
			Somewhat observed	25																				
			Not observed	0																				
<b>Disabled people</b>	> Demonstrated disabled people presence		Strongly observed	100	Ethnographic obs.	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire	Questionnaire											
			Highly observed	75																				
			Moderately observed	50																				
			Somewhat observed	25																				
			Not observed	0																				



that take place around the fountain and in the auditorium. The dancing fountain shows and some performances provided by

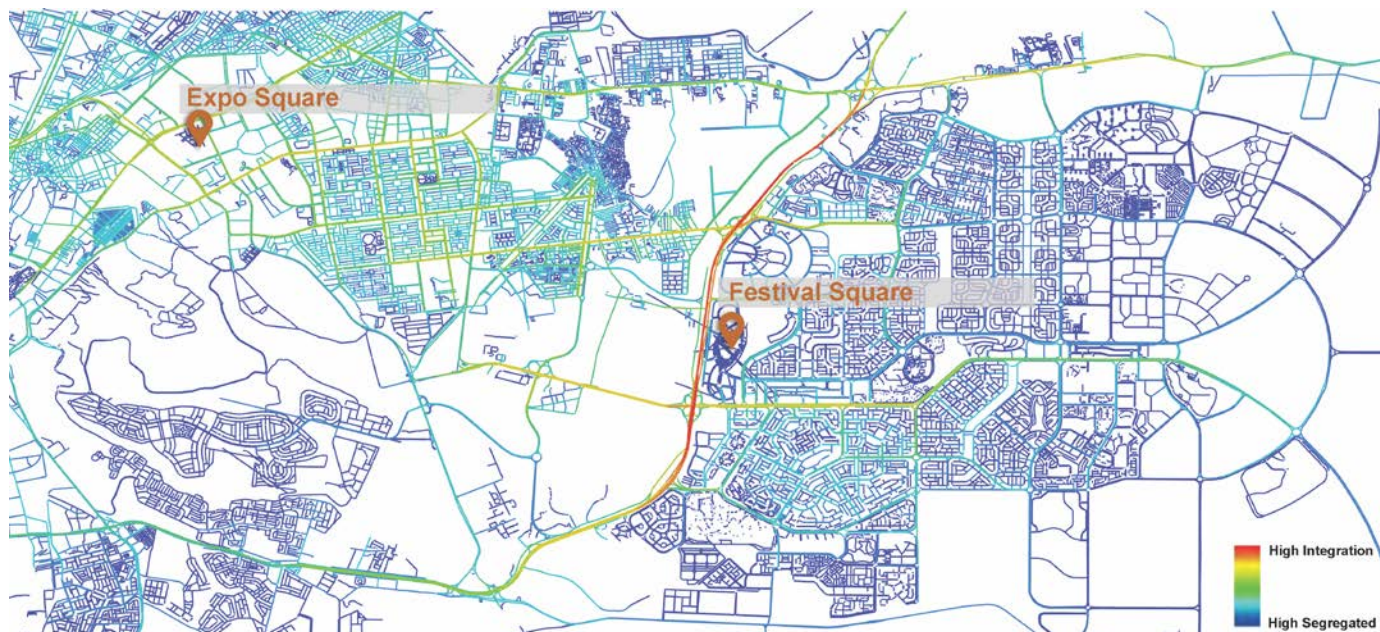


Fig. 1. Spatial integration map (R7) of the connectors network of Madinet Nasr and New Cairo with the location of the two squares (using Open Street Map and UCL Depthmap Software)

## 5.1 A Glance at the Selected Squares

### 5.1.1 Expo Square, Madinet Nasr Heterotopia

**Publicly owned, opened in 1980**

The Expo Square is a part of Expo Land which is the third vertex of the cosmopolitan triangle of public spaces after the Convention Centre and the Sportive Arena in Madinet-Nasr Heterotopia. The project is bounded by three routes; Salah Salem Road from the north side. The square is under the management of Egypt Expo & Convention Authority (EECA), a sector of the Ministry of Trade & Industry, which serves the local, regional, national, and international level as well. It provides seasonal events, indoor/outdoor shopping, and cultural exhibitions, besides some core activities serving these seasonal events.

### 5.1.2 Festival Square, New Cairo's Heterotopia

**Privately owned, Opened in 2013**

The Festival Square is a part of Cairo Festival City Mall (CFCM), with approximately 5 acres of outdoor area. The project locates in the 5th settlement at the beginning of the 90th road. It provides indoor-outdoor shopping, dining, and entertainment destination. The mall design's criteria took into consideration the residents of new Cairo, and adjacent communities as well (CFC Brochure).

It is worth to be mentioned that the Festival Square is designed to accommodate two major kinds of activities; the first differed from franchises restaurants, cafes, kids' fun and re-tails, and the second type includes shows and social events

the mall management are for free while other social events of singing bands and artists shows are with limited access to those with tickets.

## 5.2 Discussion of Squares' Publicness Degree

According to the evaluation of both squares using the proposed evaluation sheet, the accessibility degree and social diversity degree are realised and validated as follows.

### 5.2.1 Accessibility Discussion

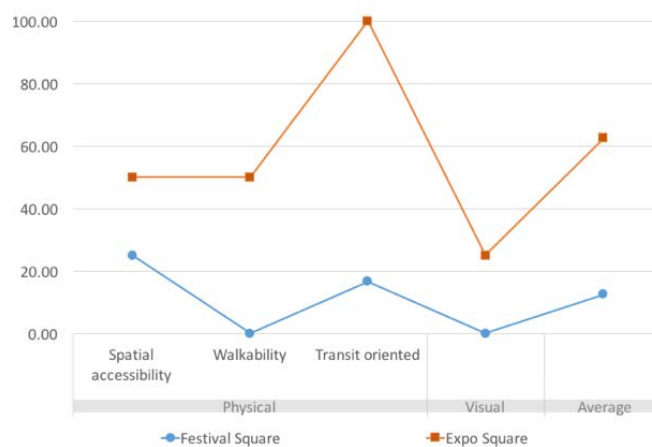


Fig. 2. Accessibility degree of Festival Square vs. Expo Square

In terms of spatial accessibility, the value of Expo Square is higher than that of Festival Square (Fig. 2), which have been



observed by the accessibility map (Fig. 1). Expo Square is located on connectors with a higher value of integration rather than those where Festival Square is located on. Moreover, the Expo Square is surrounded by three routes with three moderately controlled public access points while Festival Square is surrounded by only one Route with three strongly controlled public access points from it and three others from the mall building (Fig. 3, 4).

The transit value of Expo Square scores the maximum value while Festival Square's one is nearest to the minimum value. The result that has been validated by the survey sample showing that diverse means of transit have been used to access the Expo Square while the sample of Festival Square shows the high dependency of using private cars (Fig. 5, 6). Notably, it has been noticed that the power exercised from the developer to relocate the Festival Square within his enclave and away from the public transit is the mere cause of that result. according to the original Land-use of New Cairo [46], [47], the location of Festival Mall has been relocated -upon the developer decision- to the heart of Cairo Festival City (CFC) away from the public transit for at least 1.25 mile. The decision of relocation highlights the elite power with alliance with the public authority to make changes in the land uses. This conclusion supports the argument of White [48] that the elite with their alliance to the state could change land uses of a city according to their profit-making principles.

On the other hand, Walkability value of Expo Square is higher than that of Festival Square (Fig. 7). However, both values are below the medium value as the bounded plots of both squares are large lots with low nearby amenities acting as an obstacle for walkability environment. Regarding this notion, it is sadly observed that some of the workers of CFCM have recently died while crossing the highway 'Ring Road' to reach their work where Festival Square locates on it. These accidents caused them to call this part of the highway as the 'Death Road,' as only the car owners could safely pass this section of the road when getting to CFCM [49], [50], [51].

Regarding visual accessibility, both squares score low value in terms of visual access with higher value goes to Expo Square. According to targeted interviews with some users of Festival Square, they show that even users of the mall didn't recognise this square except only by a coincidence, or when they were discovering different parts of the mall. Others had come to the mall building many times and didn't ever observe this Festival Square at all. The conducted survey, as well, shows that the nonphysical inviting means for the Festival Square is mainly got from social networks while the physical attraction of the site location scored low level; about 75% versus 25% respectively. Also, the sample of Expo Square shows that about 77% of this sample have been invited to the place through the social networks while only about 23% of the sample size see the place location is very attractive.

Consequently, the values deduced from the evaluation sheet are significantly validated while proving that Expo Square has a higher degree of accessibility rather than that one of Festival Square. This result is mainly derived from the reason that Expo Square is located within a transit-oriented heterotopia of

Nasr City with moderately integrated connectors while festival Square located within the heterotopia of New Cairo, a car-oriented development, with low integrated connectors. The result, in turn, proves what has been argued previously by the theoretical part. Therefore, accessibility right is subjected to change under the process of privatization of public space according to the desires of the elite class instead of providing equal access opportunities to the whole society individuals.

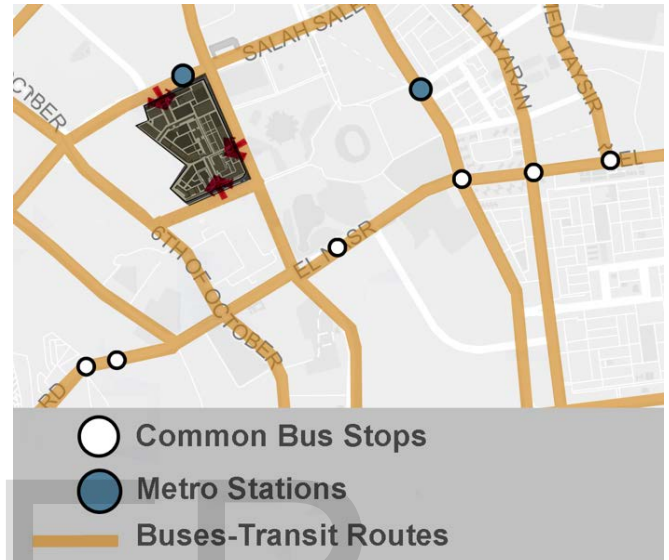


Fig. 3. Expo Square: Current nearby subway stations, buses' stops and routes (based on Quiros and Canales 2015)

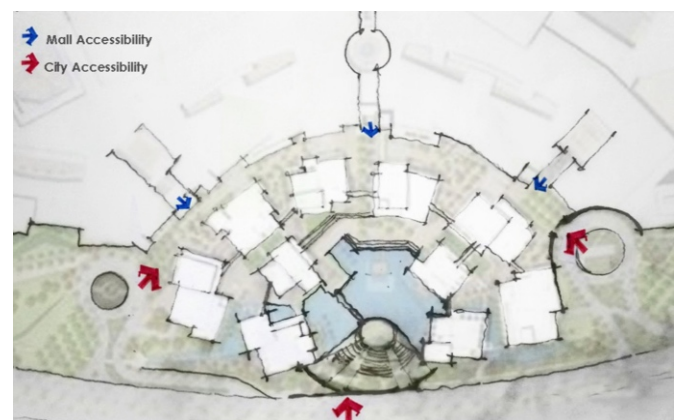


Fig. 4. Festival Square  
 To the Upper: current nearby buses' stops and routes  
 To the lower: the square physical edges and access points

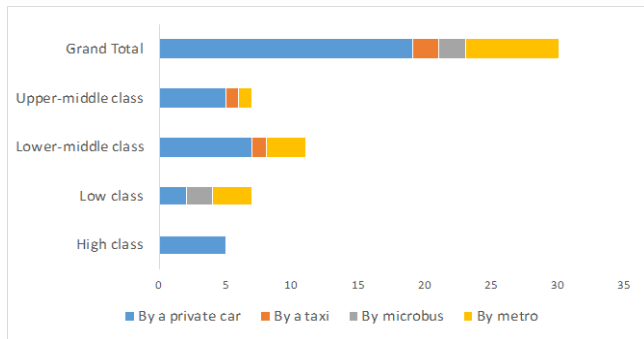


Fig. 5. Transit/ car dependency, Expo Square

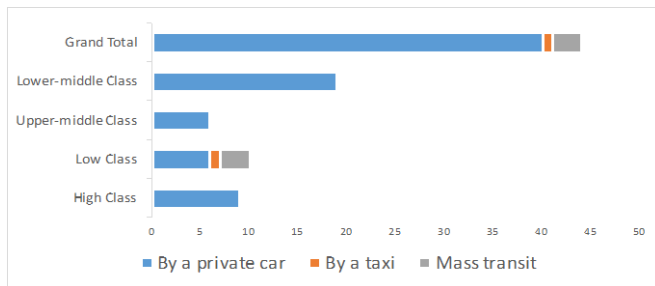


Fig. 6. Transit/ car dependency, Festival Square

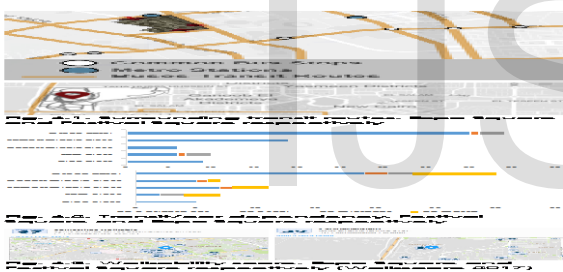


Fig. 7. Walkability score, Expo Square and Festival Square respectively (Walkscore 2017)

### 5.2.2 Social Diversity Discussion

In terms of socioeconomic representation, the evaluation sheet shows that the Expo Square scores the maximum value of representing diverse socioeconomic groups, which is higher rather than what has been provided by the Festival Square (Fig. 8). Although both Expo and Festival squares have affordable entrance's fees, actually affordable versus no fees respectively. The conducted survey shows that about 77% of the sample see the activities' fees in Festival Square ranging from very expensive to unaffordable. While only about 7% of Expo Square sample see the same. The rest of the sample (about 93%) see that activities' fees in Expo Square are ranging from cheap to expensive (Fig. 9, 10).

Also, the targeted interviews with low/ lower-middle income people show that Users have gotten to the place using remotely connected transit preventing them from regularly getting to

the Festival Square. That explains why their presence could be just for one time to discover the place or to celebrate an event. Moreover, as marginalized users, it could be so difficult for

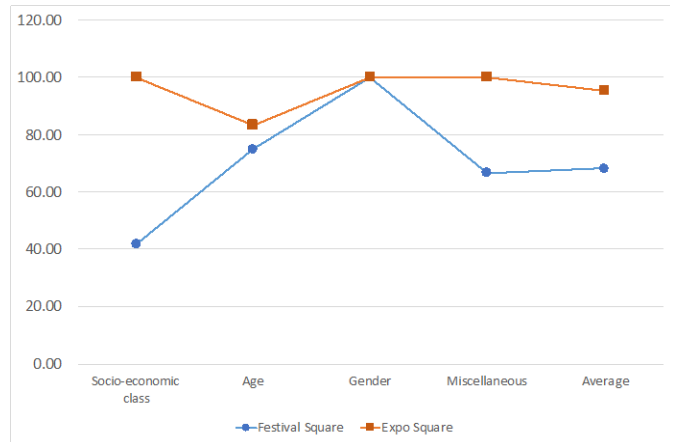


Fig. 8. Social diversity degree of Festival Square vs. Expo Square

them to become the frequent users of the place as paid activities are either expensive or unaffordable for them. Thus, the major celebrated activities are shows and events when coming free of charge (Fig. 11).

On the other hand, the conducted survey shows that all ages with different genders are represented in both squares except for elder and disabled people who are barely represented in Festival Square, as they have been specifically observed in the restaurants and cafés bordering the Festival Square due to the huge different in levels of the terraces forming the horizontal edge (Fig. 12).

Consequently, the values deduced from the evaluation sheet are significantly validated while proving that Expo Square has a higher degree of social diversity rather than that of Festival Square. The result that is returned to the representation of the diverse activities appropriated for diverse socioeconomic groups; which is lower in the Festival Village compared to those in the Expo Land. On the other hand, this result proves what has been mentioned previously in the theoretical argument: under the process of privatisation of public space, there are forms of exclusion for vulnerable people (regarding their socioeconomic status) due to the profit-making principles that celebrate constrained, homogenised or controlled social diversity in the public spaces' articulation [27], [28], [29], [30], [31], [20].

Eventually, the accessibility and social diversity discussions of both squares reveal that the publicness degree of Festival Square is significantly lower than that one of Expo Square based on their accessibility and social diversity degrees.

## 6 CONCLUSION

This paper developed a conceptual framework with measurable indicators (evaluation sheet) to understand how different empowered actors could control publicness degree of a space. It validates the evaluation sheet in the Egyptian context through conducting two cases studies from Cairo governorate to draw a final conclusion about the theoretical argument. The conceptual framework provides two major degrees governing the evaluation of the publicness degree in any public space, accessibility degree and social diversity degree. Through investigating the cases studies, the research concludes that accessibility degree is a prerequisite for attracting diverse socio-economic classes to occupy any public space.

This paper, as well, proved the theoretical argument revealing that the private sector as an empowered actor is controlling the publicness degree of the place according to his profit-making plans instead of targeting all people as equal. In other words, public spaces under the power of public sector have a higher degree of publicness compared to those under the power of private sector in Cairene context.

Finally, this paper believes that on our way to get a comprehensive study of the public spaces from all aspects, several studies should be followed regarding the other rights of public space. Thus, to complete our full understanding of public spaces' articulation, the rights to safety and security, to sociability, and to freedom besides what have been discussed in this paper regarding the right to publicness should be investigated.

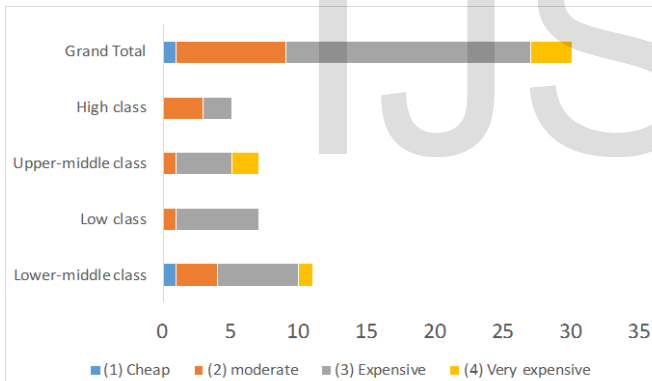


Fig. 9. The affordability issue of socioeconomic groups regarding the activities' fees, Expo Square

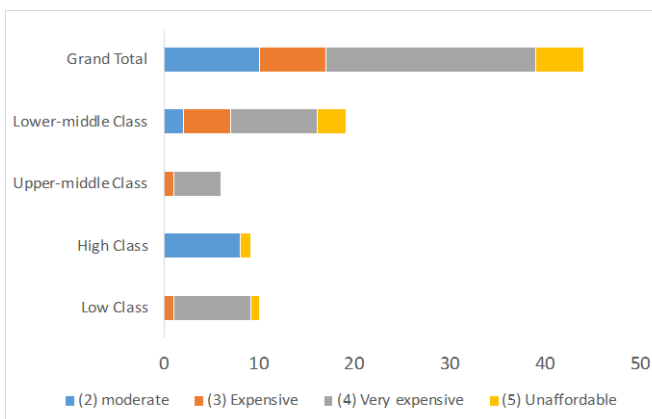


Fig. 10. The affordability of socioeconomic groups regarding the activities' fees, Festival Square

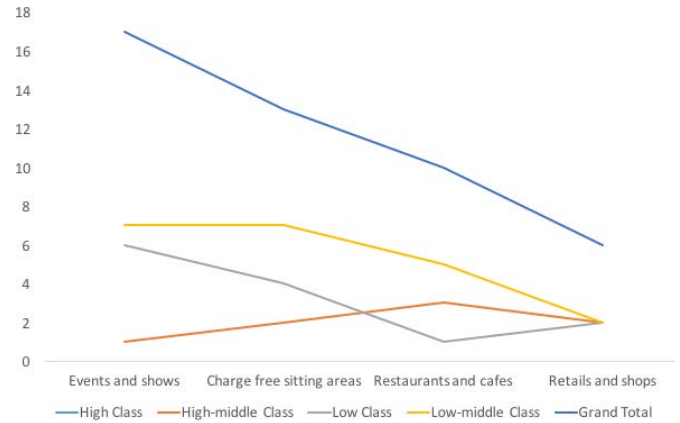


Fig. 11. The desired activities in regard to socio-economic groups, Festival Square



Fig. 12. The huge differences in terraces levels, Festival Square

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