

# Global Built Environment Review GBER

## Open House Publisher

GBER Issue 9.2 July 2014

### Towards a Successful Sustainable Public Space:

#### A parametrical Approach to strengthen sense of Place Identity

(An Egyptian Case Study)

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#### Abstract

Cities are hubs for ideas, culture, economy, productivity, social development and much more. However, many challenges exist to maintain cities, in particular in terms of sustainability. Sustainability has a direct impact on social and economic development as well as on quality of urban places. Spaces are the vital component of the city physical structure. This study is concerning with public gray spaces (Squares in particularly). This paper aims to examine qualities of a successful space within sustainability objectives having cultural and social aspects. The paper discussed this impact of sustainability objectives on public space parameters. The paper suggested an Evaluative and Applied Approach (Parametrical Approach) working within a multidimensional matrix: Successful Sustainable Public Space (SSPS Matrix) to achieve sense of place identity. This Multi-Dimensional matrix integrates Successful Public Space Qualities & Indicators with Sustainability Objectives. The paper presents the proposed (SSPS) matrix within a local Case Study (Tahrir square) as an evaluative approach to Strengthen Sense of Place Identity for Public Spaces.

**Keywords:** Sustainability, Successful Public Spaces, Sense of Place Identity.

### 1-Conceptual Frame work

#### 1-1 Introduction

Public Spaces have been widely studied before as they are the heart of the cities. Winston Churchill defined Public Spaces as “It is the great spaces between the great buildings that make a great city”. Spaces are the vital constituent of the city physical structure; they have an important role to play, (Barton, 2002).

The lack of understanding of people needs (user needs) in public spaces can be an obstacle for urban designers, to create better urban places, where social life can be stimulated and place identity can be achieved. In Egyptian urban environment, we have lack of Public Spaces and more over we miss how to rehabilitate or redevelop our main public spaces. The Public Space offers the opportunity for people meetings, confront the differences, and at the same time it is where we can strengthen social

solidarity and mutual respect, (Kratochvil, 2013). The paper defined the problem and objectives in the following:

### 1- 2 Problem Definition

Although Public Spaces in Cairo City must serve both Egyptian historical and ideological backgrounds, it became a hotbed of revolt. They proved to be effective in providing a stage for people's dialogues and mobilization for revolutionary purposes. While Public Spaces in Cairo Downtown are the heart of the Egyptian Capital, they have deteriorated in urban form, functions and have many circulation problems.

They lack sustainability dimensions and sense of place identity. They also lack good physical form, social connectivity in the urban structure and economical disparities.

Tahrir Square is a physical manifestation of the political and social division of the Cairo city. Tahrir Square (Midan Al-Tahrir), literally "liberation square", has a long and somewhat unusual history as a significant yet unlikely site of protest.

Figure 1 Tahrir square (The Most Important Space in Downtown – Cairo City - Egypt) Source: [www.google.com.eg/search?q=tahrir+square&rlz=1C1RNBN\\_enEG476EG476.html](http://www.google.com.eg/search?q=tahrir+square&rlz=1C1RNBN_enEG476EG476.html)



Tahrir Square (1941)



Tahrir Square in the 1960's 70's)



Circulation in Tahrir Square,



Tahrir Square during the 2011 Egyptian Revolution

### 1-3 Objectives

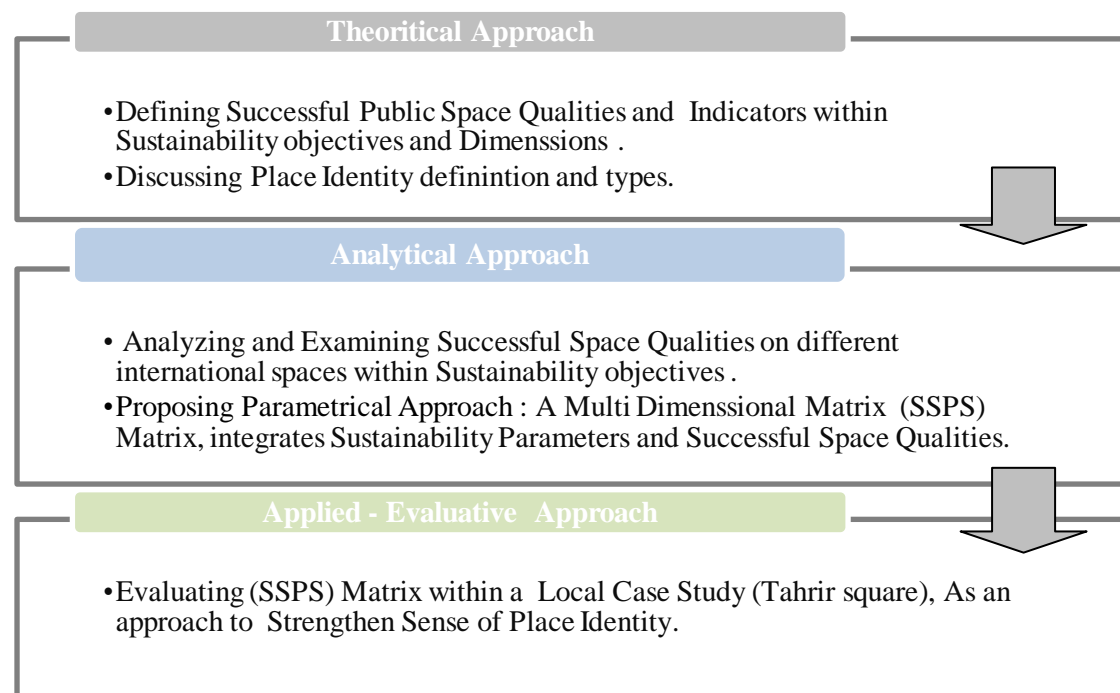
- A. Determining and examining Successful Public Space Qualities.
- B. Discussing the impact of Sustainability Objectives on public spaces.

- C. Proposing a Sustainable Successful Public Space (SSPS) matrix which: -Provides guidelines for redesigning local Public Spaces and Strengthens sense of Place Identity.

#### 1-4 Methodology

The research objectives could be achieved in three approaches as follows:

Figure 2 Research Methodology



## 2-Theoretical approach: Public Spaces Qualities within Sustainability

One of today's challenges consists in bridging the gap between ecology and physical planning, (Gontier, 2006). This part focuses on main definition and issues on public spaces concerning place identity, aiming to determine successful public space indicators.

### 2-1 Public Space: (Definition & Typology)

#### A-Definition:

It is evident that the concept of public space is used in a wide range of contexts. Critical aspects in the conception of public space are related to the extent that these spaces are accessible, by whom they are owned and controlled and managed to contribute positively to the generation of public spaces, (Alexander, 1987). In 1990

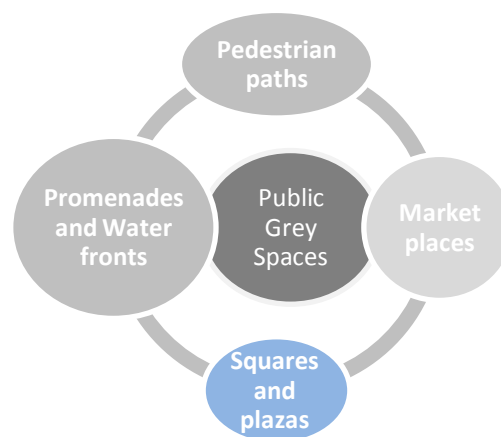
Lynch explained the importance of the procedure of urban drawing in the construction of modern cities, where public space enhances an intense urban living as long as it contains vitality, accessibility, sensation and control. "A public space is the voids in a built environment and landscape which are of primary importance to the public community. Squares or streets and the linkage points between them", (Lynch 1980). Every space has a spatial character which is affected by proportion, scale, size of parts relative to each other, color, texture, furnishing and finally its activities. We need to develop an appropriate understanding of them and to treat them as dynamic physical objects with a multi-dimensional elements, (Gontier, 2006)

Therefore, many scholars argue that in order to obtain a better understanding of urban space, our investigations of its nature and its components should be multidisciplinary dimensions which integrates the spatial aspects with human, social, cultural and historical dimensions, (Carmona et al, 2010)

### B-Typology :

According to (Campbell, 2001) spaces could be classified into 2 main typologies: Gray space and Green space. This paper concerns gray space: Gray space referred to civic or public space. It is a subset of open space, consisting of urban squares, market places and other paved or hard landscaped areas with a civic function. Spaces may be enclosed by buildings as walls or any opaque barriers or even by colonnades. Squares as public spaces are the core ideology of this study.

Figure 3 Typology of public gray space



### 2-2 Public Space Qualities and Place Identity relationship

In this part we answered the following questions: what makes space successful? and What makes built environment has an Identity? There was a key Idea of meaning which begins with order then Function and finally what we called social understanding. In this part of the paper we determined qualities of successful public space that strengthen sense of place identity. Place identity concerns the meaning and significance of places for their inhabitants and users. Methodologies for understanding place identity primarily involve qualitative techniques, such as interviewing, participant observation, discourse analysis and mapping a range of

physical elements. Place identity is sometimes called urban character or local character. (Hague et al, 2005).

There are a number of possible explanations of public space qualities. One of them is a fine and managed landscape the other is historical meaning which form significance and culture. The best that can be done to our built environment development is to conserve the past, while producing technically workable settings today which will acquire character for later generation( Nuno, 2012). There are 4 groups or sets of qualities which results in a successful space:

**A- Visibility:** While designers traditionally focus on visible space, it is not as prominent to most observers as is sight and sound of other human beings. The designer can make activity visible, provide places for meetings, promenades, and celebration and can reinforce the conduct and mood of action. (Lynch, 1990)

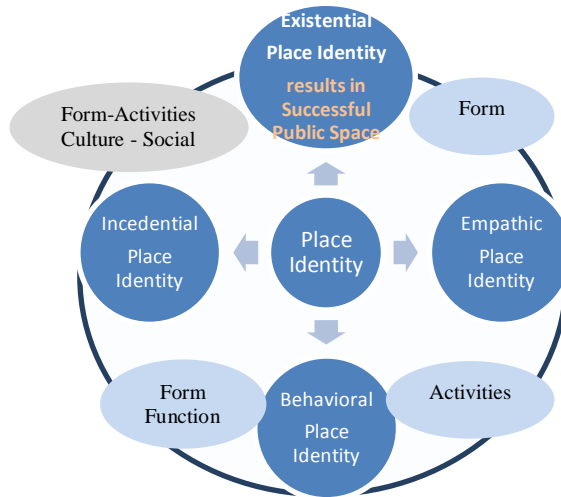
**B- Sequences.** Any single view is less important than the cumulative effect of a series of views. A landscape is also a network of sequences along the streets, walkways, and transit. Question of orientation become significant: the apparent direction towards goal, the making of the distance traversed and the clarity of entrance and exit. Each scene is an introduction for the next scene so each event should prepare for the next.

**C-Communication:** A landscape communicates meanings to its users, whether by explicit symbols or by the observer's Knowledge of the meaning of visible shapes. These meanings are frequently embodies in intention symbols such as: words, icons, or conventional referents. These signs are necessary and interesting. (Haaren, 2002)

**D-Surfaces:** The texture of walls, roofs, and floors are very noticeable characteristics of the urban scene. The city floors are the most important: one touches it as well as sees it. Changes of level force one's attention while textural patterns guide and express directions. Textures neutralize or dramatize form. (Simonds, 2006)

Public spaces should have a clear urban identity and should be recognizable, memorable, engaging attention, and differentiated from other locations. These previous qualities support sense of belonging. Each quality should be well studied to achieve place identity.

Figure 4 Successful Public Space and Place Identity relationship



### 2-3 Types of Place Identity:

**Existential:** Where place is lived and dynamic, full with known meanings and experiences.

**Empathic:** Where place records and expresses the cultural values and experiences of those who create and live in it.

**Behavioral:** Where place is an ambient environment possessing qualities of townscape which constitute a primary basis for public space knowledge.

**Incidental:** Where the selected functions are more important than place identity.

**Mass identity of place:** Where an identity is provided more or less ready-made by the mass media, and are remote from direct experience. It is a superficial and manipulated identity, which undermines both individual experiences and the symbolic properties place, (Carmouna, 2010).

### 2-4 Sustainability Objectives and Dimensions:

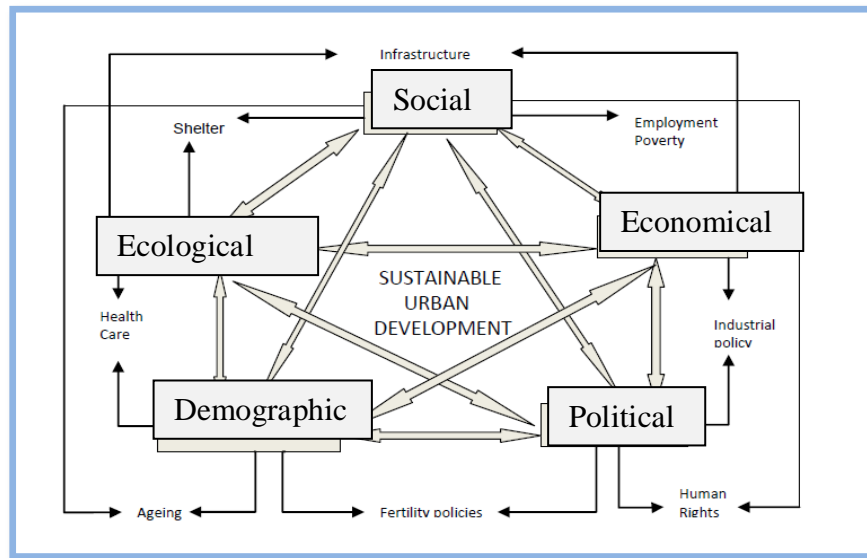
We are searching for some kind of harmony between two intangibles: A form which we have not designed yet and a context which we cannot properly describe, (Alexander, 1987). Awareness and appreciation of environmental perception and in particular, of perception and experience of PLACE is an essential dimension of Urban Design, (Carmouna, 2003).

#### A-Sustainability Definition

There are literally hundreds of definitions for 'sustainable' but the basic idea is that if something is sustainable it can keep going indefinitely. Natural systems have been operating successfully for millions of years. Nothing made by humans can do that.



Figure 5 Sustainability main components (Pelling, 2003)



Sustainable development is a widely accepted strategic framework for decision making about the future use of land, but it is not very well adopted in landscape research and planning. Sustainable landscape development aims to ensure the long term potential of the landscape to sustain ecological, cultural and economic functions, (Opdam, 2013). The interest in environmental perception has been reinforced by a body of work focusing on experiential (sense of place), exploring how people perceive environments and experience places, (Carmouna, 2003). Ecological and social dimensions are the 2 main dimensions of sustainability which are integrated with the Morphological dimension. Sustainable communities meet the diverse needs of existing and future residents. Sustainability makes effective use of natural resources, enhances the environment and promotes social, cultural, economic cohesion, and strengthen economic prosperity.

### B-Sustainability Dimensions and Objectives

The application of conceptual sustainability dimensions needs to be interpreted practically into goals and objectives. The following table sets sustainability goals and objectives that have to be achieved. They are driven from the sustainability dimensions applied to Public Spaces Qualities.

Table 1: Sustainability Dimensions, Goals and Objectives.

Sustainability Dimensions	Goals & Objectives
Ecological & Local Environment	<p>Reduce the need to travel.</p> <p>Reduce car reliance.</p> <p>Increase energy efficiency in buildings.</p> <p>Reduce demand for non-renewable resources.</p>

	Promote local distinctiveness and heritage. Reduce transport emission. Enhancing local environmental quality. Improve local air quality. Promote an active life-style (especially walking).
Social	Reduce the chance of vehicle/pedestrian accidents. Increase Street safety:-Reduce the fear of violence. Viability of public transport. Increase user/citizen control. Choice of transport mode for trips accessibility. Facilitate accessible social networks. Promote mental health.
Economical	Increasing freedom Of choice local work. Accessible jobs for those tied to the locality .

(Williams, 2000) & (Shirley, 2005)

In recent decades, urban planning has adopted more communicative and collaborative approaches and perspectives. It is considered that a clearer appreciation of the political space for the creation of healthier environment for communities could be helped through an understanding of development concepts, (Whittingham, 2013)

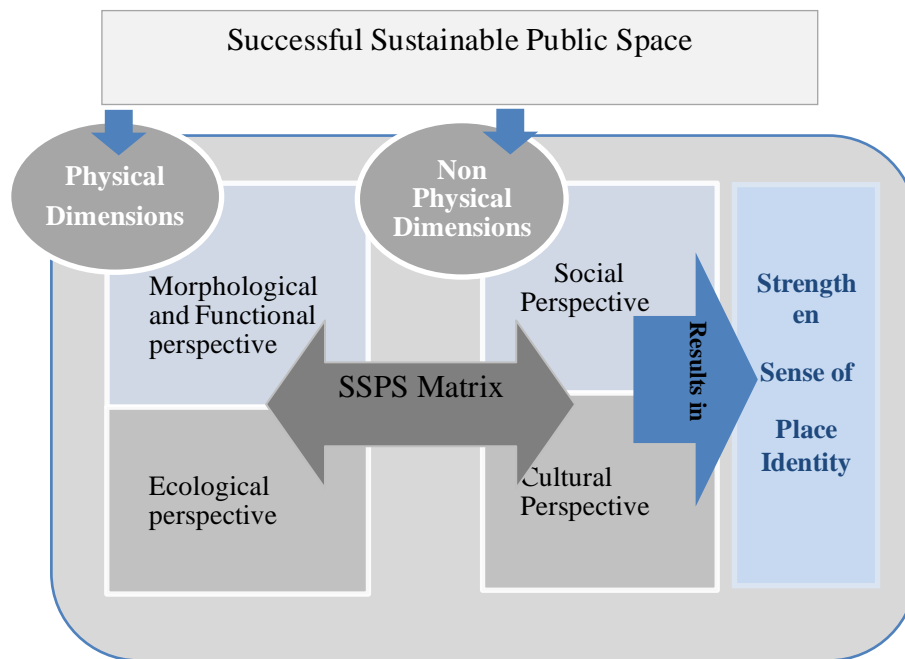
### Theoretical conclusion

It is concluded that integrating Public Space Qualities with Sustainability Objectives and considering cultural and social dimensions will enhance and strengthen sense of place Identity. The following parameters define the integration between public space qualities and sustainability objectives:

- Distinctive landscapes
- Natural features
- Locally distinctive built form
- Streets patterns which respond to the context
- Special spaces of natural or cultural significance
- Skylines and roof scapes.
- Building materials
- Local culture and traditions



Figure 6 Integrating Public Space Qualities with Sustainability objectives



### 3-Analytical approach

#### 3-1 Examining Successful Public Space Qualities

When spaces work well, they serve as a stage for our public lives. A successful public space could have many Indicators in order to gain an understanding of good form, perception and achieving high level of functions. These indicators or attributes could be listed as follows and classified into 4 groups: Morphological -Perceptual-Functional - Accessibility indicators.

**Table 2 Successful Public Space Qualities & indicators**

QUALITIES & INDICATORS		MEASUREMENTS
Morphological & Perceptual	safety & suitability	crime statistic
	Legibility walk ability	
	History	building conditions
	Attractiveness readability	Proximity traffic data
Accessibility	Cleanliness	environmental data
	walk ability	transit usage
	Accessibility	Parking usage patterns
	Reliability	pedestrian activity
Functional	Activities and events	Property Value

	<b>Vitality</b>	<b>Land-Use Patterns</b>
	<b>Usage continuity</b>	<b>Local Business ownership</b>
<b>Social</b>	<b>Co-operation street life</b>	<b>Evening use</b>
	<b>Theme &amp; Concepts</b>	<b>Welcoming interactivity</b>

Adapted from (Carmouna ,2003,)

### 3-2 Comparative analysis for International Successful Public Spaces

A successful public space have been studied in the following section to analyze and examine successful space qualities within sustainability indictors in order to gain a full understanding of good form and achieving high level of functions .

A- **Trafalgar Square:** it is an important historical public space and tourist attraction in central London, England. It is situated in the borough of the City of Westminster. Nelson's Column is at the center, which is guarded by four lion statues at its base.

Figure7 Trafalgar Square–London–UK

Source: Great London Authority

[www.london.gov.uk/priorities/arts-culture/trafalgar-square](http://www.london.gov.uk/priorities/arts-culture/trafalgar-square)

Qualities are: Attractiveness street life - walk ability - Reliability convenience - transit usage Continuity - accessibility - pedestrian activity - Diversity Social networks.



Source: Trafalgar SquareFrom Wikipedia, the free encyclopedia

[www.en.wikipedia.org/wiki/Trafalgar\\_Square](http://www.en.wikipedia.org/wiki/Trafalgar_Square)

Trafalgar Square, 1908



A 360-degree view of Trafalgar Square just over a century later, in 2009



**B- Eldon Square:** it is a commercial public space New Castle, England.

Old Eldon Square is a public square - site of a war memorial and location for the city's . Figure 8 Eldon Square – New Castle

Source: Eldon SquareFrom Wikipedia, the free encyclopedia  
[http://en.wikipedia.org/wiki/Eldon\\_Square](http://en.wikipedia.org/wiki/Eldon_Square)  
[http://en.wikipedia.org/wiki/File:Eldon\\_Square-2.jpg](http://en.wikipedia.org/wiki/File:Eldon_Square-2.jpg)

Taken by :John Salmon

Qualities: Natural elements - cultural significance – sustainability - Hard and Soft Landscape elements - pedestrian activity Diversity - Friendliness - Storytelling – Theme Attractiveness street life walks ability.





### c- Azadi Square

Figure 9 Azadi Square – Iran – revolution

Source <http://foursquaresmovements.wordpress.com/space> four squares movements  
 Arena & public space [http://en.wikipedia.org/wiki/File:Azadi\\_Square\\_in\\_Tehran\\_Iran.jpg](http://en.wikipedia.org/wiki/File:Azadi_Square_in_Tehran_Iran.jpg)  
 taken by:Hoo perag

Qualities: History Continuity accessibility pedestrian activity Vitality storytelling:  
 theme and concepts - Improve local air quality Environment - promote an active  
 life-style d-(especially walking).



B- St. Marco Piazza-Venice: It is the principal public square of Venice, Italy, where it is generally known just as "the Piazza" (la Piazza). All other urban spaces in the city (except the Piazzetta and the Piazza Roma) are called "campi". The Piazzetta (the 'little Piazza') is an extension of the Piazza. The two spaces together form the social, religious and political centre of Venice.

Figure 10 Piazza Saint Marco – Venice source:

[http://en.wikipedia.org/wiki/Piazza\\_San\\_Marco](http://en.wikipedia.org/wiki/Piazza_San_Marco) taken by: Ingo mehling



Carmona et al. (2010) pointed out that well integrated public spaces surrounded by the edges of buildings could help in adding vitality to the public realm. The idea as argued by Koltsova, (2011) is that more attention should be giving to the aspects of the monumental city design tradition which emphasize that spaces should be enclosed and giving definitive form in order to establish continuity from building to building as well as monumental spatial relationship.

From the comparative analysis study we can sum up the characteristics of Successful Public Space:

1. Promoting human contact and social activities.
2. Providing safety, welcoming, and accommodating for all users.
3. Containing Architectural features are visually interesting.
4. Having a unique Place identity and urban character.
5. Promoting community involvement.
6. Reflecting the local culture and history.
7. Well maintained.

### **3-3 A Proposed Parametrical Approach to strengthen sense of place Identity**

Urban vitality based on a high density of diverse communicative offerings that allow (you) to become highly selective. "The sustainability aspect of modern cities has to be integrated with other design functions. The environmental sustainability of the processes of the city's material production and reproduction is an important constraint for designers. The ecological challenges and opportunities must be used to generate concepts, techniques and tools which allow designers to ramp up the communicative environment, (Schumacher, 2013).

Morphological output variables can be programmed to respond to environmental input parameters. Physical indicators could be classified into 2 groups: Morphological Dimensions and Ecological Dimensions. The Non-physical Indicators could be classified into 2 groups: which are social and cultural dimensions.

A parametrical approach proposed to work within particular parameters as follows:

Figure 11 The Proposed SSPS Matrix

<p><b>Moprho Functional : MF parameters</b></p> <p><b>A- Perceptual</b></p> <p>MF1- Space Recognition MF2- way finding MF3- visible structure MF4- memorable image MF5- Concepts and theme MF6- Engaged with site MF 7- Meaning and significance MF8- smell and noise MF9- Dynamic and static elements MF10- vitality MF11- character and style MF12- Proportion and scale MF13 - Harmony MF14- contrast MF15- Hard scape(texture and materials) MF16- Soft scape (shape and types) MF17- Colours identifing&amp; reflecting MF18- light(direct and sharp) MF19- Materials -textures - sound MF20- low maintenance</p> <p><b>B- Functional</b></p> <p>MF21- Mixed Land Use MF22- Changed LandUse MF23- Activities attract people MF24- Fixed Locations</p> <p><b>C- Circulation</b></p> <p>MF25- Accessibility managed and secured MF26-flexible street shape network MF27- Vehicle flow MF28 - Reduce chance of acciedents MF29- No. of transportaion nodes MF30- Signaging</p>	<p><b>Ecological : E parameters</b></p> <p>E1- Maximum use of existing features E2- Minimizing negative environmental impacts and pollution E3 -Providing qualities of land scape E4- Maximum use of local and recycled materials E5-maximizing outputs of renewable resources E6- Minimizing inpputs of non renewable resources during E1construction and maintenance E7 - Reduce level of car reliance E8 - Pedestrian and bicycle paths E9 - Encouraging activities and relaxation E10 - Encouraging walking activities E11- Improve Local air quality E12- Reduce the chance of vehicle/pedestrian accidents</p>	<p><b>Socio Cultural: SC Parameters</b></p> <p>SC1- livability &amp; Vitality SC2- Recording &amp; Expressing Cultural values SC3- Viability of public transport SC4- Self relation to society SC5- encouraging social communication SC6- encouraging community participation SC7-enhancing local security and amenity SC8- Improving hisorical importance SC9-Providing Local / National Significance SC10- Conservation and redevelopment SC11-Increasing User Control SC12- Promote mental Health</p>
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## 4- Applying and Evaluating the Proposed Parametrical Approach

From the previous analysis of sustainability indicators and successful space qualities we could suggest a multi-dimensional matrix to be applied on public spaces, aiming to achieve sense of place identity.

### 4-1 An Egyptian case Study (Tahrir Square)

Tahrir Square was a central square in the city located in Downtown Cairo. Tahrir Square's site represents a long history of colonialism, foreign capitalism, and is surrounded by a number of significant political, cultural and academic buildings.

It grew out of the accumulation of leftover spaces over time to form its huge trapezoidal contours. It is an ideal center for protestors to articulate their visions. For a new Egypt and symbolically reclaim the city through mass occupation.

### 4-2 Applying and evaluating the SSPS Matrix to Tahrir square

(Qualitative-evaluative criteria) Parameters indicators could be shown into 2 steps:

**First: Each parameter is referred to as true or false.**

**Second: If true it was ranked as (poor – fair - good)**

**SSPS matrix had been applied on Tahrir Square as follows:**

Table 3 Tahrir Square SSPS matrix

Applying Parameters					
Morpho-functional MF		Ecological E		Socio Functional SC	
MF 1-Space Recognition	3	E1- Maximum use of existing features	0	SC1- livability & Vitality	3
MF 2- Way finding	0	E2- Minimizing negative environmental impacts and pollution	0	SC2- Recording & Expressing Cultural values	0
MF 3- Visible structure	2			SC3- Viability of public transport	3
MF 4- Memorable image	1	E3 -Providing qualities of	0	SC4- Self relation to society	0
MF 5- Concepts and theme	0	Landscape		SC5- Encouraging social communication	2
MF 6- Engaged with site	2	E4- Maximum use of local and recycled materials	0	SC6- Encouraging community participation	2
MF 7- Meaning and significance	3	E5-Maximizing outputs of renewable resources	0	SC7-Enhancing local security and amenity	0
MF 8- Smell and noise	1	E6- Minimizing inputs of non renewable resources during	0	SC8- Improving hisorical importance	1



		construction and maintenance			
MF9- Dynamic and static elements	3	E7 - Reduce level of car reliance	1	SC9-Providing Local /National Significance	1
MF10- Vitality	3	E8 - Pedestrian and bicycle paths	0	SC10- Conservation and redevelopment	2
MF11- Character and style	0	E9 - Encouraging activities	3	SC11-Increasing User Control	0
MF12- Proportion and scale	0	E10 - Encouraging walking activities	3	SC12- Promote mental Health	2
MF13 - Harmony	0	E11 - Encouraging Relaxation	0		
MF14- Contrast	1	E12 - Reduce the chance of vehicle/pedestrian accidents	1		
MF15- Hard scape(texture and materials)	0				
MF16- Soft scape (shape and types)	1				
MF17- Colors identifying& reflecting	1				
MF18- light(direct and sharp)	1				
MF19- Materials & textures	0				
MF20- low maintenance					
B- Functional	3				
MF21- Mixed Land Use	2				
MF22- Changed Land Use	3				
MF23- Activities attract people	3				
MF24- Fixed Locations	0				
C- Circulation					
MF25- Accessibility managed and secured	2				
MF26-flexible street shape network	0				
MF27- Vehicle flow managed	0				
MF28 - Reduce chance of accidents	3				
MF29- No. of transportation nodes	2				

True ranking: 1Poor - 2Fair - 3good & ( Zero) for False

Tahrir Square is an open space on the east bank of the Nile at the center of Cairo. The east side of the Square is bounded by Haussmann-inspired seven story buildings containing many hotels with some shops at street level. On the opposite side, between the square and the river are monumental, At the north end is the Egyptian Museum, at the south are government offices. Figure 12 Tahrir Square – Cairo downtown – Qualities [www.livablecities.org/articles/tahrir-square-and-birth-democracy](http://www.livablecities.org/articles/tahrir-square-and-birth-democracy)

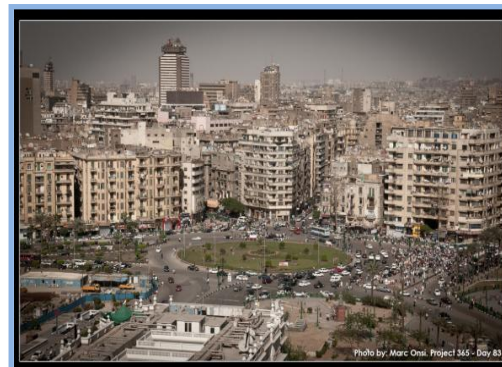
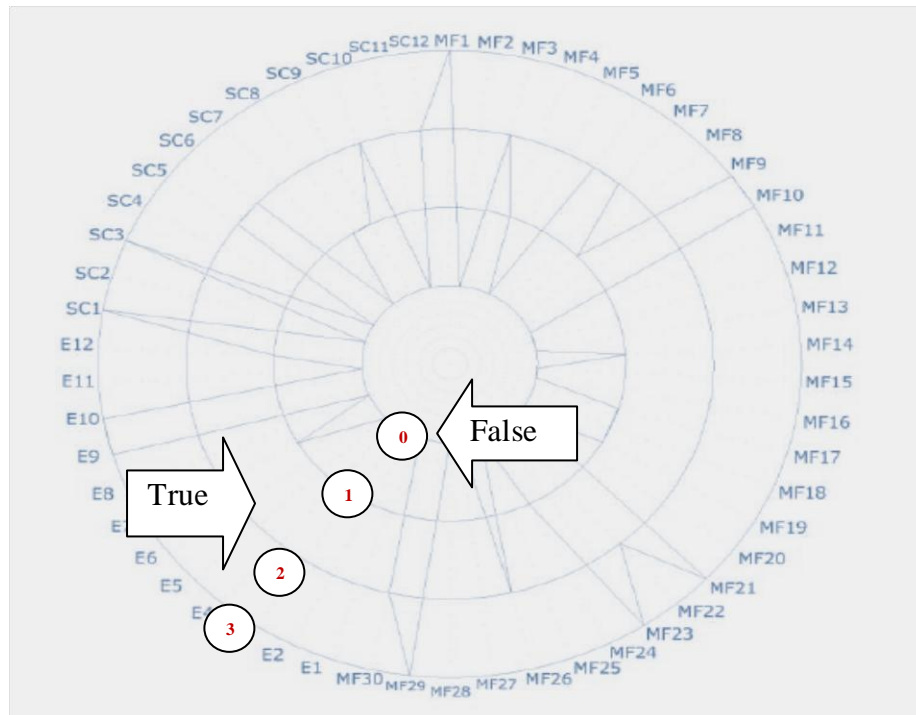






Figure 13 Tahrir Square lacked of way finding - Vehicle flow managed - Fixed Locations -- street shape network - materials & textures – maintenance - Colors identifying& reflecting - Soft scape (shape and types)- light(direct and sharp) - Concepts and theme – character and style proportion and scale .The following figure illustrates Tahrir Space values in SSPS matrix.

Figure 14 Tahrir Square SSPS matrix



## 5- Conclusion

- Qualities of public spaces depend not only on how well these spaces are designed but more importantly on how they are managed, maintained and integrated with ecology society and cultural aspects.
- A wider exploration of different dimensions that affect public space qualities and a deeper understanding would also help to develop a well-integrated urban design model for the promotion of well-designed public space.
- Society needs a sense of identity and belonging to a specific place. This will provide an anchor of shared experiences between people over time. Individuals need to express a sense of place identity to a collective urban place.
- This paper proposed an approach based on integrating morphological, social and ecological parameters to achieve sustainability objectives in local Public spaces in order to strengthen sense of place identity.
- The paper suggested a set of parameters that could be used as an indicator of sustainability, these parameters utilized to develop a multidimensional matrix integrating: sustainability objectives and successful public space qualities into 3 main groups of parameters: Morpho-functional, Ecological and Socio-cultural. Such a matrix was applied to create an attractive public realm, to promote mental health, and social communications.
- The proposed SSPS matrix was applied on Tahrir Square to evaluate it's parameters and proved the following w:
  - Examining the Morpho functional parameters Tahrir space lacked : way finding - Vehicle flow managed - Fixed Locations -- street shape network - materials & textures – maintenance - Colors identifying& reflecting - Soft scape (shape and types)- light(direct and sharp) - Concepts and theme – character and style proportion and scale .
  - Examining the ecological parameters Tahrir space lacked: Maximum use of existing features - Providing qualities of landscape - Maximum use of local and recycled materials - Reducing level of car reliance- Maximizing outputs of renewable resources - Minimizing inputs of non renewable resources during construction and maintenance - Environmental impacts and pollution.
  - Examining the socio functional parameters Tahrir space lacked: enhancing local security and amenity - Improving historical importance - Providing Local /National Significance- Increasing User Control.
- Applying the proposed matrix while redeveloping local public spaces will enhance and strengthen sense of place identity, which could direct urban designers to achieve a successful sustainable public space.
- The previous findings provided a multidimensional matrix which could be applied to public spaces to support redesigning and redevelopment strategies.

## 6- Recommendations

- The test of place identity does not emerge only from its urban form, but it is the degree of which it is legible, remembered and identified by its people. Since it is a function of the observer's mental image, identity can also be increased by educating the observer, and by training him to see significant differences that he never noticed before.

- An Urban Designing expert's survey should be carried to examine the proposed (SSPS) Matrix and its parameters.
- A social survey should be carried out continuously to reevaluate the proposed matrix (SSPS) in order to achieve sustainable successful public spaces.

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