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## ANALYZING FAN ZONES HIERARCHY IN THE CITY AT FOOTBALL MEGA EVENT; APPLI ANALYZING FAN ZONES HIERARCHY IN THE CITY AT FOOTBALL MEGA EVENT; APPLIED STUDY: BORG EL ARAB STADIUM, ALEXANDRIA, EGYPT

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## Abstract

Fan Zones is not just a seat in the amphitheater; it is a holistic concept deals with fans motions and requirements since their involvement in the city. Since the beginning of football game and championship; fan zones had witness a series of upgrading sequential mega events; this upgrading or development was according to contemporary aspects and age requirement. By the beginning of the Third Millennium; fan zones were the main motive that shaped and developed stadia characters; whereas fans were the spirit of the mega event and the first priority in designing the national & international stadia as well as designing the events. Designing of football fan zones at mega events depended mainly on directing fans through a sequential spaces; starting from cityscape scale till they reach the stadium site. The design considers fans' nature and their practical needs throughout this journey at events' time; also the design differs in the scale according to the zone scale in the city. So by analyzing the impact of fan zones hierarchy in the city, it was easy to conclude the of design criteria in order to analyze one of internationals stadia that failed to host World Cup2010; Borg El-Arab Stadium, Alexandria, Egypt. The analytical study clarifies the points of weakness and strength of the Stadium, especially the shortage of capability to attract fans sense. The paper outcomes provide the recommendations for future stadia design "especially in Egypt", which suggests the design starts with good choice of functional location that fulfill fans expectations and emotions. The weakness of international stadium in attracting fans around the year is an evidence of its failure in appropriate hosting for football mega event; lack of amities and attraction point has bad influence on the event atmosphere and its success.

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Hosting Facilities, Stadium Design, Football Fans Zones, Fan zones history, Mega Events.

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Yoseph, Walaa El-Sayed<sup>1</sup>

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## INTRODUCTION

Football is one of the world's most popular games, with the widest range of fans all over the world, those fans aren't just spectators, they are enthusiastic admirers, devotees, and extremely loyal people to football<sup>i</sup>. Moreover, there are Ultras<sup>1</sup>, a type of football fans renowned for their fanatical support and elaborate displays. Their behavioral tendency includes the use of flares, vocal support in large groups, and banners at football stadiums, to create an atmosphere that encourages their own team and intimidates opposing players and supporters. Occasionally; some of them can be overly extreme or violent, which requires more safety design to protect fans. Football fans can be numbered by thousands<sup>1</sup>, so they are often claiming entire sections of a stadium for themselves, Ultras have their seat allocations and other facilities such as storage rooms for flags and banners<sup>ii</sup>. They have always access to the stadium before matches in order to prepare displays, in addition; their attendance to city is starting early, they are circling and rounding in the city for joy and gathering support<sup>2</sup>, which is required to be considered in architectural design process to fulfill fans exceptions and pleasures. Nations, cities, organizations are caring for good attendance in order to achieve good success of the event and good benefits both economically and socially<sup>iii</sup>, so that fans are the big and the first aspect in design process of stadia.

## UPGRADING OF FAN ZONES REQUIREMENTS IN STADIA THROUGH HISTORY:

Modern football was born in 1863, when the Football Association in England was formed<sup>iv</sup>. Dublin Lansdowne Road (1872) was the first purpose to build football stadium in Ireland<sup>v</sup>. Since then; stadia's design followed one of the two historical examples; Greek or Roman, both examples had appropriate viewing system for spectators and accomplished all necessary facilities<sup>5</sup>. Therefore; football stadia saw two main phases: the first;

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stadia before the Nineteenth century, the second; football stadia since the second half of the Nineteenth Century.

### ***Stadia before the nineteenth century:***

Before Nineteen century and for different three eras, football games weren't like today, they had different rules and were played at Athletics stadiums<sup>4</sup>.

#### **First era (8century BC - first century BC):**

The origin stadia back to the Greek era in the eight-century BC ( $\cong 776\text{BC}$ )<sup>4</sup>; the Olympia stadium in Greece was a stone stand with two separate entrances; one for judges and the other for spectators. It was elongated-U-shaped, has the three sides of the track, two parallel rectilinear sides (192 m long) and one bended side (32 m wide). The fourth side was open to the landscape. So spectators could watch the games, cheer the players freely, and enjoy the view at same time. As Games became popular; it was extended to welcome up to 45,000 spectators, and more stadia that are similar were built in many Greek towns<sup>5</sup>.

#### **Second Era (First century - Fourth century AD):**

At the first century BC; the known concept of amphitheater has shown up in Roman era<sup>5</sup>. It was fully encompassed elliptical layout with amphitheater; the spectators could focus only on the central area for the games, forming the typological evolution of the prototypes of a stadium. Spectators' tiers were four side closed building, arranged on a natural slope, the lower part was made of stone, and the upper were made of wood. Roman stadium main characteristics were their large dimensions (600 m long and 200 m wide) and its capacity (could welcome about 200,000 spectators)<sup>5</sup>. In addition, for the first time in history, there were recreation facilities, the stadia had large open spaces occasionally used for some more public activities to be a part of the community facilities<sup>4</sup>.

#### **Third era (Fourth century- Fourth century AD):**

since the 4<sup>th</sup> century AD; sports were suspended for some political and social conditions<sup>5</sup>. Sports activities were seldom and the ancient Greek and Roman sports buildings were abandoned, many of them were converted into markets or houses; others were fully pulled down to reuse building materials. By beginning of Renaissance; there were limited sports activities, and they did not take place in a specific facility, they were in areas serving other purposes, such as large open spaces and squares, which were often provided with temporary wooden tiers and small roofs for the most important spectators<sup>5</sup>.



Figure-1 vi: Olympia stadium (8<sup>th</sup> century BC), its design depended on providing a very specific viewing area to spectators, beside natural view.



Figure-2 vii: Roman stadium (1<sup>st</sup> century AD), its design had a fully enclosed seating configuration, events were viewed all over the display area, beside some recreation facilities in the back.



Figure-3 viii: Football game at public squares, Santa Maria Piazza, Novella, Florence, 1555AD, temporary chairs surrounding rectangle field, sometimes there were tent cabin for VIP.

<p>It hosted the Royal Athletics Games for four centuries<sup>5</sup>.</p>	<p>It hosted the Royal Athletics Games for three centuries<sup>5</sup>.</p>	<p>Squares were hosting old football games for four centuries<sup>5</sup>.</p>
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### ***Football stadia since the second half of the nineteenth century:***

In the second half of the Nineteenth Century, there was the setting up of the first club and sport federation<sup>4</sup>. The enthusiasm for football grew quickly in Great Britain followed by other countries, thanks to the population and urbanization process resulting from the Industrial Revolution. There was urgent need to build new facilities that could welcome a high number of spectators and fans<sup>ix</sup>, which had formed the awareness of sport importance to individuals and community, and produced new and marked age of stadia. This was for five sequential "steps" of progression<sup>5</sup>.

#### **First-step stadia 1872-1950 (Hosting):**

The main purpose of stadium's design was to host spectators as possible as it could be in an age when sports events could be watched only live (there was no television)<sup>5</sup>, stadium at the beginning were uncomfortable, and the provision of facilities was basic. Tiers were made of wood or concrete, with just the arrangement of embankments standing that often were cramped, provided with a small roof occasionally for the VIP. Seats were disorderly and non-homogeneous extended according to increasing of fans<sup>5</sup> (**Fig4**). Then another model was introduced in Great Britain as a football facility, it had a typical rectilinear stands running parallel to the one side of the pitch<sup>4</sup> (**Fig5**). Soon it was adapted to the other models of football stadium with continuous tiers running along the perimeter of the athletics track, so the games were viewed all over the display area (**Fig6**) which fitted the passion of football fans, this model was exported from Great Britain to the rest cities of Europe and South America<sup>9</sup>. To sum it up; stadia had many deformations till they became able to welcome large crowd of spectators (**Fig7**).stadia used to be crowded, smoked filled, wooden or concrete structures, without adequate life of safety design, and no special facilities for spectators in or outside stadiums.

### **Second-step stadia 1950-1990 (Equipment):**

As a result of the TV coverage of the most important sports events. Spectators preferred the images coming from their home TV over the stadia, due to the uncomfortable, unwelcoming visibility conditions at stadia<sup>9</sup>. In order to deal with this issue, the stadia were started to be equipped with more facilities to attract wide range of fans ,for example the welcome television-broadcasting systems, seats had better view angles, stands became roofed, and higher number of toilet facilities, food and beverage outlets in the stands area<sup>9</sup>. It was the start of the concept of inner fan zones (Fig8). especially by 1970's; when the market saw the appearance of the specialized and dedicated sports architecture practice<sup>9</sup>, who produced new image of fans facilities with amenities (greater revenue, more luxury suites, and higher quality finishes)<sup>5</sup> (Fig9). Moreover, there were artificial lighting installations to ensue night broadcast. A common element of that age; the stadia concept was an introverted element in the city although their inner facilities<sup>5</sup>, football stadia were a comfortable inside yet anonymous outside, missing both indoor and outdoor safety<sup>2</sup>.

### **Third-step stadia 1990-1995 (Commerce):**

At the end of Eighties, more fans resulted in more accidents and violent situations<sup>2</sup>; in 1990 there were new safety measures to be adopted in the UK stadia, followed by many nation later<sup>4</sup>. At this step; stadium were larger, safer, and had more permanent spaces for different activities<sup>5</sup>. Consequently, these facilities were more accessible, safe, comfortable, and variable in order to attract more types of fans and spectators. There were more popular facilities in stadia; such as recreational and leisure areas, merchandising, museums, guided tours, boxes and restaurants<sup>9</sup>. That required a new way to manage the facilities economically, which gave the opportunity to introduce business activities inside stadia, followed by being sponsored; stadia became a major commercial facility in cities<sup>9</sup> (**Fig10, 11**).



















### **Fourth-step stadia 1990-2002 (Flexibility):**

The success of stadia as a Commercial facility, led to the appearance of the flexible stadium, the flexibility was in the progression of technologically sophisticated facilities, and constructing mobile structures by concrete & steel<sup>5</sup>. Flexible facilities were capable of meeting many-sided requirements, to be multipurpose facilities, which were capable of being quickly converted to offer the optimum configuration and the maximum comfort whatever the event to take place. For example, mobile roofs to meet different sun angle all over the day, mobile stands to meet the increasing of spectators, and stands were designed to enhance television broadcasting and to positively reach the high lighting and acoustic standards required by digital television<sup>5</sup>. The most remarkable facility were the huge indoor and outdoor hospitality areas<sup>9</sup>, it was a part of the language of new facilities, at that time stadia draw many uses around the year and turn into new urban centralities<sup>9</sup>, sometimes capable of acting as catalysts for the processes aimed at their neighborhoods' redevelopment<sup>2</sup>.

### **Fifth-step stadia since 2002 (Holistic Concept):**

By that date; developing stadia throughout history depended on the requirements of the fans made a sophisticated form of stadiums, each stadium became an exciting architectural challenge<sup>5</sup>, and each design marks a new step in the evolutionary process of stadia, to be at the centre of the evolutionary process of contemporary cities<sup>9</sup>. As lessons learned from history; stadium played as a joint reaction to a double effect linked with the now great popularity of sports events. Stadia with it spaces "indoor & outdoor" became a hosting, equipped, commercial, and flexible facility, so it had a social and recreation dimension for public, fans and the community<sup>9</sup>, which make it an icon centered in the cities (**Fig14**).



Hosting facility	 <p>Wooden stand hosted limited number of fans; extensions were disorderly and non-homogeneous next to the main stand.</p> <p><b>Fig4x:</b> Lansdowne Road 1872, Dublin, Ireland. The oldest international stadium in the world until it was replaced in 2010. It hosted the first official international football match; it was watched by 4,000 spectators<sup>5</sup>.</p>	  <p><b>Fig5xi:</b> Stamford Bridge stadium 1877, London. It was designed by Archibald Leitch. It initially included a 109.75m long stand on the East side. It hosted Chelsea First Professional Football match 1920, it was watched by 5000 spectators (the stand capacity)<sup>5</sup>.</p>	
	  <p><b>Fig6vii:</b> White City stadium 1908, first example has continuous stands linked to each other. It hosted 1966 World Cup, with a seating capacity of 68,000. Then it was demolished in 1985<sup>5</sup>.</p>	  <p>The largest stadiain the world at the time.</p> <p><b>Fig7xiii:</b> Maracana stadium Rio de Janeiro 1950, its elliptical plans could welcome 200,000 spectators. It hosted 1950 World Cup, with record attendance 199,854<sup>5</sup>.</p>	
Equipped facility	  <p><b>Fig8xiv:</b> Munich Olympia stadium (1972), it was characterized by its mega tent structure, that covered the fan zones from outside to inside. It hosted 1974 World Cup, with a seating capacity of 74,000<sup>5</sup>.</p>	  <p><b>Fig9xv:</b> Pyongyang May Day Stadium 1989, North Korea, it accomplished required amenities (greater revenue and higher quality finishes the facilities). It hosted the North Korea national football team (men &amp; women), its capacity of 150,000 seats<sup>5</sup>.</p>	
	Comercial facility	 <p><b>Fig10xvi:</b> Bolton Reebok Stadium 1997, Concept of commercial stadia based on hospitality facilities.</p>	 <p>Stadium has 60 private hospitality boxes for 8-20 guests<sup>xvii</sup>. Boxes are located in the West, South &amp; East Stands and offer a balcony seating.</p>
The popularity among spectators requires more, larger, variable, safer, and permanent spaces, Bolton Reebok Stadium offers some services, such as a hotel and multi purpose rooms. It hosted UEFA Cup 2008, its capacity is 28,723 <sup>5</sup> .			
Flexible facility	 <p>The mobile roof offers 26500 seats by opening it.</p> <p><b>Fig11xviii:</b> Sydney Australia Stadium 1999, it had Flexible stand, it would be converted by pulling down the upper part of the two outdoor stands, reducing the number of seats and providing the whole stadium with a roof structure.</p> <p>The original capacity was 110,000, could be reduced to 83,500<sup>5</sup>.</p>	 <p>Exterior shoot</p> <p><b>Fig12xix:</b> Gelsenkirchen Auf Schalke Arena 2001, it is possible to move the roof and even the pitch, which can be moved outside the facility thus benefiting from natural air and lighting and also could change the facility configuration</p> <p>It hosted opening world cup 2010, its capacity The 52,000<sup>5</sup>.</p>	 <p>Interior shoot</p>
	Holistic facility	 <p>An icon in the city</p>	 <p>Indoor &amp; outdoor hosting facilities</p>
<p><b>Fig13xx:</b> Beijing International Stadium (2008), China. It hosed more than mega event : Summer Olympics 2008 (capacity of 91,000), Nigeria-Argentina, 23 Aug 2008 (capacity of 89,102), Supercoppa Italiana 2009,2011-12 xxi.</p>			
 <p>Flexibility; cladding system could be lighted and colored according to the event.</p>			

### ***FAN ZONES ACCORDING TO FIFA SPECIFICATIONS:***

FIFA (Fédération Internationale de Football Association) is an international association for football competition<sup>xxii</sup>. FIFA is responsible for organizing football's major international tournaments, notably the World Cup, which is global important championship, it has been awarded every four years since the inaugural tournament in 1930, except in 1942 and 1946 when it was not held because of the Second World War<sup>22</sup>.

### **FIFA bidding process:**

FIFA World Cup is the most watched and popular sporting event in the world, many countries are dedicating significant resources to bid for hosting the event. According to FIFA requirements and specifications, not all countries have the capacity or hosting capabilities for an event of this scale<sup>xxiii</sup>. Bidding process is consisted of nine sequential steps<sup>23</sup>. The second step<sup>23</sup>; Countries that express an interest in bidding for the event have to fulfill some conditions, one of them is to provide popular approval equal 25 percent of country population (in 2010; Egypt provided 20million signature) to measure the size of game popularity, the community awareness of sports, and ensure good attendance for the event. The forth step<sup>23</sup>; FIFA committee start to visit the interested countries in bidding for a workshop to evaluate some issues, such as the capability of stadia for hosting the event, the capability of the country or hosting mega event, preparation procedures to host excepted number of fans that may be by million, the state of amenities as a touristic country. FIFA is caring for this process for the continued global development of the game, achieve of wider social goals, and achieve economic benefits<sup>23</sup> (more fans, more sponsors).

### **Fans' importance in the cities during football mega event:**

Nations and cities compete with each other for subsidizing sports by hosting football mega events<sup>xxiv</sup>. This state becomes increasingly popular among governments, corporations, and civic boosters worldwide according to its major economic, developmental, political, and socio-cultural benefits<sup>xxv</sup>. Urban and social studies results support the premise that having loyal fans generally results in higher attendance at games, who occupy a large space of the city center, this calls for strict design process to fulfill fans requirement in terms of interior, architectural and urban design quality<sup>24</sup>. The event itself took place in the favorable context of a good party atmosphere throughout the country; so there is an urbanization of football events inside the city. The nation's experiment of hosting this event shows that sport is a generator of national as well as local economic and social development.

### **Economically**

It has been considered as an industry<sup>xxvi</sup>, which cities can devise regeneration strategies, alike have utilized annual giving and sponsorships to increase revenue streams. However, different Sports administrators, politicians, and originations are beginning to recognize the importance of marketing the stadium experience as more than just the game; they tendered their expertise and frequently claim that stadia and the sports events associated have beneficial effects on the economy<sup>25</sup>. Community decision-makers, who are responsible for the policies are looking for its positive effects such as a long-term increase in the number of visitors; so the establishment of new industries is claimed for the period following the event<sup>3</sup>. Football stadia "in terms of the economy" can cause an effect on the layout of the city as a whole<sup>26</sup>.

### **Socially**

It is considered as a tool for urban communities and its facilities development<sup>25</sup>, that can act as recreation tools for the precious 18-to-34 years old demographic (football fans who form crowd<sup>9</sup>). Some experts thought that the social aspect is so big that people leave at the end of the game without even knowing the score; the fans are caring of the atmosphere of the game more the game itself<sup>xxvii</sup>. The social benefits are generated for the host member association and countries as well before, during, and long after the event<sup>25</sup>.

### **Fan zones: the impact of the city and stadia:**

At a football mega event; fun is not just a congregational element<sup>27</sup>, but also a specific organizing principle by which order was maintained in the fan zones (indoor & outdoor).

### **Site environmental compatibility at cities<sup>xxviii</sup>:**

Environmental compatibility is the prime consideration when selecting a site for a stadium, because it is a challenging, complex, and politically charged subject that must be analyzed carefully. For example, it would be

very upsetting if homes were suddenly confronted with the unexpected number of fans. It is very sensitive issue to develop or build a new stadium next to existing residential areas, and if possible this should be avoided. Also typical environmental issues and concerns are increased vehicular traffic, large numbers of noisy, often aggressive fans and pedestrians, noise from events and lack of activity around the stadium at non-event times. With good analysis, design, and operational controls most of those problems can be mitigated to satisfy neighbors. For example; noise and impact on surrounding areas (**Fig14**) introducing uses into the project that generate activity at non-event times to serve public or tourist (foreigner fans). In addition, locating stadium at extensive landscaping with the planting of bushes, trees and flowerbeds in and around the project, can produce a huge visual benefit for stadium and local community. The greening of a stadium site enhances the perception and the reality that the facility respects the environment and its neighbors.

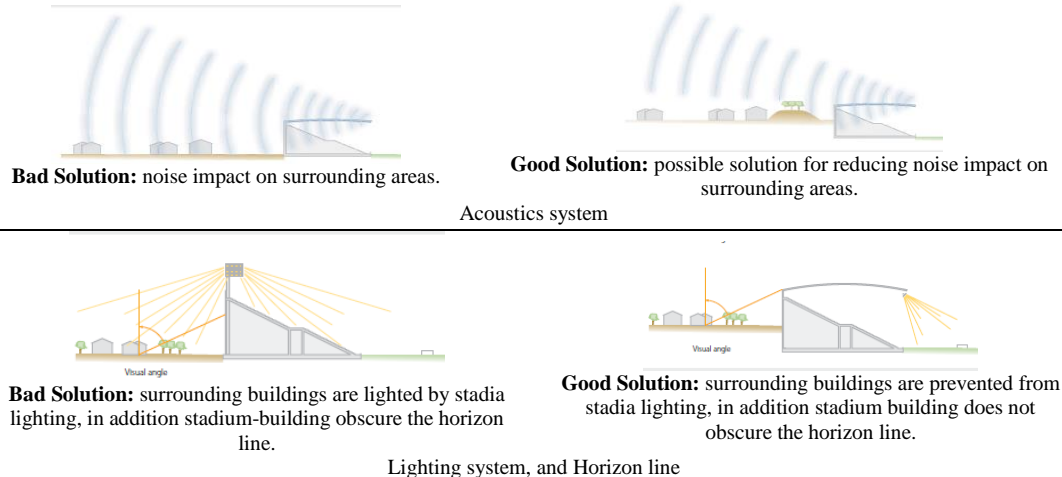


Fig14<sup>28</sup>: Possible solution for reducing undesirable impact on surrounding areas.

### Stadium Location at the City<sup>28</sup>:

Stadia have become a spatial prototype for the temporary and long term changes observable in urban spaces, projecting its functional, economic, social, and regulatory conditions into public spaces. So the industry of stadia contains non game element, which has a very essential effect on stadium success in urban life such as; stadium parking, food service, and recreational elements. All of this effect on public desire to stay and attend games at the stadium, perceived crowding, and fan behavior control.

### Stadium site area<sup>28</sup>:

According to FIFA recommendation and requirements, stadium location should be sufficiently large to provide the following:

First; spacious, safe external public circulation, activity areas, and marshaling space for service vehicles are first priority. While it is normal for the arrival of fans at the stadium to be spread over a sufficiently lengthy period to prevent undue congestion near the turnstiles, the majority of fans will seek to leave the stadium at the same time, resulting in significant space requirements (**Fig16**). Second; reducing the probability that the site may have to be abandoned in the long term, or even in the short term, because of its inability to accommodate some unforeseen development requirement. Third; increasing adequate required areas for on-site parking that will probably remain for the near future. As a site becomes suburban and isolated from public transport, it will have to become larger to accommodate additional parking; in this situation, convenient and multiple access to major roads and motorways is essential (**Fig16**).

### Roads around the site<sup>28</sup>:

In an ideal world, the ultimate location would probably be a large city-center site with good access to public transportation and motorways. A stadium with ambitions to host international events is more attractive to event holders if it is within comfortable reach of hotels and active commercial environments and at least one international airport (**Fig15**).



### *Stadium security indoor and outdoor<sup>28</sup>:*

There is an exceptional condition called “State of emergency”; it is used to unite all forces for a unique chance against unknown risks. It demands to shorten regular proceedings or to mobilize military forces for supporting and corresponding with the spatial creation of exceptional zones (Fig17).

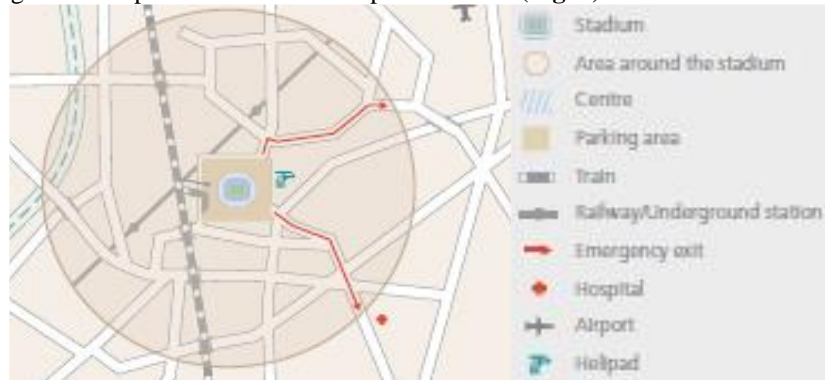


Fig15<sup>28</sup>: Stadium Location at the City. Large site improves chances if being further development in the future

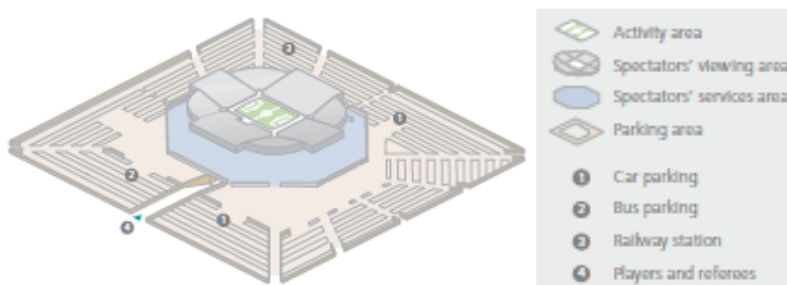


Fig16<sup>28</sup>: Arrivael process at the stadium

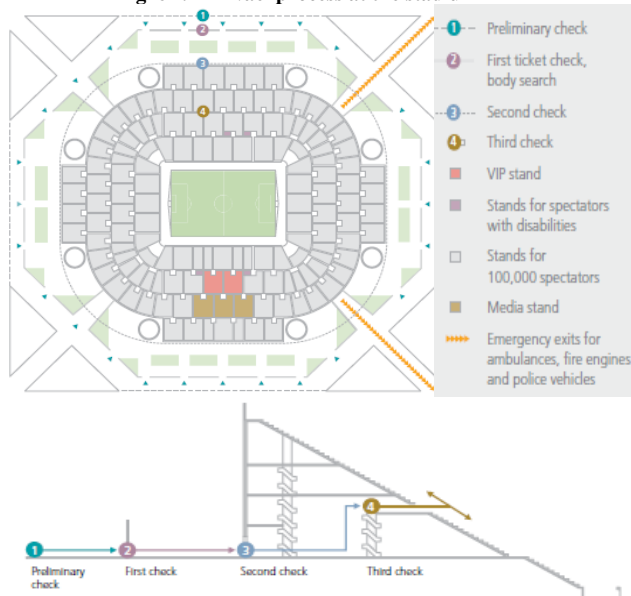


Fig17<sup>28</sup>: Public access and egress & security points. The specifications required many access to be spread in the urban design, in order to help in prefect safety control inside the building

## ANALYZING THE DESIGN OF FAN ZONES' HIERARCHY IN CITY:

Generally, Football stadium's design involves a thought process far beyond just sports<sup>2</sup>; it involves thinking of countless incentives, important limitations, and many motives concerning fans' requirements<sup>xxix</sup>. Those elements are accomplished throughout contents and circulation, whereas fans are moving constantly in a sequence through borderless spaces until they reach their own mini world of the game.

For offering fun and entertainment, fan zones promised to attract thousands of people, mainly those who did not have a ticket for one of the games, but still wanted to become part of the event, they seek for what is

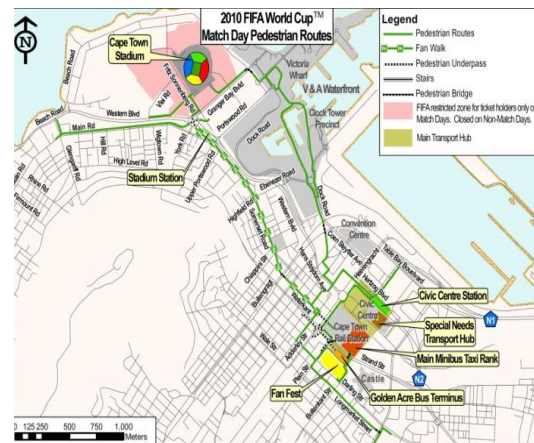
necessary to keep them happy constantly during the event<sup>xxx</sup>. Fan zones are envisioned as a place where the expectations, pleasures, and desires of visitors shall meet, in addition, fan zones must be architecturally well secured. To illustrate the several aspect of fun at fan zones, a wide range of elements are required to animate visitors to actively interact and participate in the vision of a peaceful consumer community, and help to channel Fans' emotions positively "especially ultras", produce nonviolent, friendly relationships between local and stranger fans. Those elements are achieved by establishing macro-architecture zones, which can offer all the type of entertainment. Architecturally; stadium only cannot fulfill the management criteria of professional organizations for accommodating the event<sup>30</sup>; so it is required to engage in the city context in the process. The architectural development of a region make interesting in the of the overall city plan, to achieve 'external' effects that have good relevance to the interior of the stadium<sup>29</sup>. That is such a common aspect that represents urban design dominates the surrounding architectural fabric location and contributes to city development. Good planning for sports arenas has objectives strategy of urban intervention, usually helps to attract tourists for spending time around the stadium facilities<sup>30</sup>, which means that the design process of stadium involves the city urban fabric, surrounding landscape and public space as well as the stadium form and function.

### *Fan zones at cityscape:*

At this level; the process is concerning the approach of stadium, not just the stadium's gateway. This approach may be a journey that starts from fans' arrival at the town till the stadium's location; depending on the location of stadium in the town Fig (18, 19). Fans may be local or foreigner tourists, if they were foreigner tourists, they have no background or experience of the town, and they have a schedule to spent their day on food, shopping, and entertainment while attending games<sup>29</sup>, the architectural design of this journey required a clear directions, services, and excellent views.

### **City identity and stadium as an icon:**

Design process concerns the stadium as one of the majors city host icon<sup>xxxi</sup>, refers to the city identity and culture, and it may be become a multi-functional and a social facility for entertainment events<sup>29</sup>. This level of design concerns in creating a sculpture form from the supper geometries of the roof and bowl, to be a landmark and a prominent destination **Fig (18, 19)**.



**Fig 18xxxii: Cape Town Stadium 2009, South Africa, hosted 2010 World Cup, with capacity of 55.000.**

The map shows the main arrival stations in the city. In addition; pedestrian's routes, underpass and bridges, fans walk and important facility, FIFA restrict zone for tickets on Match Day, and finally the FIFA Fan Fest Location.



**Fig 19<sup>32</sup>: Cape Town Stadium's approach in the city.**

Also in the age of globalization, the stadium considered as a nation building express the evolutionary of contemporary process and one of the city major key element<sup>9</sup>. Cities adopt this ideology to be as international global architecture recognitions, and it helps in the city development throughout illuminate their surroundings and contributes to the appreciation<sup>3</sup> **Fig (20, 21)**. Examples of Soccer City Stadium and South Africa and Moses Mabhida Stadium 2009 **Fig (20, 21)** as iconic structures reveal certain common characteristics; they are usually within walking distance of the city center, beside attractive point such as a body of water or central park, have a unique and innovative architecture, and functional planning of surrounding area.

### *Stadium's approach in the city:*

The design focuses on dealing with different groups in the city<sup>3</sup>, heir-changing forms in spatial organization, the positive and negative impacts on the urban environment, and the pressures that exist to force fans especially the foreigner to deal with new locations<sup>9</sup>. Those emphases on dealing with site condition through architectural design **Fig (22)**.

### *Service and entertainment points:*

According to the attachment of stadia to the city centers, the success or failure of fans' journey to stadium depend on the amenities of city facilities, such as cafes, restaurants, shops,...etc. **Fig (18)**. That imposes two main points in designing and choosing stadium's location; first the impact of the stadium and city in a larger context. Second security standards and control strategies; open spaces and directions help to easy and quick controlling aggressiveness or destructive behavior by fans (Social studies suggest that the host communities register sharp increase in assaults vandalism, and arrests for disorderly conducts. Also suggest recreation design and good services facilities reduce the incidence of violence).



**Fig 20xxxiii: Soccer City, South Africa.**

It hosted 2010 World Cup. It was designed to have the appearance of an African pot; with shining mosaic cladding colors, simulating fire underneath the pot.



**Fig 21xxxiv: Moses Mabhida Stadium 2009, South Africa, built for 2010 World Cup.**

It has grand arch which imposes its unmistakable silhouette into Durban's urban skyline.



**Fig22xxxv: Allianz Arena 2005, Munich, Germany, hosted World Cup 2006 with capacity of 66.000.**

The site shows great weakness, which is situated it on the urban periphery; it is isolated icon in the city. The concept of coloring helps to attract visitors and fans from afar on the approach to the city, the colors refers to its resident teams.



### **Fan zones in the Urban Design:**

#### *Spaces and contents at stadium's arena:*

Stadia have an urban role<sup>2</sup>, it is linked with the growth of great popularity of sport events, the urban area around the football stadia basically is designed considering the flow rates of crowd evacuation and egress routes<sup>9</sup>. So the designed is based on smooth transition of spaces from outside to inside or vice versa, those spaces represented in entertaining plazas, pedestrian malls, concourse points, some services facilities (restaurants, bar), sidewalks and parking lots. Its activities considered as entertainment open air for pedestrian, in addition; those activities help in affording spectators to direct access to the stadium (**Fig 23, 24**). So those arenas and its urban design act as a mix of commercials, retails, dining and entertainments for welcoming and hosting fans, beside being an existing venues could to be integrated with the urban fabric of the city center or nearby residential spaces. The stadium's urban interaction with its surroundings imposes a literature of urban design that suggests architecture and urban design are experiencing a rise in significance in a globalizing activity and economy as cities increasingly compete for community and tourists<sup>30</sup>. Focusing on the current international trend of stadium architecture<sup>29</sup>, it uses iconic elements and provides typically large public subsidies for stadium construction in order to maximize public benefits. The urban design contains gardens, landscape elements, important equipment, and devices such as alarm and security systems, and audio system for immediately announcement or news and for live music to enhance the atmosphere of cheering games<sup>9</sup>. This trend attempts not to obscure, dominate their surroundings, or upset the urban equilibrium, but seeks to fit in the existing structures of the city and subtly enhance them.

#### *FIFA-Fan fests<sup>xxxvi</sup>:*

FIFA-Fan fest has been created in the 2006 German host cities to offer a public screening of the matches; it is a collective emotional experience resembling the stadium atmosphere. Sometimes it hosts fans more than that is carried on stadia due to the low price ticket; it considered as a kind of provisional stadia, they are installed in the cities or stadium outdoor public spaces (**Fig 25, 26**). They contained center screens instead of a pitch, and gradually adopting the conditions of actual stadium buildings, in terms of economic exploitation (sponsors' advertising, commercialization and hierarchisation of consumption spaces...etc.), as well as in terms of control patterns (perimeter fences, access control, video surveillance, deployment of private security companies...etc.) By facing the ongoing accumulation of urban mass events, the design of its urban required same criteria of stadium's arena.





Twenty-five percent of the stadium is air conditioned<sup>39</sup>; this includes the terrace, salons, clothes changing rooms, and media center. An outside stand is available for disabled people. Media center hosts 300 journalists. An information transmission network and a network of fire alarms are linked to a central control room found at the highest point of the stadium. The audio and surveillance cameras are accessed at the control room found in the basement. Two main media screens in northern and southern side, and three sub ones under the shade (**Fig 31**). An advanced lighting system for ceremonies and night matches, the ground has four large floodlights (**Fig 32**). Communication services; 500 local phone lines, 1500 international one. Parking with capacity of 5,000 cars, 200 buses, and a helicopter-landing pad with capacity of four aircraft. Finally 6 km internal road network.

### **Commercial facility:**

For the common fans; there are 32 restaurants and external shops<sup>39</sup>. For VIP; there is 5-stars hotel (Radisson Blu Hotel)<sup>xli</sup>.

### **Flexible Facility:**

The stadium design has fixed elements; there is no chance for mobility or conversion according to size or type of events (**Fig 27, 30, 33**).

### **Holistic facility:**

According to previous points; it's hard to consider Borg El-Arab Stadium as a holistic facility, it's missing sophisticated form, 65 percent of the stands are exposed to direct sun light, which is uncomfortable, "stadiums' stands since 1950's were totally roofed (2-2-2)". Comparing Borg El-Arab stadium (**Fig 27:41**) to historical development since 1872 till 2008 (**Fig 4:13**), it misses social and recreation dimensions for fans, public and the community, also there is huge lack of comfort element due to the shortage of hosting, equipped, commercial, and flexible facility.

### ***Participating 2010 world cup bidding***

#### **Bidding Process:**

In 2004, the bidding process for hosting the 2010 World Cup was open only to African nations; as part of a short-lived policy to rotate the event among football confederations. Five African nations placed bids to host the 2010 World Cup: Egypt, Morocco, South Africa and a joint bid from Libya and Tunisia. Following the decision of the FIFA Executive Committee not to allow co-hosted tournaments, Tunisia withdrew from the bidding process, the committee also decided not to consider Libya's solo bid as it no longer met all the stipulations laid down in the official List of Requirements. FIFA selected South Africa over Egypt and Morocco to host the 2010 FIFA World Cup to become the first African nation that hosted the finals (the championship took place from 11 June to 11 July 2010). The winning bid was announced by FIFA at a media conference on 15 May 2004 in Zürich; in the first round of voting South Africa received 14 votes, Morocco received 10 votes and Egypt zero vote. The voting was according to a number of requirements concerning hosting stadiums; such as capacity, quality of venues, and serving facilities. FIFA expressed their confidence in South Africa for planning, preparing, organizing, and serving the event well<sup>38</sup>.

#### **Inspection Group's report about the Borg El-Arab Stadium<sup>xlii</sup>:**

The Inspection Group visited Egypt "from 23 to 30 January 2004" for evaluation. FIFA Vice-President and head of the inspection delegation, spoke very highly about stadium indoor contents "It is a fantastic stadium. It is one of the best in the world" quoted by him <sup>38</sup> (**Fig 33**). FIFA President expressed his delight about the stadium, especially the high-tech visuals and lights show. Also The Inspection Group hadn't any concern about internal security for the safety of the FIFA family or the spectators. But there were some remarks about the general situation such as, the organized schedule of visiting; it was not always possible to stay on time due to the roads, transportation and traffic conditions. There were problems in the open spaces for hospitality areas. In brief; the committee was concerned about running 2010 FIFA World Cup properly. They asked in media conference not to consider their remarks as criticism: "we know you can successfully host 2006 African Nations Cup in Egypt, but what's good for the African Nations Cup might not be necessarily good for FIFA" followed by a comment: "Egypt should take the opportunity of this advantage to improve its facilities because you do already have the perfect infrastructure."

#### ***Analysing Borg El-Arab Stadium Fan Zones' Hierarchy in the City:***

The stadium is located in the Alexandria Governorate \*, outside Alexandria city and near to Borg El-Arab city, next to Regional Road Network (**Fig 37, 38**). This network leads to four directions: Alexandria \* (~50km), Cairo ♦ (~202.7km), Northern Coast ♥ (~8.4km), Borg El-Arab City ▲ (~18.5km).



## First level of Design: Cityscape Scale:

According to the stadium location; its main approach is the journey from Alexandria City; Cairo is too far, Northern Coast equipped only in the summer, Borg El-Arab City is new residential with small population “ $\approx 108,000$  inhabitants<sup>xliii</sup>.”

## Stadium as an Icon refers to City Identity:

The eighteen concrete lotus flower-shaped columns are influenced by state's culture, those columns cover 35 percent of the form, and there is no sculpture form or richness in design (Fig 34). The design of the gate is influenced by Alexandria Stadium that was built 1929; it was globally a remarkable building (Fig 35, 36). Thus; in age of globalization, Borg El- Arab Stadium as a nation building cannot compete other stadia at international global architecture recognitions level (Fig 13, 19:23). It is also hard to attract foreigner fans, visitors, and tourists throughout such a distant (Fig 37: 41).

## Stadium's approach from Alexandria City:

Stadium's approach has two phases (Fig 37); the first is the journey inside the city, and the second is outside it that lasts for more than 44 km, passing in the desert way through two main roads; the Alexandria- Cairo Road and Al-kafour Road. Therefore, most of the approach journey is passing through desert, industrial areas, residential slums, and Bedouin villages (Fig 38-39). There is an avious lake of attraction points, the stadium is deserted at non game time (Fig 27, 37), therefore it doesn't considered as city sightseeing that could be visited throughout the year.

## Service and Entertainment Points:

Although the richness of Alexandria City with culture, commercial, entertaining, and luxury facilities; fans enjoy those facilities only when they are in the city. Once they are starting the journey to the stadium, they are missing any amenities. Similarly; security standards and control strategies record high rates inside the city unlike outside it.



Fig 27<sup>div</sup>: Borg El-Arab Stadium.



Fig 28<sup>40</sup>: Stands have two levels for 80,000 spectators



Fig 29<sup>39</sup>: VIP cabin (22 seats).



Fig30<sup>39</sup>: Metal shade covers 35 percent of the total stadium seating capacity.



Fig 31<sup>40</sup>: Media screen at the northern side.



Fig 32<sup>44</sup>: Light system and floodlight at the stadium



Fig 33<sup>39</sup>: entrance arcoording to FIFA standers, 28 point at levels for inner safety control.



Fig 34<sup>40</sup>: Lotus flower-shaped columns are inspired by Egyptian Culture.



Fig 35<sup>39</sup>: Borg EL-Arab stadium Gate, Egyptian Army design 2007.



Fig 36<sup>40</sup>: Alexandria Stadium Gate 1929, Greek architect Anglo Polanaka.

## Second level: Urban design:

### Spaces and Contents at Surrounding Stadium Arena:

The site contains some elements (Fig 41): (1) A 5stars Hotel (Radisson Blu Hotel), which offers some services such as relaxing, sporting facilities, beside some businessmen services like meeting rooms and conference preparation<sup>41</sup>, those facilities could serve only VIP fans according to its stander of specialization and economy. (2) Some shops by the Al-Kafour Road, which are deserted around the year according to its location in the desert. (3) Parking lots, (4) Two training fields, (5) Helicopter-landing, (6) 6km internal road network. The urban design did not concern entertain plazas, pedestrian malls inside the site, concourse points, sidewalks, or any services facilities (restaurants, bar, cafe). That means there are no activities to be as entertainment open air for pedestrian while directing fans in or out the stadium.

### FIFA-Fan fests:

At the site (**Fig 41**); there is no ability to hold FIFA-Fan fests according to site's elements (5-3-2 A) and size, but it could be at any of Alexandria City urban spaces.





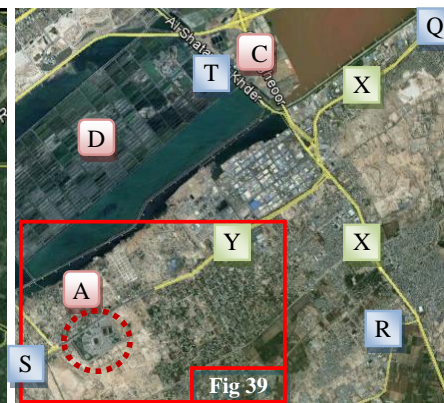
**Fig 37<sup>1</sup>:** The stadium is located about 44.3 km. outside Alexandria City



**Fig 39<sup>46</sup>:** Stadium's approach is passing through industrial area and residential slums, there is no touristic or luxury facilities. The journey from the Alexandria city center has a lake of nice views.



**Fig 40<sup>46</sup>:** The stadium location is surrounded by desert and Bedouin village. The site is abandoned at non game time, because of lake of amenities.



**Fig 38<sup>46</sup>:** There is a Regional Road Network leading to the site. The stadium has strategic position between 4 Region; Alexandria (50km), Cairo (202km), Borg El-Arab (18.5km), Northern Coast (8.4km).

#### Key

- A: Stadium location
- B: Alexandria city center.
- C: City Entrance.
- D: Mariout Lake.
- E: Industrial Area.
- F: Residential slums.
- G: Bedouin village
- H: King Mriout.
- I: Desert.
- J: Helicopter-landing.
- K: Training field.
- L: 5 Satrs Hotel.
- M: Shops.
- P: Parking
- Q: To Alexandria.
- R: To Cairo.
- S: To Borg El-Arab City.
- T: To Northern Coast
- X: Alexandria- Cairo Road.
- Y: Al-Kafour Road.



**Fig 41<sup>46</sup>:** Yellow line: 3.5m high fence has 10gates. Red line: 1.2m high fence has 17gates.

<sup>1</sup> Google Earth, after editing.

## RESULTS AND DISCUSSIONS

### *Results*

#### **According to FIFA specification:**

##### **Site environmental compatibility at Alexandria:**

Although the Stadium is avoided being next to existing residential areas which is good, it shows a big lack of activity around the stadium at non-event times. According to the form and uncovered stands; Acoustics system is impacting on surrounding areas, but surrounding areas are prevented from stadium lighting, in addition stadium building does not obscure the horizon line (**Fig14, 27, 32**).

##### **Stadium location at Alexandria:**

Stadium hasn't non-game element at the site, the site design is not fixable for temporary and long term changes in urban spaces, it is hard to say that is the stadium interact with urban life successfully.

#### *Stadium site area:*

The site is not large enough to contain hosting facilities (**Fig15, 41**), there is no spacious, safe external public circulation, activity areas, and marshaling space. It would be a problem when fans leave game at the same time, because there is no entrainment facilities channel fans smoothly.

#### *Roads around the site:*

The site is deserted and far away from the city life. It is isolated from public transportation; there is just one main road "Al-Kafour Road". At international events; it is hard to attract event holders or sponsors because of missing of active commercial environments.

#### **According to architectural design hierarchy in the city:**

- Borg El-Arab stadium is not characterized by unique or innovative architecture, neither functional planning of surrounding area. Therefore, the stadium cannot consider as international icon that is keeping up with globalization issues, or to attract foreigner fans, visitors, and tourists.
- According to urban situation; there is no heir-changing forms in spatial organization; the fans suddenly get out the city and travel for more than 45 min in the desert to get in the stadium, so there is no impact on the urban environmental life.
- The stadium's arena does not interact with its surroundings, there is no significance concept or features characterized it at the global level, it doesn't possess a strong metaphoric character, symbolically elements or formal vocabulary which could facilitate its recognition and identification. That has bad influence economically, beside a negative effect at touristic level, and reducing its moral value at the national and international level for fans.
- The site's lack of hosting, commercial, attraction and recreation facilities is considered as a big failure according to globalization standards. The welcoming and hosting elements for fans are missing such as retails, dining and entertainments ones.

## RECOMANDITIONS FOR UPGRADING PROCESS

The results refer an urgent need to upgrade and redesign the fan zones of Borg El-Arab Stadium. The form need to be remodeled to be aesthetically exciting one attracting fans and tourists from such a distance, and to keep pace with its peers at the global level. The approach from Alexandria city has to be redesigned at urban planning level, it has to be considered in the future Strategic Plan and to part of region development, the main target is to make interesting and attractive point along with the circulation of fans overall city plan, which mean, it has to engage the city context in the developing process in order to fulfill the management criteria of professional organizations for accommodating the event at Borg El Arab Stadium. The stadium has to embed into the existing urban fabric, and reviving the urban context around the stadium, corresponds with the spatial creation of exceptional zones, in order to achieve 'external' effects for the region that have a relevance to interior of the stadium. The site has to be enlarged to contain welcoming hosting, commercial, attraction and recreation facilities, to enhance culture, social, economic benefits, and functionally; to channel fans in and out of the stadium enhance security.

## CONCLUSION

Architectural design process of football stadium involves the city urban fabric, the first priority in the design is to create a centerpiece in the city and make a civic character for fans activities, concerning in the first class capturing fan's sense, using city center landscape and public spaces. The hierarchy of fan zones is handled in design process through levels, according to the scale and the value of every space. Good design of sports arenas has strategic objectives for urban intervention, usually helps to attract tourists for spending time around the stadium facilities. The process depends on stimulating architectural imagination of sight seen along the journey to the stadium. Stadium is a kind of buildings that uses the type of surroundings to generate iconic-architecture for orienting its approach, at the same time brings with it a revolution in design vocabulary as a timeless elegance, which over generations fits into the urban. This is such a common aspect that represents urban design dominates the surrounding architectural fabric location and contributes to city development.

Borg El Arab Stadium as an international one has many privileges such as its capacity and some other facilities, but the lack of services facilities in the fans zones starting from the city center till the stadium site is considered as serious defect that hinder the success of holding any mega event. For planning successful mega event in Borg El Arab Stadium, it is recommended to redesign the service facilities from the city center to the stadium location; by incorporating many functional aspects of design and developing variables facilities along with fans circulation, it has to be manage as comprehensive concept in the future Strategic Plan.

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