URABN LEGIBILITY AND SHAPING THE IMAGE OF DOHA:
Visual Analysis of the Environmental Graphics of the 15th. Asian Games

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Abstract

This paper explores urban legibility and the associated elements that contribute to the image of the city. It investigates the graphics of the 15th. Asian Games that took place in Doha, December 2006, while placing emphasis on environmental graphics as a vehicle for shaping our indoor and outdoor visual environment. Utilizing the concept of environmental quality and its underlying notion of legibility, the paper analytically describes the environmental graphics of the games event and preliminarily measures Doha residents' reactions to graphics-based urban settings within the city. The results of performing these procedures reveal that environmental graphics can contribute in shaping the memory of city images and can help establish associations between people past, present and future experience of urban scenes. such results call for including environmental graphics in the work of architects and urban designers toward shaping better memorable images of cities.

Keywords

Environmental quality, urban legibility, environmental graphics, 15th Asian Games, Qatar.

Introduction

The initial questions that need to be considered are: What is environmental graphic design? What is the relationship between graphic design and environmental Quality? How environmental graphics can contribute to the urban legibility within the city of Doha. While answering these questions is woven into various sections of this paper, this introduction addresses the basic concepts which pertain to environmental graphic design and urban legibility while highlighting basic information related to the Asian Games.

On Environmental Graphic Design

According to David B. Gibson environmental graphic design (EGD) is a graphic communication in the built environment, also known as signage. (Heller and Fernandes, 2006, p.154). It has appeared as a field through the activities of numerous institutions and associations, including the International Sign Association (ISA) in the United States and the Environmental Design Services Association (EDSA). These institutions are most interested in projects related to EGD as well as establishing the designing the signage

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system in cities. EGD is the type of design that interacts with visual factors that are related to the image of the built environment, including advertisements, road signs, shop signs, and other signs that indicate different activities carried out by humans (Web site. Semiotics, 1999).

EGD was also defined as planning, designing, and specifying of graphic elements in the built and natural environments. These elements are used to communicate specific information in the environment (for example, they identify, inform, direct, interpret, orient, regulate, or decorate). Environmental graphic design is multidimensional, utilizing materials that withstand the elements as well as time. (Heller and Fernandes, 2006, p.156). EGD can be seen as the logical concomitant result of marrying architecture and graphic design- signage, exhibit design, place-making, and wayfinding design.

EGD has become a sophisticated discipline in recent years and thus environmental graphic designers are involved in a wide range of design activities, from billboards to wayfinding to interactive kiosks. In essence, virtually every aspect of design that deals with an outside or inside physical environment is a fair game for environmental designers. Environmental graphic designers are routinely included in design and planning teams that must solve problems endemic to defining and marking cultural, commercial, and residential spaces while fostering and enhancing the image of the city.

On Urban Legibility
According to Nenci et al (2003), two major conceptualizations of legibility can be distinguished, the first one, based on the original approach proposed by K. Lynch (1960),

considers legibility as a physical and spatial characteristic of the environment. Several pieces of research have demonstrated how cognitive maps are more "structurally" coherent when the perception of the spatial structure of the city is relatively easy. The complexity of urban structure, the level of differentiation between urban elements and their visual aspects are seen as the main variables influencing legibility in terms of spatial representations. Thus, according to this first conceptualization of legibility, researchers' attention should not be focused on people-environment relationships, but on the intrinsic characteristics of the environment (the "personality of the environment paradigm"). Architectural and urban legibility is commonly considered to be the degree to which characteristics of the environment can help people construct a mental representation (cognitive map) of the spatial relations of the built environment; it is seen as a basic component of the daily urban experience (O'Neill, 1991).

A more functional approach toward urban legibility emphasizes its behavioral dimensions more directly by stressing the concept of orientation and wayfinding allowed by the built environment (Weisman, 1981). The process of knowledge of the city in all of its components or "sub-places" (such as home, residential neighborhood, historical neighborhoods, and periphery) can also be seen as the result of a psychological process of social construction. This psychological construction is basically an inter-subjective and symbolic one, and it can be shared by different historically and culturally specific contexts and by different social groups. It relies on both perception-based and meaning-based salience (Nenci et al, 2003).

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Along the same line of the preceding conceptualizations, Canter (1969, 1977, 1997) argued that the environment should be considered not only in terms of its intrinsic characteristics but also in terms of the meanings that are shaped in people-environment relationships. These relationships are seen as strongly influencing people's evaluations of physical-spatial elements. Thus, legibility might be conceptualized as emphasizing not only the spatial and functional aspects of the environment, but also the influence of socially shared meanings on spatial knowledge.

Within the preceding approach, it may be possible to understand legibility of an urban system by studying how its inhabitants identify it. According to Graumann and Kruse (1991), in order to identify the basic components of an urban experience, a twofold perspective should be adopted that relates to the interaction between "identity of" and "identification with" the city. In their words, this means *"… to understand the city from the cognition, feelings, motives, intentions and activities of its inhabitants, but, equally, to understand the city-dweller from the constraints and the facilities afforded in the social and physical structure of the urban environment"* (Graumann & Kruse, 1991, p. 172).

On the Asian Games

The Asian Games is the second largest sporting event in the world, after the Olympic Games itself. The concept of the Asian Games was formalized in New Delhi. Following an agreement in 1949, the Asian Track and Field Championship was established. After the second meeting, the participating countries agreed to adopt the Asian Games Charter (which was based on the Olympic Charter), leading to the establishment of the Asian Games Federation. The First Asian Games took place in New Delhi in 1951 and welcomed 11 countries playing in just 6 sports. In the 15th Asian games of Doha and after over half a century, the Games included 45 countries and regions who participated in 39 competitive sports totaling 423 events. (http://www.doha-2006.com/gis/menuroot/news/articlebbbf.html?id=817).

Methodology:
Utilizing the Concept of Environmental Quality in Analyzing Environmental Graphics

In the early 1990s David Canter advocated the idea of approaching the field of environmental design through one comprehensive model that guides our understandings, assessments, and actions in the environment (Canter, 1991). The result of this conceptualization was what Canter called "a systemic model of place experience." Other similar models were proposed by Vischer (1989) for conceptualizing different types of environments. In parallel, Amos Rapoport introduced an evaluation tool to analyze and measure the quality of the environment (Rapoport, 1989). His integrative model utilized the concept of environmental quality as an evaluation tool to measure the quality and effectiveness of the environment. According to Rapoport (1988), the quality of the environment can be classified and grouped in intellectual taxonomies according to their levels of meaning into:

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• *The lower leve*l: Instrumental level of the qualities of the environment.

• *The middle lev*el: Latent level of the meanings, which represents value function qualities of the environment.

• *The higher* level: Symbolic qualities of cosmologies, world views, and religion

Each of these preceding levels is composed of sub-qualities that define the environment and are ranked and perceived as "negative" or "positive" attributes of the environment by the users of the space depending on whether it facilitates or inhibits the user behavior, as well as how well it satisfies their needs, wants, preferences, and values. This concept was used by a number of scholars to assess wide variety of environments, by Elzeyadi (2003) to evaluate office environments, and by khatab (1993) to evaluate government housing.

In this study, the concept of environmental quality is seen as—in addition to the different levels of taxonomies, it encompasses the notion urban legibility. Therefore, the concept of environmental quality and its underlying notion of urban legibility are utilized to conduct the visual analysis of the environmental graphics of the 15th Asian Games that took place in Doha, Qatar, 2006. The approach taken to establish a link between these concepts and the visual analysis differs based on the issues involved. In essence, the approach to the visual analysis based on environmental quality is dependent in the context of this study on analytical interpretive description, while that which is utilized to investigate urban legibility is empirical in nature and is based on an attempt to understand residents' reactions to different urban scenes.

The concept of the environmental quality is utilized as a tool to understand and analyze street and city environment. The study is undertaken to investigate how visual elements within the street signs and the overall environmental graphics in different settings and urban scenes contribute to the overall visual quality of the city. Apparently, the discussion outlined in the introductory section of this paper reveals that legibility simply means that an environment is not confusing, an environment that is easy to read; that is appropriate for directing people to know their destinations and their whereabouts (Anotniades, 1993, Salama, 1998). A series of "before and after" images were displayed to a random sample of residents with an aim to investigate the way in which places and buildings are identified in order to highlight the significance of memory of urban scenes and settings.

Analysis of the Environmental Graphics of Doha's 15th Asian Games

A. The Lower Level: The Instrumental Level

The lower or instrumental level represents everyday qualities that enable people to perform their tasks, behave, and act appropriately and predictably in public spaces and urban settings. Such a level includes, among other elements, lighting and views, visual noise, spaciousness, location and setting.

Variety of Types: Through a range of integrated solutions that captivate, excite, and interact with spectators, pedestrians and users, a wide variety of graphics were introduced. Examples applied to Doha city before and during the games include building wraps that are 25 stories high, sculptures, giant panoramic

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billboards, large-scale building projections, banner boulevards and even stadiums were dressed in color and light.

The Logo and Mascot: This is represented by an athlete in motion and was the inspiration for the logo of the games, a sportsperson facing up to the challenges and obstacles in a fearless manner. The colors used in the logo are especially relevant to the state of Qatar: yellow for the crescent-shaped sand dunes of the desert, blue for the calm sea of the Gulf and red for the sun and warm spirit of Asia (Figure 1-a).

Orry was selected as the official mascot of the games. It has a special message for the public, and those who came to visit the city during the games event. These social animals graze on the sparse vegetation offered by the dry local environment of Qatar, using their large horns to defend themselves. A characteristic of the animal is its ability to detect rainfall from great distances. As a result, Oryx travel swiftly and have been known to cover up to 88km in 18 hours. Perfectly adapted to desert conditions, the hooves of the Arabian Oryx are designed to give better grip in sand while its coat is whiter to reflect heat (Figure 1-b). It is noted that the selection of the Orry as a mascot was successful and left a stamped impression in the minds of many people living in the city, especially children. (http://www.doha-2006.com/gis/menuroot/news/articlebbbf.html?id=817) and (www.thelookcompany.com).

Billboards: 13 giant billboards were installed throughout the city. Many of them have pictures of the athletes in action, and others reflecting the sports symbolized by different shapes of pictographs. (Figure 1-c).

Banners: These were introduced via different mechanisms that included:

• 11,000 street banners decorating the city streets as well as celebrating venues, cultural, torch relay, volunteers and sponsorship programs.

• The Doha 2006 torch relay lights up Khalifa Street with 104 banners, and an additional 500 banners lining the streets of participating cities across Asia. Khalifa street is one of the major streets leading to Khalifa Stadium where the opening and closing ceremonies took place.

• The old Souq (traditional market) was infused with the spirit of the Games in the form of custom street banners

• The volunteers program heralds the volunteers with 146 banners along Salwa Road, one of the important spines of the city with intensive commercial and business activities (Figure 1-d).

Figure 1-a: the Official Logo of the Doha's 15th. Asian Games. (Source: (http://www.doha-2006.com/gis/menuroot/news/articlebbbf.html?id=817)

Figure 1-b: The Orry, the Official Mascot of the Games.(Source: A. Hasanin).

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Figure 1-c: Billboards installed throughout Doha city, they were distributed in key locations, intersections, and major urban spines. (Source: A. Salama).

Figure 1-d: Street banners installed throughout the city of Doha counting 11.000 banners on lighting posts in key urban spines and destinations. (Source: A. Hasanin).

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Sculptures: A considerable number of sculptures were installed in specific urban settings and cultural sites to showcase signature in the form of cultural drum sculptures 3.5 meters high and 3 meters wide, as well as some sculptures of Orry in different public spaces with different sizes (Figure 1-e).

Building and Street Wraps: In the run up to the 15th Asian Games Doha 2006, the city of Doha has been transformed with huge outdoor displays promoting the Games and even wrapping side walks and the entire skyscrapers in pictures of athletes in action. 32 building wraps on prominent buildings such as Qatar National Olympic Committee (QNOC), Ministry of Commerce, Ramada Hotel, Rydges Hotel, Barzan Tower, Ministry of Planning, Q-Post and Athletes Village (Figure 1-f). Doing so was a difficult task as expert climbers were used to measure buildings, so that each banner or wrap could be tailored to meet the exact dimensions of each building façade or installation.

Decorated Water Towers: Decorated water towers added to the overall look of the city during the games event, also decoration of - 2 gateways, 24 wind tower spectaculars, and 3 city flyovers was undertaken (Figure 1-g).

Pictograms: A family of 46 pictograms has been developed for the games to illustrate each sport in a simple, iconic way. Developed to reflect the 'Old and New' look of the Games, with smooth and rough edges, they were used primarily for information graphics and directional signage. As well, they were used within different applications to create a bolder graphic or color statements.

The Torch Design: The Torch design for the games was designed in a modest, elegant manner. Inspiration for the Torch was drawn from the curvaceous horns of the Arabian Oryx, the endangered national animal which also inspired Orry, the official Games mascot and the colors of the Qatari flag. The Torch was carried across land, sea and air and travelled by trains, bicycles, camels, horses, trams, boats and ferries during the games event.

Branding: In order to stamp visual impression in the minds of Doha residents and the games attendees, a series of products was created in harmony with all other elements introduced at the urban level including tissue boxes, phone and internet cards. Awareness of Doha 2006 brand and merchandising protection received a boost after two counterfeit label cases on travel bags and tissues boxes were discovered.

Figure 1-e: Sculptures were installed three months before the opening of the games at important entry points including the waterfront main plaza and the main campus gate of Qatar University. (Source: A. Hasanin).

Figure 1-f: Outdoor displays promoting the games and building and side walk wraps, all in the form of pictures of athletes in action. (Source: A. Salama).

Figure 1-g: Decorated water towers in different colors acted as landmarks that define different urban districts within the city of Doha. (Source: A. Hasanin).

B. The Middle Level: The Latent Level

The middle or latent level represents the subjective qualities of an environment that communicate the identity and the personalization of individuals and groups. In general terms, it suggests appropriate behavior, and provides subjective value to users. These include qualities such as personal space, crowding, personal control, privacy, safety and security. However, what is relevant to the study

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of environmental graphics in the context of the Asian Games includes aspects that pertain to wayfinding, signscape, and the overall environmental aesthetics.

Wayfinding and Signage: In any part of a city or a community where significant number of visitors or newcomers may be found, the streets should provide the kind of information that they need to navigate safely and effectively in a strange milieu. This situation was conceived as most likely to be the case in Doha during that event. Visitors and teem members moving along streets sidewalks appear to be rather than oblivious to their surroundings. That is why newcomers and visitors are easily spotted in such event, they move in an uncertain manner, visually exploring their surroundings. In a new environment people tend to move in an exploratory mode, proceeding slowly and scanning the environment carefully. Even residents, who appear to be moving in a trance, will quickly respond to interesting information and events. In spite of the movement and confusion, the streets and the sidewalks can be a good place for certain kinds of communication. Consciously, the designers of the games event were careful in addressing these concerns.

Signs and street graphics in general are part of environmental communication; they offer an excellent opportunity for a community to communicate with its citizens. Community programs and future events of general interest can be publicized effectively in this manner. However, they cannot be seen independently of the urban scene, or spatial organization and the circulation system within buildings. In this context a brief review of the key wayfinding aspects in architectural and urban design

and its relation to graphic support systems is important.

n the literature of environmental psychology, the notion of wayfinding was preceded by 'spatial orientation' which referred to a person's mental ability to imagine or represent a physical setting and to situate him or herself spatially within that representation. The psychological concept for this mental representation is the 'cognitive map.' Wayfinding views a cognitive map as a source of information to be combined or partially replaced by other types of information necessary for making and executing decisions. On the other hand, signage is an important environmental information system helping wayfinding (Passini, 1984 &1999). Environmental graphics and signs work as a visually accessible land marks or reference points that are crucial for wayfinding purposes, and they tend to increase its imageability when located at decision points or/and in the line of vision along major pathways (Kaplan &Kaplan, 1983). This imageability means that quality in a physical object is what gives it a high probability of evoking a strong image in any given observer (Lynch, 1960).

Landmarks are significant in one's formation of a cognitive map of both physical environments and electronic information spaces. Landmarks are defined in physical space as having key characteristics that make them recognizable and memorable in the environment. It is argued that landmarks can be classified in terms of visual, cognitive and structural dimensions, which has implications for how environments can be designed or built in such a way that landmarks will emerge appropriately for unique situations. Signscape, on the other hand could

be defined as the presentation of the graphics within the built environment, as Nassar describe the signage as a use of signs for the purpose of conveying information to the people passing by, whether pedestrian or motorists (Nasar, 1988). The signscape is an aggregation of symbols and letters as they appear on signs, billboards, storefronts, marquees, canopies, and all other visual media located on buildings (Sanoff, 1991).

In order to achieve the goal of the signs and environmental graphics, the designer need to understand and define when and where the information is needed. Generally, this takes place when the user has to make a decision while reaching his/her destination. It is noted in this respect that some people need little information to start with but develop their wayfinding solution as they confront new situations and new information. Information also needed when people make decisions at specific points along their way to destination. The location of the sign unit along a path is determined by the corresponding decision point such as building entrances and roundabouts

Translating the preceding understandings on the environmental graphics of Doha's Asian Games, wayfinding can be regarded as a tool the influenced user behavior during the event. As well almost all types of graphics installed on buildings and accommodated in different public spaces throughout the city worked as an efficient landmark system. Notably, the following aspects of the games graphics can be identified:

• Gigantic building wraps of Oryx dress up: In the first of trying to establish a look for the city,

seven buildings have undergone large-scale graphic treatments. These were selected based on the density of urban activities, pedestrian movements, traffic signals occurring around them: Ramada Hotel, Sheikh Mohd Tower, Barzan Tower, Dana Towers, Qatar National Olympic Committee, Rydges Plaza and the Ministry of Economy and Commerce. The owners of these buildings have shown a great sense of national pride and a desire to be a part of this festive campaign.

• Adding color to the streets by installing banners featuring Orry. To round off the campaign, a selected number of water towers in the city were treated with an Orry makeover, a job that took about seven weeks to complete and involved 900 litres of paint. The water towers at the airport, at Al Khulaifat and at Al Rumaila were among the first to show off their new look. These were located at important attraction point typically visited by large crowds of people especially those from the expatriate community of Doha.

• In mid-September 2006 just three months before the event and as the games drew closer, phase two has started and included additional building wraps and giant building banners, spectacular lighting installations, 11,000 street banners creating a colorful journey for spectators, athletes and residents as they travel throughout the city. This phase highlighted the diversity of Asian populations and sports involved in the 15th Asian Games.

C. The High Level: The Symbolic Level
The symbolic level of environmental quality represents aspects that pertain to higher levels of meaning that corresponds to occupants'

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beliefs, world views; these include such qualities as status or historical value. This level suggests presenting the meaning and the design concept of the graphics and their impact on other qualities of the urban image of the city.

Meaning and the Design Concept: In the late 1960 the application of graphic design to architecture and urbanism in large-scale environmental graphics extended the formal concept of art concrete and the international typographic style. In design, postmodernism designated the work of architects and designers who were breaking with the international style so prevalent since the Bauhaus. This movement sent shock waves through the design establishment as it challenged the order and clarity of modern design (Meggs, 1998). The graphics of the Asian Games included variety of design elements that adapted the large scale technique of graphics and Arabic letterform inspired by the postmodern design movement such as supergraphics which became a popular name for bold geometric shapes of bright color, giant Helvetica letterforms, and huge pictographs warping walls, bending corners, and flowing from floor to the wall and across the ceiling. The design theme was based on adapting the supergraphic style by placing emphasis on developing a visual identity for the games spirit and by creating a "look" throughout a series of graphics applied to different indoor and outdoor settings (Figure 2).

a.

b.

c.

Figure 2:
a. Sheikh Khalifa Stadium, the major destination during the games event.
b. City Center Shopping Mall
c. Hyat Plaza Mall
A series of supergraphics installed in indoor and outdoor settings to establish a distinctive visual identity thoughout the city
(Source: A. Hasanin).

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Phase two of implementing the environmental graphic designs adopted the theme for the Look which is *'Old and New*,*'* integrating traditional elements of Qatari culture into postmodern patterns. This theme was reflected in the logo, mascot, pictograms, torch and medals, and building posters. The bright colors of the Sea, Sand and Sun were integrated to create dramatic urban corridors, the costumes of the volunteers, and the dress of workers and laborers.

The corporate identity of the Doha's Asian Games was designed to reflect the host city: modern, enthusiastic, and progressive while at the same time based firmly on cultural traditions and beliefs of the Arabian Peninsula, and the Gulf region. The theme 'Old and New' reflects Qatar's unique richness and diversity-a balance of the natural environment, heritage, culture, traditions, modern lifestyle and architecture, and the distinctive patterns this creates across the country. "Old" draws from the desert and tribal lifestyle, the sea where pearling, diving and fishing thrived. Textures and shapes from calligraphy and architecture reflecting the golden desert sands, and the turquoise blue sea are represented in soft, flowing patterns. On the other hand, "New" takes in the vibrant and rapid growth of modern Qatar. Included is the focus on diplomacy and moderation, the investment in technology, education and health, the lucrative production of oil and liquid gas, and the promotion of culture and sport. The contrasts between these two philosophies have helped create forms, materials, patterns and colors that had the capacity to give a glimpse into what to expect in Doha 2006: a rich mixture of ethnic cultures and spectacular sports.

Urban Legibility:
Residents' Reactions to Graphics-Based Urban Settings in Doha.

Evidently, there are a considerable number of approaches to address urban legibility. However, the approach adopted in the context of analyzing the environmental graphics of Doha's Asian Games based on framing up urban legibility as a concept within a socio-psychological perspective. This derived from the work of Ramadier and Moser who argue that the social legibility corresponds to the facility with which individuals use the socio-physical characteristics of their surroundings to produce or to internalize environmental meanings (Ramadier and Moser, 1998). On this basis, a series of "before and after" images were displayed to a random sample of residents with an aim to investigate the way in which places and buildings are identified in order to highlight the significance of memory of urban scenes and settings.

Eight urban scenes were identified ranging from most common and least common. Those that represented the most common scenes included settings around Doha Sheraton, Q-Post headquarters, and the City Center Shopping Mall, while those that represented the least common scenes included settings around Algharafah Stadium, Sheikh Khalifa Tennis and Squash Complex, and selected urban scenes from the newly established business district at Aldafnah area. Such labeling of commonalities is based on the location of the scenes within the city of Doha, and the intensity of land use in their immediate surroundings.

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A survey tool was designed and included the eight identified urban scenes, these were divided into two sheets, one for the "during" the games event, and the other after the fact. Ninety two residents of different ages and background have responded to the survey. They were asked to first identify the scenes after the games event, without environmental graphics, building wraps, posters, and banners, then they were asked to identify the same scenes during the games event with different types of graphics included.

The results of this procedure show that two of the most common urban scenes were identified by the all the respondents "during" and "after" the games event, the two scenes were those of Doha Sheraton, and Q-Post Headquarters. This is interpreted by the fact that the two scenes are in fact representing landmarks within the city of Doha as well as two major reasons, the first is their age as they were built since the early eighties and thus acquired recognition and meaning over time in the minds of the respondents. The second reason is the pyramidal building form that fosters a strong visual impression (Figure 3). Strikingly, the third most common urban scene without graphics was recognized by only 72% of the respondents, while the same scene was recognized by 65% of them (Figure 4). This was the represented by the setting around the City Center shopping mall. In fact, it was expected that most respondents would recognize the setting as it is one of the most important destinations in the city.

Evidently, other least common urban scenes were not recognized by the majority of the respondents including those of Algharafah Stadium (only 29%), Sheikh Khalifa Tennis and Squash Complex (only 14%), and two urban scenes from the newly established business district at Aldafnah (34% and 39%). Figures 5 and 6, illustrate these settings.
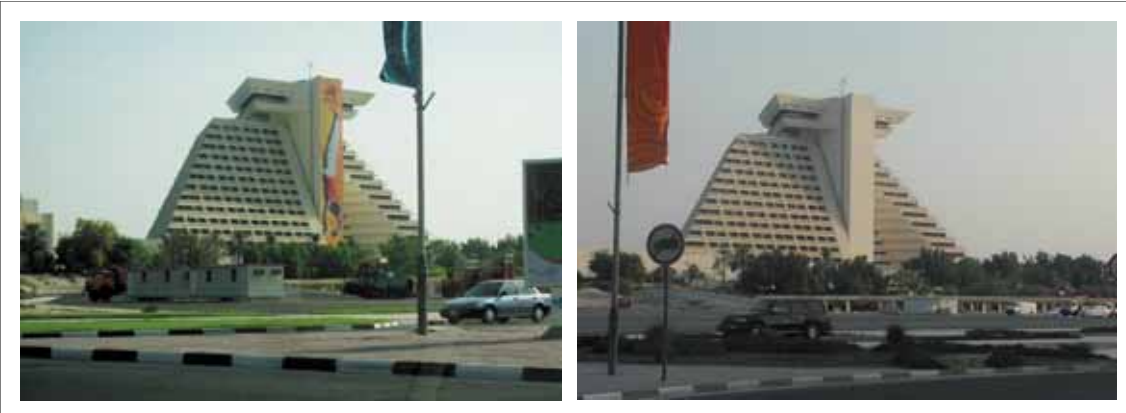

Figure 3: Doha Sheraton Hotel, one of the most common urban scenes that were recognized by all respondents in the 'during' and 'after' images of the games event. (Source: A. Hasanin).

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Figure 4: City Center Shopping Mall. Only 72% of the respondents were able to recognize the setting after the games, while 65% of them were able to recognize it with graphics included 'during' the games event. (Source: A. Hasanin).

Figure 5: Sheikh Khalifa Tennis and Squash Complex. Only 14% of the respondents were able to recognize the setting after the games event, while 82% were able to recognize it with graphics included 'during' the games event. (Source: A. Hasanin).

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Figure 6: An urban scene from the newly established business district at Aldafnah area. 34% of the respondents were able to recognize the setting after the games event, while 60% were able to recognize it with graphics included 'during' the games event. (Source: A. Hasanin).

In their notes on the survey, respondents stated that all the urban scenes presented in the images that included environmental graphics were more recognizable significantly that those without graphics. Strong reference in these notes was made to the combination of bright colors. Also, memory related aspects were stated as 88% of the respondents referred to that those images reminded them of how the city looked like during games event, how visually pleasing scenes were catalysts for them to go out in public spaces or drive through the city to watch the overall scenery. Notably, over 43% of the respondents stated that they wish that the all of games graphics and installations remained the same covering the buildings, sidewalks and fences. A considerable percentage of respondents (over 37%) noted that the city image will be more pleasing if environmental graphics receive the same attention during other future public events.

Epilogue: The Relevance Environmental Graphics in Shaping the Memory of City Images

By and large, the analysis of the environmental graphics of Doha's 15th Asian Games, and the residents reaction to a wide spectrum of urban scenes with and without environmental graphics suggest an important role graphics can play in shaping the city image while at the same time contributing to the urban legibility of the city. As well, the theoretical arguments, descriptive analysis, and the results of residents reaction to urban scenes reveal an important aspect that pertain to remembrance and memory

The memory we have of urban setting and scenes is formed to varying degrees by the way in which individuals form visual ideas on the identity of places, the way in which they establish a visual understanding of the qualities

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of places in urban locations. Such a memory is also influenced by a wide spectrum of factors including those of the relation between the private and public realm and the transformations which occur to produce a visually pleasing urban environment. This argument goes along a number of previous studies including the conceptual thinking of Benjamin (1999) on the thought process associated with artifacts and memory and of Bachelard (1969) on the narrative aspects of memory in the context of particular urban places.

The phenomenon of urban experience is not isolated from both sensual experiences and the memory of place. Those concepts also juxtapose with detail reference to the ambience of the urban scene. To an extent it may be suggested that the context of the way memory reveals experiences is that of both image and narrative. This idea, in a way, replicates the traditions and mythology associated with perceptions of the environment (Brierley, 2003). The memories which we have wither as individuals or as part of a group culture become more ingrained in our reminiscences of the urban experience when reinforced by the consistency of the manner in which we remember.

Environmental graphics can contribute in shaping the memory of city images and can help establish associations between people past, present and future experience of urban scenes. It is the author belief that Environmental graphic design (EGD) is a design profession embracing or woven into many design disciplines including graphic design, architecture and urban design, industrial design and landscape architecture. As field of research

and practice it concerns itself with the visual aspects of wayfinding, communicating identity and brands, information design, urban legibility and shaping a sense of place. Therefore an urgent call for including environmental graphics in the work of architects and urban designers is needed for shaping better memorable images of cities.

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