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Heritage interpretation: analysis study of the signage system used at the archaeological site of Umm Qais in northern Jordan

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ABSTRACT

Many of the problems impacting the visitor experience and comprehension of archaeological sites are derived from their interpretation. This research attempts to investigate interpretation in relation to visitor experience; the interpretive signage of the archaeological site of Umm Qais was chosen for analysis. The appropriateness of the spatial distribution (placement), attractiveness of the aesthetic features (design), and furthermore, effectiveness of the content and messages (theme) and whether the signs are considered helpful in regard to the visitor experience are investigated. The case-study research method used in this study integrates on-site signs evaluation to check the situation on the ground. Card notes, photos and observations were used to meet the purpose of this study. The findings indicate that little attention has been paid to the management of interpretation by site managers. Signs are concerned about their lack of appropriate placement, design and clear themes; in consequence, site managers have to reformulate their objectives, reassess the site's significance and then redevelop their interpretation practice in particular the signage system. The findings of this study benefit a number of professionals in the field of heritage management such as interpreters as well as visitors. It makes contribution in regard to tourism in both academic and professional spheres, as the issue of the study has not been researched in the country.

Introduction

The increasing numbers of visitors and the movement of different scholars and civil society organizations have contributed to the public awareness of their heritage. One of the ways archaeological sites benefit the broad-spectrum public is by providing information about their heritage wealth and helping them to appreciate it (Li, 2003). Different people have visited a heritage site, looked for a monument, place, service or information; perhaps signs were approached by visitors because they help directing and informing them (Jensen, 2006). The eventual challenge is therefore in offering interpretive structures and facilities that are appropriate to and compatible with both site values and guests desires (Aplin, 2002; Timothy & Boyd, 2003). In this sense, heritage interpretation at

archaeological sites is an issue of crucial importance for both site management and visitor experience (Uzzell & Ballantyne, 1998). Interpretation which is considered by scholars (Aplin, 2002; Timothy & Boyd, 2003; Uzzell & Ballantyne, 1998) to be an integral part of the heritage site management is also an important bridge of understanding between the site and the visitor (Graham, 2000). It is necessary that archaeological sites be actively managed and interpreted rather than left understood by the visitor himself alone because there are issues that must be revealed such as, importance, meaning, value and significance of the site, yet encouraging greater public awareness and presenting the site in a welcoming and positive way. Thus, while communicating with their audiences, archaeological site managers will often use a crafty form of communication known as interpretive media in order to support the management objectives and to communicate a readable story of the site. Umm Qais experiences a wide range of heritage management problems, numerous of which derive from the interpretation practice, and the most noteworthy interpretive concern is the incomplete and uncoordinated character of interpretation within the archaeological site. The incapability of site management and associated partners to consider interpretation best practice and the lack of trained professionals who conduct field research further confuse the problem.

To diversify Umm Qais' heritage and tourism products and to attract more visitors, site management offers systematic interpretive components in order to turn the site into a leading visitor destination, using interpretive media such as brochures, posters, trails, boards, panels, visitor center and signs. Thus, site management places an enormous importance in promoting archaeological and heritage tourism as a way to develop a site-specific significance, which will finally turn the site into a heritage tourist center. Although heritage interpretation is a vital element of the modern heritage tourism and heritage management, there has been a little concern by Umm Qais management on how visitors to site make use of the available interpretive media. However, the site has been opened to the public in the absence of suitable management principles (El-Khalili, 2014). This paper might report a descriptive analytical study of interpretive media, that is, interpretive signage usually employed at heritage sites. There has never been an attempt to understand the signage system though a decent interpretive signs analysis; there has not been any strategic planning which sets the vision and the goal of the management practice. Up to the present time, no one has ever attempted to undertake a research of the adequacy of the placement, design (physical appeal) and themes (engaging messages) of the available signs, how they are designed, where they are placed and what information they are presenting and whether the signs are considered helpful in regard to the visitor experience. Consequently, there has never been an evaluation of the effectiveness of the available interpretation programs. Thus, the signage system of the archaeological site of Umm Qais is the subject of detailed analysis in this research. In addition, the study focuses on understanding the site by identifying selected heritage resources and their potential. Moreover, in this study, attention is given to groups, categories and areas which require particular attention. The site for the study was selected based on the number of visitors the site received annually and the problems of on-site interpretation encountered; in addition, the researcher chose it as a case study by assuming its good representation of other destinations in the country. This research begins with the introduction and the literature review, which explore a number of key themes within the research. Following this, the research design outlines the research questions and objectives and the methods used to prepare and conduct the research. This is followed by a background

of the case-study site. The second half of the study examines the findings of the research, analyses these findings and answers the research question in a discussion of the results.

Signage and interpretation

The roles of interpretation have been the focus of scholarly discussion and analysis for years (Newsome, Moore, & Dowling, 2002; Veverka, 2011). Heritage interpretation literature is addressed by scholars in varied ways, some of which details its history and functions in places such as national parks (Brockman, 1978; Mackintosh, 1986), and some that focuses on the basic principles and interpretive planning (Ham, 1992; Tilden, 1957; Veverka, 2011). Other literatures have discussed the forms and media in which interpretation is given (Beck & Cable, 1998). According to Brochu (2003, p. 125), " … media is anything that helps you communicate your message". This may possibly consist of but is not limited to signs, brochures, audio or video presentations, interactive stations, touch-screen computer programs, graphics (Brochu, 2003). Signs are seen as one of the most important forms of interpretation (Hughes & Morrison-Saunders, 2002a) and one of the most widespread ways of presentation at archaeological sites today. Signs are used in a variety of settings and manners, from historic area to a natural park. Sign developers emphasize that with each application, the type of information or design and target population that is desired should be established. In fact, a number of studies (Jensen, 2006; Trapp, Gross, & Zimmerman, 1994) have demonstrated that signs have become an ordinary sight at many archaeological and heritage places because they are considered to be a useful and affordable method of providing interpretation for visitors. It has been argued by many (Moscardo, Ballantyne, & Hughes, 2003, Ververka, 2011) that signs have become an easy and broadly accepted way to promote natural and cultural heritage history.

There are dissimilar types of signs, as Mollerup (2005) put forward; signs can be divided into diverse types based on their location, purpose, theme, content and form. However, according to Gross, Zimmerman, and Buchholz (2006, p. 10)

> A sign is an inscribed board, or space that communicates something to the viewer. Signs can be divided into two categories; information signs and interpretive panels. The first kind used for directing, identifying, advertising, warning, and guiding. The second is telling the story of a resource, site or feature.

Each type of signs has its own benefits. Moscardo et al. (2003) note that the benefit of interpretive signs fall into categories such as identifying, describing and illustrating a variety of site-specific themes. They can also minimize impacts to scenic qualities (Moscardo, Woods, & Saltzer, 2004). Their main function is to tell a story and to educate visitors to the area about the historical or ecological values (Cole, Hammond, & McCool, 1997; Hughes & Morrison-Saunders, 2002a). On the other hand, information signs provide information about the use of the site and its services like showing trail user location, directions and distances (Drew, Grocke, & Cahalan, 2002).

Different studies (Moscardo et al., 2004; Screven, 1995) have suggested essential elements that produce a successful signage system. U.S. Forest Service (2009) urges planners to pay attention to themes of signs (identifiable), sign layout (size, height and text) and sign location (relationship with site features). Ballantyne et al.

(www. tourism.uq.edu.au/signage) provide a number of hints to meet during signage installation process, for example, signs should use a blend of pictorial and simple texts, and planners should insure an ongoing maintenance and seek a suitable location to place the signs in respect of the environment and visitors (Trapp et al., 1994). Different researchers emphasize the importance of sign content. Ververka (2011) suggest that themes preferably should be declared as a short, simple, complete sentence, contain only one idea if possible, be specific and interesting, and motivationally worded when possible. Aplin (2002, p. 43) explained that signage planning should provide direct attention to the message and help define content and material design. A combination of well-designed text with dioramas, and attractive colors, that covers the majority of the site's story could enhance and foster a real experience and meaning between the visitors and the overall landscape. Besides the themes and content of signs, another important aspect to consider when designing interpretation will be the physical layout of signs. Different researchers (Jensen, 2006; Moscardo et al., 2003, 2004; Screven, 1995) claim that sign design should be good looking and be a focus for target visitors; as such, a quality sign can increase the capacity to boost a viewer's attention, as well as hold their attention longer and help them keep better the main meaning. Some studies have shown that people prefer signs with the same design; they should adapt to weather and site character (Trapp et al., 1994). Furthermore, signs location can play an important role in providing information on a trail while should be consistent with the natural setting of the place. Thus, the signs should be clear, the same size, and they should be placed at the eye level of a person standing (Edwards, 1994). "Signs should also be located and positioned where their attention does not create a hazard or obscure a hazard" (Drew et al., 2002). With regard to best practice for interpretive sign design at heritage sites, there are several manuals and guidelines (Department of Conservation, 2005; Drew et al., 2002; Jamieson & Noble, 2000) recommended by heritage and recreation experts. Their recommendations center on the physical appeal that provokes interest with interesting texts and graphics.

There is a small amount of literature that assesses the interpretive signage practice. The studies that have been conducted to evaluate the interpretive services and signage in particular are limited; those studies were done generally to the effectiveness of signage in places such as zoos, botanical garden (Honig & Booth, 2000) and museum and less to one implemented in archaeological sites. Most of the available studies had looked at artistic and content design, conservation awareness, and impact of signs on site visitation as indicator of interpretation effectiveness. Jensen's study in (2006) emphasizes to evaluate the effectiveness of artistic design of interpretive signage via experimental design method. Results showed that artistic component of signs is quickly noticed by visitors. In earlier work, Hughes and Morrison-Saunders (2002a) found that the availability of signs was a point of interest for repeat visitors in the Tree Top Walk site in Western Australia.

There is no doubt that interpretive signs are crucial for attitude change of visitors. Ismail (2008) conducted a study on the role of developed interpretive signage in conservation knowledge, awareness and behavior among visitors at Penang National Park. Findings from this study proved that the impact of interpretive signage had essentially enhanced conservation awareness among the visitors and can be useful as a linkage for visitors to share their awareness and appreciation toward natural resources.

In their review of signage system at historic environment, Saipradist and Staiff (2008) studied the interpretation context including the signage system at Sukhothai Historical Park at Thailand. Their study revealed that the content analysis of the signage at temples within the ancient city of Ayutthaya has several problems related to the texts: the signs are in Thai and English, the English is regularly a literal translation of the Thai and this leads to substantial problems of understanding for those who can read English. In a collaborative report between the City of Fort Collins Natural Areas Program and Colorado State University, Davis (2009) examined how repeat visitors at the City of Fort Collins Natural Areas interact with knowledge-based interpretive signs. He concluded that the use of interpretive signs for the purpose of education should be continued in the City of Fort Collins Natural Area trails. Studies show that signs may encourage visits and raise the awareness about conservation and knowledge of site's value. Patin (2005) states that well-designed signs have a positive impact on the "aesthetic" and "artistic" value of the tourist site.

Site-based interpretive tools, such as signs, play a fundamental role in the overall tourism experience (Hughes & Morrison-Saunders, 2002b; Serrell, 1996). Cole et al. (1997) found that visitors' knowledge increased significantly following exposure to trailside signs. In addition, Poria, Avital, and Arie (2007) noted that the visitor experience is highly influenced by the interpretation at heritage sites. In recent times, signage system has become a key objective in enhancing the visitor experience of the site, and improving public knowledge of local heritage. For example, in their manual, *Welcome! A manual to enhance community signage and visitor experience*, Stone and Vaugeois (2007, p. 10) stated that "Improved signage helps to define a community's image and creates a sense of place. When a community becomes easier to navigate, the experience is improved for tourists and residents".

A successful signage practice not only provides direction and information, but also plays a key role in linking visitors to product or experiences within the visited site. Falk and Dierking (1992) confirmed that physical environment of the site and the interpretive media have an effect on the visitor experience, as visitors are affected in a different way by physical components and are careful in what they look at and interact with while moving through a museum. The use of interpretive signs allows for free choice learning to occur at the discretion of the participant. Even if they are not personally motivated to learn, visitors enjoy the presence of the signs as a possible platform for learning. Research conducted by Moscardo (1996, p. 5) in the Skyrail Cableway in Australia to find out if visitors were more satisfied with the Skyrail experience because of interpretation indicated that visitors who experienced any of the three interpretive components were significantly more satisfied with their experience than those who rode on the cableway. Unfortunately, signage interpretive potential to support tourism experience is not often being met. Constraints in the delivery of quality interpretation by signs in heritage-based tourism sites have been highlighted in the literature. U.S. Forest Service (2009) distinguishes the main limitation for interpretive signs; however, they have limited ability to satisfy different visitor needs. They also communicate in one way and they are vulnerable to damage and vandalism. Moreover, past research has identified the relationship between the demographic and social variables and the impact of interpretive media on the tourist experience. Kuo (2002) suggests that interpretive media should be designed to encompass visitor demographic variables such as gender, nationality and age. Thus, it is the responsibility of the

site management to devise effective signage to inform a diverse public of its values (Serrell, 1996). Therefore, the key issue to consider is how we can effectively conceive interpretive signage system at a heritage site so that site manager can adequately benefit from the tourism experience. Scholarly research and practical projects have led to more attractive signage system, the reason why there have been a number of authors (Hughes & Morrison-Saunders, 2002a; Moscardo et al., 2003) who have provided conceptual guidelines for effective signs to achieve maximum visitor experience.

Veverka (2011) argues that providing interpretive signage rather than informational signage helps to reveal meaning of sites and increase their enjoyment. Ferguson, Ravelli, and MacLulich (1995) address this issue by describing three basic elements that form the basis for legibility in signs including the title, introductory paragraph and additional detail. In addition to those principles, Ham (1992, pp. 8–29) presented four qualities that any environmental interpretation should have. However, the existing interpretation and signage research highlight some challenging problems in evaluating the effectiveness of interpretation. Previous studies show that the reasons behind this could be categorized into two groups, the first associated with the sign place, content and attractiveness and the second related to the characteristics of visitors. To conclude this section, it is important to highlight that the overall conception of signs is complex and the complexity varies depending on the environment and material, topic and theme and the place of the conducted sign. The ability to implement an effective interpretive sign that achieves a balance between the need of the site and the need of the diverse public is difficult.

Methodology

To address the complexity of signs analysis in the framework of heritage interpretation, the case-study method is preferred. Here, secondary resources as well as direct observations and interviewing can be used for the investigation procedure. As Schell (1992) mentioned, the advantage of the case study is its ability to handle a full range of data as documentation, artifacts, interviews and observations. This study mainly is exploratory in nature, largely because there have been only a few previous studies conducted in this specific arena. The study site is the archaeological site of Umm Qais, which was chosen for many reasons. First, the site is submitted by Ministry of Tourism and Antiquities (MOTA) on the tentative list of World Heritage Sites of the UNESCO. Second, it offers major tourism attractions based on historic resources, historic downtowns and archaeological resources beside a scenic landscape. Third, the lack of action plans in the context of interpretation as a whole and signage system planning in particular. Fourth, the site is one of the most popular destinations for domestic and international tourists in Jordan. The objectives of this study are fourfold. First, to record the spatial distribution of the signs on the chosen heritage site (placement). Second, to analyze the physical appeal of the signs (design). Third, to identify the type of signs according to the content and the function (theme). Fourth, whether the signs are considered helpful in regard to the visitor experience. For these objectives to be reached, a number of key actions were followed. Initial discussion with sites staff were undertaken to determine their visions, missions and the importance of the site, also to determine the effective interpretation programs. A contact with the tourism staff and the manager of the Tourism office of Umm Qais was made to interview details of sign planning

and rules if there were any standard. The staff was asked to provide any available documentation related to the operation of the site such as mission reports, management plans, annual reports and research studies. For purposes of anonymity, citations from the interviews are used in the discussion section without naming the person who provided them. The author has conducted initial signs inspection and analysis on the key standing signs on the site during spring and summer 2012. All the trails were experienced as first-hand experience and all of the available signs were studied; signs were photographed, the information contents were taken into note and the locations were recorded. Specifically, the emphasis of the field study includes how the signage has been designed, what they aim to explain and where they are located and lastly, visitors were observed while they were at the site to determine the signage impact on their experience. Information collected was used to develop knowledge assessment component of visitors' interviews. To further develop an understanding of existing interpretive signage planning, a literature review was undertaken; background information about heritage interpretation was studied. The study reviewed the profile of the public visiting the site from previous studies to know the visitors of the site that can be connected with the content and design of the signs. The fourth objective of the study was informed by the author's experience as a tour guide and site and tourists observations constituting the critical review regarding the visitor experience. The information collected from previous approaches and the survey have provided information about design, placement and content of signs. The gathered data were used to classify the types of signs, the appropriateness of their design and the adequacy of their distribution. The analysis was done to achieve the purpose of the study, transcripts of interviews were analyzed to uncover the themes related to the interpretive signage planning, paying close attention to positive and negative aspects of the way signs are set and provided; during the analysis, the observation notes were printed; differences and similarities among the data as well as the information that supports or disproves interview findings were highlighted and categorized, then they were put together into larger themes (Emerson, Fretz, & Shaw, 1995; Silverman, 2001). The different issues of the study are investigated, analyzed and discussed to evaluate how effective the signage system is at the case-study site. This has been useful to provide perspectives and answers mainly with regard to interpretive themes and significance appropriated to the public on the site, and integrity of the wider cultural and natural heritage resources. The results may help interested professionals pay more attention in designing interpretive programs in order to offer quality interpretation services to visitors in the future.

Study site

The famous town of Umm Qais is located about 110 kilometers north of the Jordanian capital Amman, rising about 378 meters above sea level (see Figure 1). The cultural landscape of Umm Qais is comprised of archaeological resources associated with several historic periods. This town which was known as Gadara is one of the ancient Greco-Roman cities of the Decapolis (Browning, 1982). The site of Umm Qais has some of the outstanding landscape and cultural heritage. The area where the village of Umm Qais is located has a rich natural and cultural resources. The sites in the surrounding contain different archaeological remains and monuments. This site and its associated landscapes help in understanding the history and evolution of this part in Jordan.
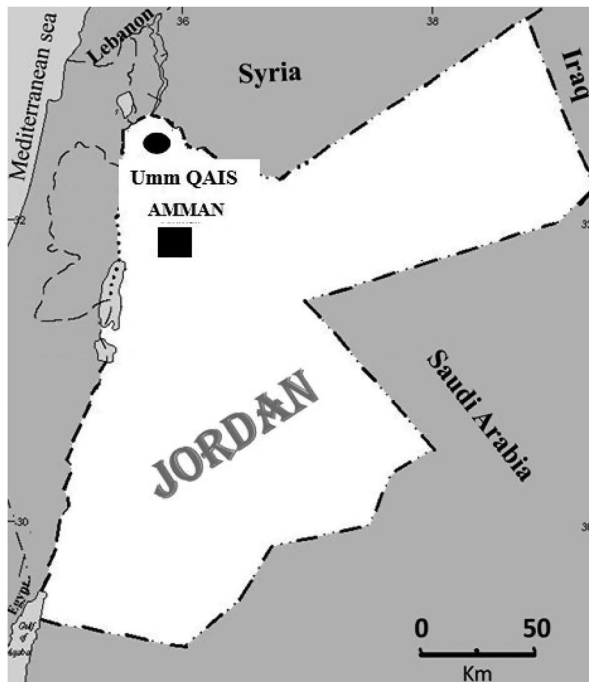
Figure 1. Location of Umm Qais. Source: Modified by the author and based on Sekhaneh.

The standing monuments are good testimonies of the communities, cultures and history that occurred in this site. Umm Qais has many traditional and historical significant buildings, most of which were constructed in the late 1800s or early 1900s during the Ottoman Turkish era. Fortunately, most of these buildings are in relatively good shape and preserve their own design today: four buildings are in use, and these buildings still function as a museum, rest house, tourist police station and a visitor center in process. The immediate surrounding area has abundant and outstanding water resources that contribute to the economy, health and identity of Umm Qais. The mineral and hot spring of Al Himma also provide tremendous recreation and therapeutic opportunities for residents and visitors. Umm Qais is located in the natural landscape known as the Hauran plains. This area is stretching from Jordanian Syrian borders and it encompasses the region along the Yarmouk valley to the agricultural plains of Irbid. Immediately to the north west of the site area is located the famous lake of Tiberias, with its history with the passage of Jesus Christ, and provides an excellent scenic view with memorable religious moments. In the north east of the site is located the historic place where occurred the famous battle of Yarmouk between Muslims and Byzantines in 636 of the new era. All of the former elements are an important part of the current culture and the identity of the site of Umm Qais (see Figure 2). The basic conclusion that needs to be drawn from these data is simply that the site has the potential of other forms of tourism than archaeological heritage-based tourism (see Table 1). The site is one of the main tourist attractions in north Jordan; at the same time, it is one of the most visited tourist attractions in Jordan
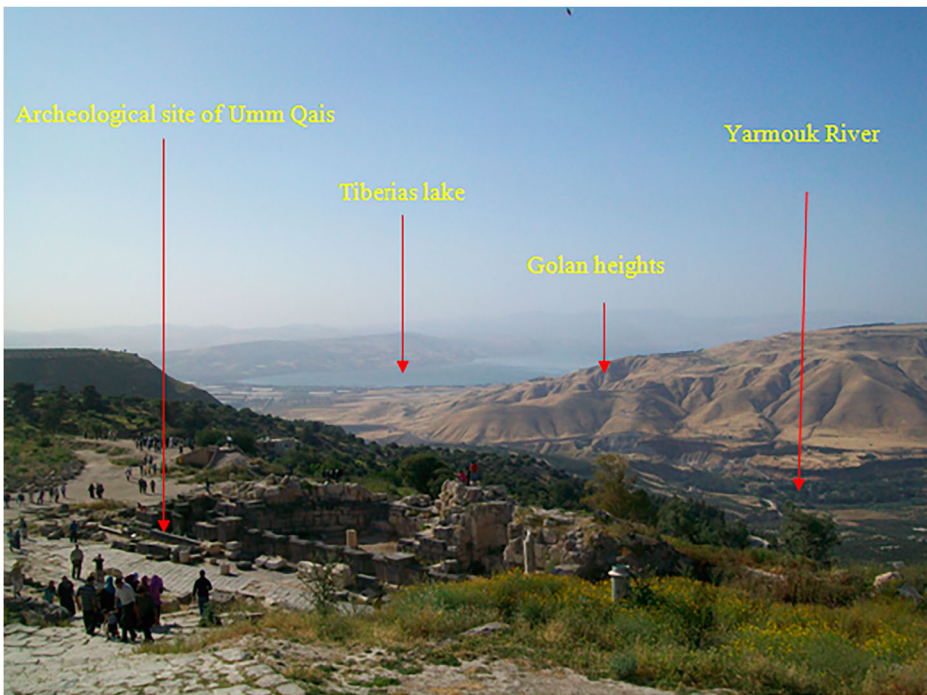
Figure 2. The view from the site. Source: Author.

by both domestic and international tourists. In 2011, Umm Qais had a visitation of 147,144 domestic tourists and 44,941 international tourists; compared to the data of 2010, there was an increase of 78.4% and a slight decrease of 38, 5%, respectively (MOTA Statistical Bulletin, 2010). Umm Qais provides three primary visitor destinations: archaeological site, historical Ottoman village and the surrounding environment. The site provides a visitor center, parking, trails, museum, preserved historic and natural resources, interpretation, picnicking and the site is publicly accessible and all facilities are day use, and open year-round. The appeal of the site is based around a place of learning, cultural understanding and recreational enjoyment (see Table 1).

Table 1. Tourism resource and their potential.

Types of available Tourism Resources	Umm Qais	Potential tourisme
Heritage Attractions	Archaeological monuments, museums, historic landscape	Cultural heritage tourism
Handicrafts and Commerce	Souvenir products, agricultural products	Cultural tourism
Religious Resources	Churches, shrines, mosques, religious historic areas, religious historic events	Religious tourism
Modern Popular culture	Traditional events, religious events, dialects, traditional cuisine, traditions and customs, festival of Umm Qais	Cultural tourism, township tourism
Natural Assets	Rural landscape, rivers, hot springs, agricultural lands and products	Rural tourism, Eco tourism, therapeutic tourism

Source: Author.

Current situation

The information below has been adapted from the notes gathered during the field study which described a series of likely patterns of tourism and interpretation activity of visitors who experience the site. The course of the twentieth century saw some significant changes taking place at Umm Qais, most which have to deal with preservation and increasing its appeal as a major national and international destination. Today, the site is with no doubt major visitor attraction in the cultural heritage domain in northern Jordan. Following a report on the tourism in Jordan (Shdeifat, Mohsen, Mustafa, Al-Ali, & Al-Mhaisen, 2005), Umm Qais only topped in terms of visitor numbers by Jarash and Petra. During the field study, the site's tourism director reports that the yearly visitation peak periods are spring and autumn seasons while there are two peak visitation periods each day. The first peak occurred between 09:00 am and 11: 30 am. The second peak is from 03:00 pm until 4:30 pm. Most of the visits are one-day visit. Jordan Tour Guides Association (personnel contact, 16 January 2012) reports that guided tourists spend 45 minutes on average during the visit; they do not frequently have more time to spend because daily tourist programs are over charged. It is important to note that visitors who visit the site individually without guiding services may have spent more time at the site than those who are visiting the site on organized package tours. The visitor monitor director (personal contact, 20 January 2012) reports that the visitors are diverse in term of age, sex, nationality and cultural background. For example, foreigners, Arabs, and local families are visiting the site as well as local school students. He further indicated that the site gets lots of repeat visitors and most of them are young locals, families and school students.

Umm Qais is a favored site for a variety of motivations and purposes. The primary motivation of visitors coming to the site is outdoor recreation opportunities like sightseeing or touring, walking for pleasure, view and photograph of natural scenery, picnicking, education and exploration. The tour experience starts when the visitor arrives at the parking lot and begins the visit from the ticket kiosk. It continues as the visitor tours archaeological monuments, walks through the historic traditional Ottoman village and perhaps visits the site museum. Most visitors whether they are locals or internationals appreciate the viewpoint overlooking the Tiberias Lake, the Golan Heights and the Yarmouk River. The Director of tourism office (Personal contact, 20 January 2012) pinpoints on the site map the main stopping points of travelers within the site during their tour. He recorded up to five stops per traveler: the Greco-Roman theatre and the viewpoint are the most frequented visiting places; the Byzantine church, the Ottoman village and the museum are followed. The site has already begun many projects to manage tourism. According to the site's tourism director, over the past 15 years, Tourism Office has installed signs along the site; both the German Protestant Institute and the European Union have been partners in this process and continue to develop programs since then. It started as a series of simple, vertical iron routed signs identifying Umm Qais era features. The next series of signs focused on the theatres of the site and the city wall. These initial signs were intended to provide basic information and encourage visitors for walking tours (see Figure 3).

It was observed that there are 11 signs being dedicated and installed at the site along the frequented trail to orient, and educate visitors of Umm Qais' rich heritage; they include

Figure 3. Different functional signs. Source: Author.

information, direction, promotion and interpretive signs. There are only two information signs; they are located near the theatres, they are printed on Aluminum sheet with silver background and black lettering. The signs give details of names and dates of the monuments. Two directional signs appear near the site museum; both are printed on iron sheet with a blue background and white lettering. Both of them inform visitors of the location of the museum. Two different promotion signs were found; the first one is printed on white iron sheet with black lettering forwarding working hours of the site; the second is a map sign promoting the tour inside the site by introducing the interesting monuments that the visitor may visit. There are five different interpretive signs some of which are printed on paper pasted on iron support; the others are printed on blue iron sheet in white littering. All of these signs could be found near the theaters and museum area and near the entrance of the site (see Table 2).

The observation further showed that the location of the signs has an apparent pattern; different signs (nine signs) are free standing signs; there are only two signs that hanged perpendicular to the buildings and over the sidewalks of the trail. Each of the free standing monuments on the sidewalks has a sign; the tendency of the free standing signs in front of the monuments is to be information signs. It should also be noted that the overall sign system is posted near main archaeological monuments, the sector including monumental architectural houses dated back to the Turkish era left without any kind of signs as well as important parts of the site and resources are not considered by the signage system (see Figure 4).

Table 2. Signage system at Umm Qais.

Sign category	Object	Place	Color	Material support	Number
Directional	Direction of the museum	Near the museum	White on blue background	Iron support	2
Information	Available services, names of monuments, dates of monuments	Near the western theatre, the eastern theatre, city wall	Black on silver background	Aluminum support	2
Promotion	Services, working hours, map of the site	Near ticket office, museum	Black on white, and black on silver	Iron support, aluminum support	2
Interpretive	Museum without borders, ommeyads, history of the site	Near western theatre, near museum	Basically blue and black	Paper on iron support	5

Source: Author.

Figure 4. Part of the site with signs Source: Ababneh' work based on Google earth..

The files contain little information concerning the original theme of the signs. It would come out that the motivator was a desire to basic tourists information about the site chronology and history. An important number of the signs inform tourists of the location of facilities and provide names and dates, periods of monuments in bilingual (Arabic and English). However, German language applies to five signs. For instance, the sign at the entry of the site contains: *Umm Qais (Gadara) was founded in the early 3rd century BC by the Ptolemies, In 64 BC the Roman general Pompey founded the Decapolis, a league of ten autonomous cities among them Abila, Pella, Gerasa; Philadelphia flourished in the Roman (64 BC 324 AD) Byzantine (324 AD 636 AD) and the Umayyad (661 AD 750 AD) periods. In 749 AD the city was destroyed by a devastating earthquake and never has been rebuilt.*

However, there is no coordinated sign strategy for the color, script and font. There were dramatic differences among signs material, color and shape, through the observation process, the difference of standardizing the whole of the signage system became obvious due to different involved authorities.

Critique of the signs at Umm Qais: evaluation and findings

The following are the summary of the critical points about the signage system of Umm Qais, based on field investigation, discussion with staff and literature review: interpretation is an integral part of the whole management process of heritage resources. Signage system is one of the most advantageous non-personal techniques approached by

interpreters. The site uses a number of interpretive tools to communicate the main themes and stories that are presented. As observed during the field study, the most important and valuable tool is the visitor center; there are also the self-guide brochures available in a number of languages in addition to the signage system. The site of Umm Qais possesses different heritage resources; today, these heritage foundations provide much interest because the site contains archaeological, historic monuments, moreover, different scenic views and religious events, in addition to different intangible heritage resources of the traditional life of local inhabitants. As discussed earlier in this study, Umm Qais' cultural identity is based on different cultural and natural resources. Therefore, interpreters have rich stories and themes such as the living heritage and cultural spaces that they can integrate them in the signage system. These stories could be the basis of the signage content and presenting the natural history of the site and how life was lived on the site. Tourism office director and Tour Guides Association report (Personal contact, 2012) that these themes are the basis of what locals and tourists seek to know about the site and its environment. These themes can be communicated through several signs at several places around main features and at attractive viewpoints. However, with careful consideration, those signs are not efficient since Umm Qais has no interpretation planning framework. Details below show the various weak points of existing interpretation through signs. Conclusions that can be drawn regarding the key areas of the research are: in terms of effectiveness of the *content and messages* and always according to the field study, it is found that several physical and non-physical heritage resources such as monuments including the Ottoman sector and social life of many successive historic periods such as Islamic and Ottoman periods offer opportunities for interpretation in addition to the visited part of the site, but they do not find their place in the interpretation system. The shared beauty of the archaeological site with the natural setting can offer an uncommon occasion to incorporate nature with cultural-based tourism. The scenic view overlooking the Golan Heights with the Tieberias Lake, the Yarmouk Valley, the hot springs of Al Hima, the Ottoman village, the traditional life way of locals, each presents its own unique characteristics and allows signage system to focus on key themes and sub themes. Signs in their present form are concentrating on communicating the chronological and archaeological information during the classical period (Greco-Roman) and the time period chosen is concentrated on selected periods such as Greek and Roman instead to span the different significant periods such as Islamic and Ottoman. The site has an impressive inventory of historic structures; however, this inventory may not reflect the full extent of Umm Qais' history. The Roman classical period is almost interpreted, while the post Roman periods are not interpreted. The absence of natural heritage and the culture of the inhabitants support this conclusion (see Figure 5).

While regarding *attractiveness of aesthetic and physical appeal* of the signs, critical problem in the signage system is that of the absence of uniformity of style across the site; signs vary in design, dimension, height, color, font, material and were in some instances developed with the support of different organizations. Up to this date, the sign design has not considered some audience categories, which means that the audience's analysis is not considered in the site development policies. Consequently and at the heart of this breakdown is the issue of the accessibility of mobility-impaired visitor. However, free access is not always possible; eight signs are not convenient in terms of relatively direct paths, short walking distances from the entry and parking to the monuments

Figure 5. Information sign. Source: Author.

and visited area. It is concluded that the choice of people with disabilities (children, elderly, foreign language-speaking, visually impaired and mobility-impaired visitors) who want to make the same choices as other visitors such as to participate in interpretive experiences and learn about cultural heritage is limited. This limitation of participation may be due to the illegibility of the text and the height of signs (see Table 3). The form, font size and prints to background contrast, all influence sign readability. Other factors such as the plaque placement angle and sign height influence legibility and access of visitors. For example, children and senior citizens may have trouble reading the high mounted signs and for different reasons, children may not be tall enough while seniors may not have the quality of eye sight to read the text properly.

The visited part between the western theatre and the museum consists of very small, highly vandalized signs, some of which are virtually impossible to read and in poor condition. Vandalism is a concern and tends to occur in spurts and once erected, most signs receive little if any direct maintenance, this being most apparent along the tiled street. From the overall signs checklist, it is found that seven signs are damaged, ten are faded and brittle from long exposure (see Figure 6). In most cases, the written

Table 3. Size and sign dimensions.

Width	Length	Height	Total
140 cm	148 cm	145 cm	1
35 cm	60 cm	210 cm	1
48 cm	73 cm	190 cm	1
35 cm	40 cm	200 cm	2
30 cm	30 cm	27 cm	2
145 cm	47 cm	73 cm	2
60 cm	60 cm	190 cm	2

Source: Author.

Figure 6. Faded signs. Source: Author.

information was used alone without any support of pictograms; moreover, the chosen size and colors do not achieve an inviting presentation.

Regarding the third key area of the study, the *special placement and location of the signs*, all of the signs are located at several places along the trail in the small visited area of the site, but not necessarily in places that are easy to walk or to access (see Figure 7). Among

Figure 7. Inadequate design with accessibility needs.
Source: Author.

these signs, it is found three signs along the tiled street in front of the western theatre and two signs next to the museum in the Ottoman village sector. These places represent only a small subset of a much larger attraction and potential experience, and so the visitor is able to get only a very constrained spatial and temporal experience compared to other visitors to other sites. Many other parts of the city are better known, or with easier access, that is, the Nymphaeum, the Colonnaded Street, the Market of the city, the Necropolis, the traditional houses of the Ottoman village; however, the signs are not installed in these places.

On-site signs are limited and grouped closely to the small visited area which is previously mentioned. The signs only covered a small part of the site, never more than 200 meter from the entry to the site but providing virtual access to it. Given that the site covers some 850 acres, it is felt that the benefits of the signs could have been used to interpret a wider area. To a large degree, various signs are difficult to approach because they are surrounded by vegetation. A short and simple walk side route has been designated through the archaeological monuments; it poses danger to visitors in some places between the western theatre, the access way to the Ottoman village, and the access way to the scenic viewpoint. It is worthy to note that there are two map signs presenting the locations of facilities and services of the site. It is valuable to mention that the map is very rough and it does not show the visitor the trails and the pathways linking the monuments of the site. The map sign found at the museum shows an example of misleading situation due to wrong localization of some monuments. The information incorporated in the map sign did not, however, elicit positive impression; it is viewed as disappointing, with even the accuracy of the information provided questioned. As discussed in the literature review, how a site is interpreted can influence the experience and expectations of visitors. The findings collected from the observation state of data gathering show the kinds of signs used in Umm Qais. The responses from the visitors' open discussion jointly with observations show that visitors demonstrated great interest in learning about many aspects of archaeological and historical environment of Umm Qais, such as archaeology, architecture, agriculture and social history. Reponses from visitors stated that quite a lot of signs are located too far from the walkways or located in position where the sunshine falls and may result in difficulties to see them clearly. Elderly visitors were particularly concerned about the height and the sizes used and wished for bigger font. Most interviewed visitors were unsatisfied with the interpretive signs. However, certain visitors gave propositions for further enhancement, *as one visitor stated*: "The site can be experienced in a much more dynamic and engaging manner through improvements to site interpretation and circulation. Given a site as complex as Umm Qais without information is not easily understood by non-specialists".

Clearly, connecting to the visitor experience, visitors both domestic and internationals flock to the terrace overlooking the natural landscape while many parts of the site comprising archaeological monuments and historical buildings are not visited at all. As observed, the existing interpretive signs are the only items along the main trail that provide information about the property and they can only engage visitor interest for a few seconds. The site is highly significant, powerful in the stories it contains, rich in history; yet, to this point, signage is unable to convey much. While during the site visits, it was noted that different parts of the site are underutilized and largely unknown to the public such as the colonnaded street, the Ottoman village, the tombs, the museum and the visitor center, through a discussion with ticket staff, they claimed that visitors

may come to the site with diverse interests including unlike time periods, people and life-styles, and have all of their questions unanswered.

This study adds to the growing body of knowledge on interpretation in heritage sites by considering the role of signage system at an attractive archaeological site that presents several interpretive challenges to visitors. Indeed, from the above analysis, different trends could be interpreted: First, many opportunities for interpreting heritage resources are missing; the current signage system does not deliver the diverse sequence of historical events and all aspects of the site's legacy. Second, the site has a limited number of quality on-site interpretations and currently has no unified sign system; they are outdated and do not convey an appropriate message and good visual impression of the site. Third, as it can be seen, the signage system falls short of meeting interpretation objectives of educating, orienting and providing helpful services to the visitors; Wayfinding signage to the historic Ottoman part is poor, and the sector remains mostly hidden from potential visitors. Fourth, observations in the field established that few tourists read signs while touring the site. Different monuments such as main streets, tombs and houses are currently unknown to large segments of the visitors. The analysis of the research has shown that while Umm Qais provide layered interpretation, parts of the overall history of the site are not being told in an effective manner to the visitor. The current signage system does not encourage a meaningful contribution to the visitor's understanding and knowledge of the archaeological site. Signs lack the theme, physical appeal, and holding power to attract visitors. Observations conducted revealed that, on average, visitors spend less than 45 minutes in the site. Many visitors were observed stopping and leaving signs at the site in less than 3 seconds. It is recognized that the interpretation system is a monument-specific rather than site-specific one. The attractions of mountains and scenic places are not evaluated according to natural beauty per se but according to the tangible cultural heritage embodied in the site, without any kind of connections with famous people and famous cultural elites. The lack of connect between monuments and their wider urban context ensures that the monumental area stretched between the museum and the entry of the site becomes tourist enclave, isolated from its surroundings, with increasing pressure from visits concentrated within its boundaries. The site is a tourist districts which is generally isolated physically and culturally from the local community and exists in the rural regions. Inescapably, the heritage potentials in the city are neglected and the profit of local community is quite intercepted. The nature of the text and the type of content were also summarized to the minimum, as it told little about the fundamentals of the monuments, and failed to contextualize relations between cultural properties and communities in achieving their common future. Comment by visitors interviewed was stating disappointment and difficulty to get answers for some of the questions and finding monuments on site. The lack of on-site signage and clarity was an issue expressed by a best part of the interviewed visitors. Possible causes for this is that interpretation of the site consists of the tourist attractions of the site only. Indeed, the result of this study can be summed up in affirming that the current system of signage in this site is significantly deficient in policies and practices that allow meaningful interpretation. Referring to the literature review, it is emphasized that signs play a major role in visitor attractions. They are described as essential instruments for developing tourist sites in a sustainable manner. Previous studies (Saipradist & Staiff, 2008) have shown that visitor needs are varied and have desires to participate and experience the site; therefore, the signage

system must be designed according to visitor's desires and the experience they look to pursue. Furthermore, the findings are incompatible with the results of previous studies since, for example, it does not inform the sixth principle of interpretation studied by Tilden (1957) which encompasses showing pictures and pointing out the nearby environment to explain, educate and interpret heritage to visitors. The study further showed that the selected case study has a legal responsibility for providing interpretive services. However, it is found that there is no written reference to signage system planning in their management or interpretation documents. Although the site management obviously perceives interpretation as an important part of the visitor experience in heritage sites, and interpretation arrangement is among the requirements to be accredited as a National and a World Heritage Site, no guiding principles are available on how to develop a "best practice" visitor interpretation program. There are several possible explanations for these unexpected findings. One possible reason of why signs lack consistency is the inattention of the stakeholders to the attractiveness of heritage resources and the profile of visitors. The most pressing challenge among all of these stakeholders is that each is functioning separately and in a non-coordinated manner with the others. Similarly, available interpretive media (signs, brochure and visitor center) were produced without link between each of them. In the course of this study, each of the studied key areas illustrates the challenge of providing good and complete story of the cultural and natural identity of the site, although the sites embody rich stories and various attractions. Looking at the card notes and the photographs, it can be assumed that site interpretation includes a number of crucial elements: the amount and the type of themes presented; the way the content is presented; the way signs look; and the availability of signs. If all of these elements are not completely agreed, then the purpose of site interpretation is not totally implemented. From the summary above, it can be seen that the low quality of signs, the lack of knowledge of the non-personal interpretation tools point to a poor interpretation practice and a lack of interpretation plan. Signs at the heritage site of Umm Qais present numerous challenges that can only be met by inspired responses generated by modern paradigms of thinking about heritage interpretation. The archaeological site is not reaching its full potential. Interpretive planning and practice is the only way to address site's full potentials. As part of the interpretation plan, a database should be established that includes interpretation goals, themes and visitor profiles, and should address financial and human expertise.

Conclusion

This research presents the results of the first academic study of signage system analysis in heritage sites in Jordan, in particular, the archaeological site of Umm Qais, which is projected by MOTA on the tentative list as a potential World Heritage Site. The purpose of the study was to analyze the available signage system and to find if it is appropriate with the potential heritage richness of the site. Signage system is a method approached by heritage sites professionals and naturalists to help sites visitors gain experiences in heritage resources while enjoying the activities. The analysis of the case studies suggests that Umm Qais can benefit from allowing variety in their interpretation. The site management is already aware of the need for increased interpretive trails within the site and is working with consultants to design a professional interpretive trail. The significant finding in this

study is that of the interpretation media, in particular that the signs lack consistency. Consequently, the current signage does not necessarily ensure an enjoyable visit. For this purpose, the study of the overall significance of the site and then the characteristics of the visitors are major steps to establish good-quality signs. The following improvements to signs could advance the visitor experience in Umm Qais:

- The signs should have basic template with cohesion in graphic design; the most apparent suggestion for Umm Qais' signs would be to rewrite their text, and this would include a change of the whole sign, incorporating reconstruction drawings as well as more engaging text, which encourage participants to question what they see.
- The interpretive text should be thematic, more coordinated organization of themes around historical, cultural and natural topics, improved signage that links more clearly to the historical topics and developed themes of the region and communities as well as engaging those of the present; the sign content should be considered as a "frame" that facilitates reading and interpreting historical and natural attractions. Such an approach does not cut off heritage monuments from their surroundings as a fenced archaeological site does.
- The signs should be consistent with site features and visitor characteristics; an evaluation/survey of visitor preferences associated with the interpretive facilities in the site should be completed.

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