

## MITIGATION MEASURE GUIDELINES FOR THE MODERN USES IN ARCHEOLOGICAL SITES: JERASH FESTIVAL – JORDAN

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### Abstract

*Cultural festivals at archaeological sites increasingly represent a dynamic interface between heritage promotion and local economic revitalization. The Jerash Festival in Jordan exemplifies this contemporary use, transforming the archaeological site of Jerash into a vibrant cultural venue. While festivals support the cultural and socio-economic sustainability of communities, they may also pose substantial threats to the physical fabric and architectural integrity of archaeological sites. Addressing the need for context-specific operational guidance, this study proposes guidelines for mitigation measures to ensure compatible utilization of the Jerash site during the Jerash Festival. The guidelines are informed by a review of international conservation charters, including the Verona and Siracusa Charters, and reinforced through field-based diagnostic assessments. The research identifies seven critical issues to consider: site management plan; conservation and preservation; modern utilization; safety and security; interpretation, promotion, and presentation; cultural tourism; and professional qualifications. These issues taken together form a comprehensive framework for minimizing the negative impacts of modern uses while preserving the site's authenticity and functional vitality. The study concludes that operationalizing these guidelines allows the site to remain preserved and accessible to future generations. The proposed approach represents integrating sustainable cultural programming into the ongoing management of archaeological sites.*

**Keywords:** Cultural Heritage; Management of archeological sites; Risk assessment; Event tourism; ICOMOS guidelines; Festival tourism; Ancient places of performance

### Introduction

Cultural tourism involves experiencing the arts, traditions, and lifestyles. It includes tangible elements such as museums and monuments, as well as intangible elements such as festivals, events, and everyday cultural practices [1]. While archaeological sites are increasingly utilized for tourism purposes due to their cultural, historical, and economic significance, cultural festivals are among the most widespread events held at these sites. This usage makes cultural festivals a valuable context for creating memorable experiences while supporting cultural values. Cultural festivals highlight the unique historical and cultural features of the archaeological sites, enhancing their significance and increasing their popularity [2]. Additionally, festivals serve as catalysts for local economic sustainability. This economic revitalization includes increased

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property values, improved business location opportunities, and the generation of new employment [3].

Although the socio-economic benefits of cultural festivals are recognized, cultural festivals also pose serious threats to the physical fabric of archeological sites. These threats cause physical damage, negative environmental impacts, and challenges for tourism management. Poor management of compatible use can lead to insufficient protection measures, exacerbating the risks of damage and degradation to the sites. Therefore, guidelines for mitigation measures are needed to preserve the site's physical fabric, its significant architectural features, and its values in order to prolong its life for future generations. These operational guidelines encompass a range of strategies to reduce risks and enhance resilience against natural and human-induced threats posed by hosting festivals at archeological sites.

The Jerash archaeological site in Jordan is one of the most remarkable remnants of the ancient Roman city. The site's well-preserved condition led to its selection as the central venue for the Jerash Festival of Culture and Arts, one of Jordan's most celebrated cultural events since its inception in 1981. The festival transforms the site into one of the world's most vibrant and high-profile archaeological settings. However, despite the cultural and economic value of the festival, it also affects the physical fabric of the Jerash site, raising concerns about the long-term preservation of the site. Since each site has its particularity, this study aims to propose mitigation measure guidelines for the Jerash Festival as a modern use to ensure the continued preservation of the Jerash archaeological site. The guidelines were developed after an in-depth review of relevant international conservation charters and reinforced through field-based diagnostic assessments.

## Cultural Festivals in Archeological Sites

### *Historical Background*

In ancient times, festivals emerged from the cultural and religious practices of early tribes, often aligned with significant calendar dates, specific seasons, and recognized sites [4, 5]. Over time, as societies progressed culturally, festivals evolved and diversified in both form and purpose [6]. Today, cultural festivals have shifted toward contemporary leisure and entertainment experiences while drawing on historical settings [7]. They host diverse activities, such as music, performing arts, food, rituals, and crafts [8], and are increasingly reviving heritage places worldwide. For example, the *Athens-Epidaurus Festival (Greece)* animates ancient theaters with drama and music. Similarly, the *Aspendos International Opera and Ballet Festival (Turkey)* uses an ancient Roman theater for concerts.

Additionally, the *Baalbeck International Festival (Lebanon)* and the *Bosra Festival (Syria)* feature performances in the Roman temple and the Roman amphitheater, respectively. The *International Festival of Carthage (Tunisia)* uses ancient Roman theaters for concerts. The *Aida Opera (Egypt)* stages grand operatic performances near the Giza Pyramids, introducing classical music. The *Janadriyah Festival (Saudi Arabia)* and *Al Hosn Festival (UAE)* highlight traditional crafts, storytelling, and cultural performances in historical settings. The *Syrian Heritage Song Festival (Syria)*, held at Al-Azm Palace, revives the traditional Syrian music.

As shown in the previous examples, ancient theaters and amphitheaters are increasingly used to host festivals due to their cultural, historical, and economic significance. In the past, festivals in ancient Greece and subsequently in Rome were deeply rooted in religious and seasonal rituals as part of civic celebrations that featured music, drama, dance, athletic competitions, and public processions, held in theaters and amphitheaters [11, 12]. These venues served as dynamic public spaces designed for collective cultural experiences. The use of archaeological sites for modern theatrical performances began in Italy in the early 20th century. The first such event occurred at the Roman Theatre in Fiesole, where *Sophocles' Oedipus the King* was staged on April 20, 1911. This pioneering example gradually encouraged the use of

Greek and Roman theaters and amphitheaters for cultural events [13]. Such events, including festivals, not only reinstate these sites' original function as dynamic spaces for artistic performance and recreational enjoyment but also revive their historical memory and cultural significance.

At archaeological sites, cultural festivals serve as dynamic tools as custodians of traditions [8]. Cultural festivals play a key role in fostering “inter-generational dialogue,” communicating heritage knowledge while promoting heritage appreciation [7, 8]. Here, festival activities encourage protective behavior and deepen cultural connections between heritage and community, strengthening identity and resilience against cultural loss [14, 15].

While cultural festivals celebrate and preserve community heritage, they are also valued for their potential to attract tourism and revitalize the local economy [4, 16]. Festivals play a vital role in tourism by drawing visitors to specific destinations, thereby reducing seasonal tourism gaps, supporting place marketing through shaping destination image and branding, energizing attractions and public spaces, and acting as catalysts for urban and economic development [17].

Festivals have positive social, cultural, and socio-economic impacts on archeological sites and their surrounding community. However, they also pose significant risks to the physical fabric and architectural integrity of those ancient places. Festivals at archeological sites can cause severe damage due to uncontrolled visitor influx, improper use, and inadequate planning. Wear and tear from foot traffic, heavy equipment, and non-removable installations threaten the site's physical integrity. Technical elements such as sound systems and lighting may also harm fragile structures [18-20]. Without proper guidelines and monitoring, festivals can compromise the authenticity and longevity of these irreplaceable cultural landmarks.

#### ***The Need for Operational Guidelines***

Hosting festivals at archaeological sites can generate economic benefits for local communities and help preserve community heritage. However, without adequate oversight and the application of appropriate use guidelines, cultural festival activities may hasten the deterioration of these delicate sites. When modern uses are mismanaged, they pose significant risks to the fragile physical integrity of these ancient structures [21]. To mitigate the negative impacts of festivals in archaeological sites, a set of operational guidelines has been developed to outline acceptable practices and considerations for festivals within archaeological sites. These guidelines were designed after reviewing the following related international charters.

*“The ICOMOS Charter for the Protection and Management of the Archaeological Heritage”* (1990) is the first international guideline that outlines principles for safeguarding archaeological heritage worldwide. It emphasizes the need for conservation, responsible management, and public engagement with archaeological resources [22]. Another key document is the *“Segesta Declaration”* (1995). It is a policy statement that focuses on the conservation and sustainable management of archaeological heritage, aimed at modern development pressures [23]. The *“Verona Charter on the Use of Ancient Places of Performance”* (1997) was developed to recognize the growing demand to use historic venues for contemporary cultural events. It provides practical guidelines for the use, conservation, and management of ancient theaters, amphitheaters, and other performance spaces [18]. The *“Siracusa Charter for the Conservation, Fruition and Management of the Ancient Theatrical Architectures”* (2004) is one of the most updated documents on the conservation and management of ancient theaters. Sicilian authorities launched the charter following an international conference in Syracuse, focusing on sustainable planning and the use of Mediterranean theatrical heritage [19].

A thorough examination of these guidelines reveals that seven key issues must be considered for modern uses in ancient places. These issues are site management plan, conservation and preservation, modern utilization, safety and security, interpretation, promotion, and presentation of the site, cultural tourism, and qualifications and working people. These issues will serve as the framework for proposing guidelines for mitigation measures for the Jerash Festival in the context of the Jerash archaeological site in Jordan.

## Jerash Festival of Culture and Arts

The Jerash Festival of Culture and Arts is one of Jordan's most celebrated cultural events, held annually in the ancient Roman city of Jerash since its inception in 1981. Located approximately 48 kilometers north of Amman, Jerash is renowned for its exceptionally well-preserved Greco-Roman ruins, including colonnaded streets, temples, and particularly its two magnificent Roman theaters—the North and South Theaters—which serve as key venues during the festival [24].

The festival showcases various performances ranging from classical Arabic music and folk dances to international concerts, poetry readings, and theatrical acts. Artists and visitors from across the globe participate, making it a hub for cultural exchange and a platform for Jordanian heritage promotion [25]. Its setting within the ancient theaters provides a unique blend of past and present, emphasizing the enduring relevance of historical architecture as a dynamic cultural space [26].

Positively, the festival contributes significantly to the local economy and cultural awareness. Increased tourism during the event boosts revenue for local businesses and provides employment opportunities [27]. Additionally, the visibility of Jerash's ancient monuments through such events has promoted efforts in heritage preservation and international recognition [26].

However, the festival is not without challenges. The influx of large crowds during the performance puts pressure on the fragile ancient structures. High foot traffic, lighting, and sound systems can accelerate structural wear and degrade the site's authenticity [26]. Environmental concerns, including waste management and noise pollution, also arise during the festival days. While some mitigation strategies—such as crowd control and scheduled maintenance—have been implemented, ongoing conservation efforts remain critical to sustaining the site's integrity [28].

Tourism in Jerash presents a complex balance of economic benefits and environmental and social concerns. Festival activities increase waste production, soil compaction, and noise pollution, potentially harming both built and natural heritage [28]. Littering and improper waste disposal contribute to visual pollution and chemical deterioration, while technical installations such as lighting and sound systems can cause thermal and vibrational stress on vulnerable structures [28].

In conclusion, the Jerash Festival exemplifies both the opportunities and threats accompanying modern use of archaeological sites. With proper planning, stakeholder engagement, and adaptive conservation strategies, cultural festivals can continue to serve as meaningful tools for cultural preservation and sustainable tourism development [25, 28].

## Mitigation Measure Considerations Needed for Jerash Festival

Recommended guidelines were set after analyzing related international conservation charters. These guidelines address the main issues when using the Jerash archaeological site for festivals. These issues are site management plan; conservation and preservation; modern utilization; safety and security; interpretation, promotion, and presentation of the site; cultural tourism; and professional qualifications.

### *Site Management Plan*

Heritage site management has been defined as “the way that those responsible for the site choose to use it, exploit it, or conserve it” [29]. Many heritage sites are valued for their cultural and educational significance and their vital role as symbols of local, national, or ethnic identity and pride. Some heritage sites are primarily viewed as leisure areas, while others are expected to offer economic benefits to communities, regions, or nations [30].

A heritage manager needs to understand who cares about the place's conservation and what their specific interpretations are. This understanding will assist a manager in determining how to allocate resources for conservation, how to focus archaeological or historical research, and which

aspects of a site to explain and present to the public. Such knowledge also enables site managers to more effectively communicate the significance of a heritage place and to provide more vigorous, evidence-based justification for its conservation and continued public support [31].

Many issues need to be considered when discussing the site management plan. These are

(i) Decisions made by a heritage manager should be informed by a clear understanding of the significance of the site, why it merits conservation, and what its loss would imply for society (Segesta Declaration, 1995, Article 3).

(ii) Heritage managers are required to make strategic decisions in allocating constrained resources—such as funding, personnel, and political capital—to ensure that the most significant heritage assets are effectively preserved, managed, and utilized in an optimal manner (Segesta Declaration, 1995, Article 1; Syracuse Charter, 2005, Annex II) (Although the official document of the charter uses the Italian spelling “Siracusa Charter,” the authors adopt the English version “Syracuse Charter,” as it is more widely used in international academic and professional discourse.).

(iii) Heritage managers must set up a systematic administrative procedure with clear definitions of job descriptions and duties. To ensure effective management, it is essential to employ highly qualified and specialized staff. Their knowledge and skills must also be regularly updated (Management ICOMOS Charter, 1990, Article 8; Syracuse Charter, 2005, Annex I; Syracuse Charter, 2005, Annex III; Syracuse Charter, 2005, Annex IV).

(iv) Heritage managers must prepare a conservation plan for their site, which includes a short-term and long-term plan (Management ICOMOS Charter, 1990, Article 2; Management ICOMOS Charter, 1990, Article 6; Segesta Declaration, 1995, Article 1; Syracuse Charter, 2005, Annex II).

(v) Heritage managers must pay attention to the importance of the presentation, interpretation, and promotion programs that enhance the educational potential of visitors' experience by providing on-site information. Interpretation programs usually include a wide range of multimedia and facilities such as interpretation centers, orientation centers, signage, three-dimensional models, interactive exhibits, and publications (posters, books, information cards, brochures, and checklists) (Management ICOMOS Charter, 1990, Article 7; Segesta Declaration, 1995, Article 2; Syracuse Charter, 2005, Annex I; Syracuse Charter, 2005, Annex III; Syracuse Charter, 2005, Annex IV).

(vi) “Restrictions due to safety factors or maintenance requirements: public access to ancient places of performance must be promoted by offering visitors aids to [for better] understanding and interpretation.” (Segesta Declaration, 1995, Article 3; Verona Charter, 1997, Article 3).

(vii) “[S]trategies must bear in mind the monument's saturation threshold and seek to redirect tourist flows to alternative sites in need of further development.” (Fig. 1) (Verona Charter, 1997, Article 5).

(viii) Heritage managers must pay attention to the importance of awareness among the public, users, national and local authorities, and elected representatives to develop the knowledge and appreciation of heritage. This could be done through organizing regular, well-structured events, sessions, workshops, and conferences, as well as maps, brochures, and site visits for locals and youth (Fig. 2) (Segesta Declaration, 1995, Article 2; Segesta Declaration, 1995, Article 3).

(ix) Site regulations regarding how the theater could be used for modern utilities should be organized and controlled by the manager (Fig. 3) (Segesta Declaration, 1995, Article 3).

(x) “[S]ystematic co-operation must be arranged between the municipalities which own the sites, those responsible for conservation, and the organizers of performances, and regulations should be adopted for the use of each site specifying minimum rules for their proper use” (Management ICOMOS Charter, 1990, Article; Segesta Declaration, 1995, Article 3; Verona Charter, 1997, Article 4; Syracuse Charter, 2005, Annex IV).

(xi) Heritage managers must pay attention to creating a balance between their interventions and the users' and visitors' expectations. Interventions should consider the safety

and perception of visitors or users and should lead to better interpretation of the site (Verona Charter, 1997, Article 4; Syracuse Charter, 2005, Annex III).



Fig. 1. Many tourists visit the theatre during the festival



Fig. 2. School trips bringing students to the Jerash site



Fig. 3. Improper behavior by individuals

### ***Conservation and Preservation***

Conservation could be defined as “a group of direct and indirect actions, curative and preventive, to save the physical fabric and its significant architectural features and values from natural and human causes of decay and to prolong its life for future generations” [35, 36]. Direct actions are all actions implemented directly on the physical fabric of the building or monument as curative interventions, such as preservation, restoration, consolidation, reconstruction, rehabilitation, maintenance, repair, and adaptive reuse [37]. Indirect actions are the procedures implemented to prevent the buildings and monuments from any expected decay. These procedures include covering structures with shelters to protect them from sunshine, rain, and wind [38]; identification and evaluation of historic areas and actions that lead to a management program for historic places and their surroundings; urban and regional planning as a basis for large-scale action that leads to a legislative framework for this protection; the creation of categories of listed buildings to be protected by law [39]; and the social studies of local communities of historic areas.

As for the case of the Jerash archeological site, and to protect this site and prolong its life for future generations, the following guidelines are recommended:

(i) A conservation plan for ancient theaters and structures in the site should be prepared (Verona Charter, 1997, Article 1; Syracuse Charter, 2005, Annex II) in which all the conservation interventions should:

- “Be limited to the minimum indispensable.”
- “Be reversible.”
- “Be traceable.”
- “Have no negative perceptive impact on the monument.”
- “Not deteriorate or damage the existing stonework in any way.”
- “Not disfigure in any way the original layout of the theater’s sloping equipment and the water system below the cavea.”
- “Undergone no restoration that will completely rebuild some parts of the structure, aimed at favoring the needs of tourists or theatrical use.”

(ii) There should be government control over the management of the historical areas, to ensure their protection, and activate and upgrade the legislative framework to consider the importance and protection of these ancient monuments and sites (Management ICOMOS Charter, 1990, Article 2: Management). ICOMOS Charter, 1990, Article 3; Segesta Declaration, 1995, Article 1).

(iii) Appropriate conservation strategies to conserve ancient places of performance are needed, and “any changes made to the heritage must respect the principle of reversibility” (Verona Charter, 1997, Article 1).

(iv) Continuing field observations and technical studies should be carried out regularly to understand better the mechanism of deterioration resulting from the modern utilities of the site (Segesta Declaration, 1995, Article 1; Syracuse Charter, 2005, Annex I).

(v) Regular reports with monitoring and inspection should be done properly (Management ICOMOS Charter, 1990, Article 3; Syracuse Charter, 2005, Annex I).

(vi) Conducting environmental studies in the region of Jerash city (Segesta Declaration, 1995, Article 1). The purpose of the environmental studies is:

- to promote environmental protection and support sustainable development.
- to integrate environmental protection and economic decisions at the earliest stages of planning an activity.
- to identify possible environmental, social, economic, and cultural impacts of proposed activities and to assess plans to mitigate any adverse impacts resulting from the proposed activity, and
- to allow the involvement of the public, the government department, and government agencies in the review of the proposed activities.

(vii) All “[m]aintenance, reinforcement, and restoration work carried out on ancient places of performance must be based on sufficient scientific documentation and thorough archaeological analysis” using new technologies such as 3D laser scanners, photogrammetry, GPS total stations, and GIS applications, including “inventories [that] constitute primary resource databases for scientific study and research” (Management ICOMOS Charter, 1990, Article 4; Segesta Declaration, 1995, Article 1; Verona Charter, 1997, Appendix I; Syracuse Charter, 2005, Annex I).

(viii) Adaptation of information technologies to research monuments and their history, assist in conservation and restoration, disseminate information, education, and heighten public awareness (Management ICOMOS Charter, 1990, Article 4; Verona Charter, 1997, Article 2).

(ix) Training for young staff to engage in conservation work (Segesta Declaration, 1995, Article 2; Syracuse Charter, 2005, Annex II). Active training programs in conservation techniques and other skills needed for the activities of the new proposed projects would make it possible for the project to have the following positive results on other variables:

- Make it possible for some local people to get temporary and/or permanent jobs in the conservation and maintenance of these projects.
- Activate the participation of local people in the new activities provided by the projects.
- Increase awareness and consciousness among the local people of their rich heritage.
- Increase the pride of local people in their traditional heritage.
- Attract more visitors to the area.

(x) Training programs in proper and advanced conservation treatments and making it possible to define clearly the conservation interventions needed (Management ICOMOS Charter, 1990, Article 8; Segesta Declaration, 1995, Article 1; Verona Charter, 1997, Article 6; Syracuse Charter, 2005, Annex II).

(xi) The principles of “*the International Charter for the Conservation and Restoration of Monuments and Sites*” (Venice Charter, ICOMOS, 1964) should be respected (Management ICOMOS Charter, 1990, Article 6; Management ICOMOS Charter, 1990, Article 9; Segesta Declaration, 1995, Article 1; Syracuse Charter, 2005, Annex II).

(xii) Activate site safeguarding of ancient theaters (Syracuse Charter, 2005, Annex II).

(xiii) Revitalization of theaters by using them (Verona Charter, 1997, Article 4).

#### **Modern Utilization**

The sustained safeguarding and preservation of cultural heritage sites, including ancient theaters, can significantly contribute to social, economic, cultural, and tourism development strategies in the Eastern Mediterranean [21]. A comprehensive, multidisciplinary approach is essential to achieve sustainable development that harmonizes the requirements of the audience, visitors, and local community with the necessities of theaters across the entire site [40]. Contemporary use of ancient theaters must remain aligned with their historical function and should promote scholarly investigation into how current events impact these structures (Syracuse Charter, 2005, Annex II). In addition, strengthening the physical and interpretive aspects of a theater’s heritage can stimulate audience engagement, enabling the site to serve as both an educational resource for future generations and a tangible record of historical continuity (Syracuse Charter, 2005, Annex III).

In this regard, the following issues should be considered:

(i) “[Design] circuits which follow the paths used in ancient times, so that the public can discover the sites gradually” (Verona Charter, 1997, Appendix I).

(ii) Provide aids with a better understanding of the monument, in the form of brochures, signs, and audio guide tapes, especially the access points (Fig. 4) (Verona Charter, 1997, Article 4).



**Fig. 4.** Access routes of the South theater of Jerash

(iii) “A systematic co-operation must be arranged between the authorities who own the sites, those responsible for conservation and the organizers of performances, and regulations should be adopted for the use of each site specifying a minimum rule for their proper use” (Fig. 5) (Segesta Declaration, 1995, Article 3; Syracuse Charter, 2005, Annex III).



Fig. 5. Catering school activity in the South theatre

(iv) If places of performance are to be made accessible to the broader public, appropriate measures must be implemented to mitigate the potential risks associated with excessive visitor numbers (Verona Charter, 1997, Appendix I). Such as:

- “[I]nforming the public of the weakness of the sites by means of signs and documents.”
- “[B]uilding attractive paths that steer the public away from fragile areas. In some cases, access to sensitive or dangerous areas will have to be prohibited.”
- “[P]roviding appropriate facilities (e.g., seats, rubbish bins, toilets, access to water, etc.) which reduce the risk of pollution and damage.”
- “Use of new information technology [to] facilitate the tasks of recording, analyzing, scheduling, and monitoring work carried out on the sites by professionals, and may also help to relieve the pressure of excessive numbers of visitors.”
- Improving public understanding of the site and its significance.

(v) New Additions (Changing rooms backstage) should be a movable structure, with a suitable appearance in the cluster context, and should avoid any visual pollution (Fig. 6a) (Segesta Declaration, 1995, Article 3; Verona Charter, 1997, Article 4; Syracuse Charter, 2005, Annex I).

(vi) New additions (electrical wires and lighting) should be movable, suitable in appearance for the cultural context, and of the low thermal effects type (Fig. 6b) (Segesta Declaration, 1995, Article 3; Verona Charter, 1997, Article 4; Syracuse Charter, 2005, Annex III).



Fig. 6. (a) Movable changing room installed backstage.  
(b) Electrical additions are placed directly on the stone structure

### ***Safety and Security***

Ensuring safety and security is fundamental to delivering high-quality tourism experiences. Unlike other economic sectors, the viability of a tourism destination is particularly dependent on its ability to offer visitors a safe and secure environment. Tourism is often viewed as a driver of peace and mutual understanding. However, it is also highly vulnerable to war and political unrest, usually becoming one of the first sectors to suffer. As a result, it is increasingly crucial for destination marketing organizations to prove that their locations are safe for visitors. Negative media coverage can also shape tourist perceptions, even when it does not reflect the real situation on the ground [42].

Using archaeological sites as venues for cultural performances is widespread, with the Jerash Festival as a prominent example. Generally, performances in ancient theaters and amphitheaters are accepted and actively promoted, as they help attract visitors, generate economic benefits, and reinforce a sense of historical continuity [43]. In Europe, this approach was supported by the 1995 Segesta Declaration, officially endorsed in 1997, which called for developing a charter to guide the protection, enhancement, and appropriate contemporary use of these ancient performance spaces and archaeological sites. Given this context, ensuring safety and security during events held in historic theaters must be a top priority for site managers.

In this regard, the following issues should be considered:

(i) Appropriate safety measures must be tailored to the specific layout and location of the monument. These measures should not only address physical threats such as fire but also focus on managing crowd panic, which may pose an even greater risk during emergencies involving large numbers of visitors or spectators (Verona Charter, 1997, Appendix I). Steps will therefore have to be taken to:

- “Define a safety zone around the theater or site that prevents random parking and allows the police and emergency services to circulate freely.”
- Show clearly the accessibility (entrances and exits) of the theater.
- “[D]raw up specific safety standards for each site. Such standards must define [the] maximum capacity in terms of the number of visitors or spectators and public safety measures, including hazard prevention, medical treatment, and emergency facilities.”

(ii) In the case of Jerash theaters, there is a need for external pavements with stairs and good landscape to activate the entrances and exits of the theaters, which will help to ensure the users’ and visitors’ safety (Syracuse Charter, 2005, Annex III).

(iii) Regular maintenance and vegetation removal on walls and structures are needed (Syracuse Charter, 2005, Annex III).

(iv) There is a need for conservation and emergency plans (activating the access and exits of the theatre) and visitor and user guidelines (Segesta Declaration, 1995, Article 3).

(v) There is a need for festival and event guidelines that control the maximum audience size (capacity building). This will help to protect the site and ensure the safety and security of users and visitors (Segesta Declaration, 1995, Article 3).

(vi) Site management plans should include guidelines for modern utilization for the safety of tourists and monuments and control the tourists’ behaviors with active site monitoring (Syracuse Charter, 2005, Annex III).

(vii) Facilities and supplies for the activities should include the security of users and visitors; these include barriers, safe paths/handrails, internal services, and external services (Syracuse Charter, 2005, Annex III).

### ***Interpretation, Promotion, and Presentation***

Interpretation programs significantly enrich the educational value of the visitor experience by delivering on-site information through various media and facilities, including signage, interactive displays, and dedicated interpretation centers. Such programs are commonly implemented at natural and cultural heritage sites that attract public interest. Research has shown

that practical interpretation can impact meaningfully, fostering greater public awareness and long-term support for heritage conservation efforts [44].

In this regard, the following issues should be considered:

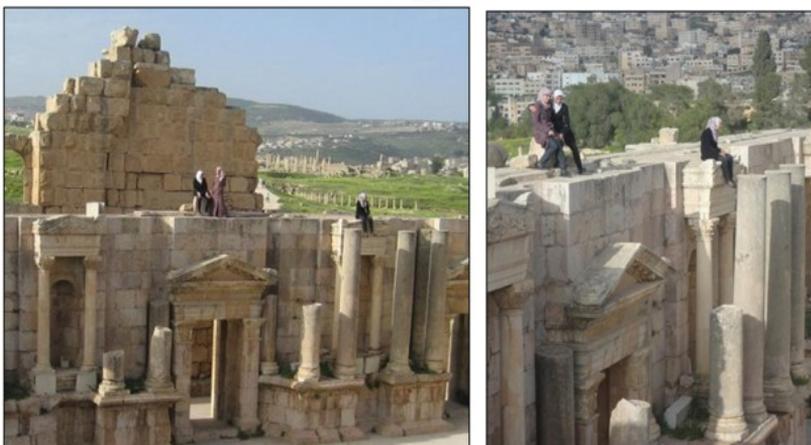
- (i) “[D]esigning circuits which follow the paths used in ancient times, so that the public are able to discover the sites gradually” (Verona Charter, 1997, Appendix I).
- (ii) “[P]roviding aids to understanding the remains, in the form of brochures, audio guide tapes, and guidebooks” (Verona Charter, 1997, Appendix I; Syracuse Charter, 2005, Annex I).
- (iii) “[O]pening a visitors’ information center, strategically located at the main entrance to the site, to explain to visitors how to interpret the site” (Verona Charter, 1997, Appendix I; Syracuse Charter, 2005, Annex I).
- (iv) Raising the historical and architectural significance (Management ICOMOS Charter 1990, Article 7; Syracuse Charter, 2005, Annex I).
- (v) “[S]ites must be able to offer visitor-friendly amenities and equipment, such as public telephones, credit card facilities, information display units, and signs in several languages” (Verona Charter, 1997, Appendix I).
- (vi) Facilities for visitors with disabilities should be designed to closely match those provided for the general public (Verona Charter, 1997, Appendix I).
- (vii) Each time a performance is held at an ancient site, the particular logistical needs of the performers must be carefully addressed (Verona Charter, 1997, Appendix I).
- (viii) Employees are required to undergo ongoing training and should be appropriately qualified (Verona Charter, 1997, Appendix I; Management ICOMOS Charter, 1990, Article 8).

### ***Cultural Tourism***

Cultural tourism is increasingly recognized as a valuable asset in the economies of several nations, including Jordan. It produces various beneficial effects across economic, social, environmental, and political domains [1]. At the Jerash site, the currently realized or anticipated benefits are closely linked to various values, including social, scientific, spiritual, aesthetic, and economic dimensions. Among these values, the site’s scientific and aesthetic values receive legal protection under the Jordanian Law of Antiquities. These values can be considered the site’s fundamental heritage values. The economic significance of the site as a tourist attraction is directly rooted in and derived from these core heritage values.

In this respect, the following guidelines should be considered:

- (i) The manager should control the tourists’ behavior (Fig. 7) (Syracuse Charter, 2005, Annex III).



**Fig. 7.** Improper behavior threatens visitors' safety. (Photos taken by authors)

(ii) Regulations and manuals for the modern utilization of theaters regarding the safety of users and monuments should be designed (Syracuse Charter, 2005, Annex III).

(iii) Activating the site monitoring. Regular tourism impact studies are essential to obtain information about the real needs of tourists as a demand input (Verona Charter, 1997, Article 4).

(iv) Upgrading the interpretation and presentation of the site for the public. Conservation planning for potential tourism heritage sites should seek to undertake a careful but creative analysis of the site to identify hidden themes and characteristics for interpretation (Verona Charter, 1997, Article 3).

(v) Conservation of historic fabric is essential, but many opportunities arise for successfully managing the interaction between tourism and conservation (Verona Charter, 1997, Article 4).

(vi) The ICOMOS Charter of Cultural Tourism (1976) recommends that organizations responsible for tourism and the preservation of natural and monumental heritage should incorporate cultural assets into the social and economic goals and resource planning frameworks of their respective states.

(vii) Tour operators should establish specialized training programs for staff involved in promoting and facilitating cultural tourism. Additionally, educational initiatives aimed at fostering understanding and respect for monuments and heritage sites should be integrated into school and university curricula (Verona Charter, 1997, Article 6).

(viii) Restrictions due to safety factors or maintenance requirements (Fig. 11), public access to ancient places of performance must be promoted by offering visitors aids to understanding and interpretation (Verona Charter, 1997, Article 3; Syracuse Charter, 2005, Annex III).

(ix) Garcia Nart [45] (1992) presented six main actions that should be considered within the strategy for integration between tourism and the protection of the architectural heritage.

- Establishment of a tourist development-monitoring unit within the regional planning framework that looks after the needs of tourism and its relation with the different variables of the region's planning system, including cultural heritage.
- Integration of tourism planning with managing and planning the cultural heritage.
- Continuous control of the impacts of tourism on heritage sites should be maintained through follow-up statistical studies and data concerning tourism.
- There should be a kind of management that lets the participation of the local community become more active in protecting their heritage, not only to make use of it but also to save it.
- Sharing responsibility and coordination between the different authorities involved with planning and controlling the urban environment and tourism, and letting the private sector also have a role in the operational stage.
- Information and consciousness-raising programs are needed to create awareness of culture, people, and heritage.

### ***Professional Qualifications***

Recruiting the most qualified employees remains a continuous challenge for every manager, supervisor, and human resources professional. Therefore, a complete employee training program should incorporate a structured onboarding program for new hires. This program must clearly outline job expectations and essential performance skills to perform the role effectively. Such training offers new employees a foundational understanding of their responsibilities and clarifies how their position aligns with the organization's overall structure, vision, and mission [46].

In this regard, the following issues should be considered:

(i) Building up a good staff of the different specialties needed (Management ICOMOS Charter, 1990, Article 8).

(ii) Regular training programs should be conducted to upgrade staff skills (Management ICOMOS Charter, 1990, Article 8; Verona Charter, 1997, Article 6).

(iii) "Networking should be developed to foster the exchange of scientific information" between staff, and "a system for pooling data and coordinating initiatives should be adopted ...

between intellectual and material efforts to promote ancient places of performance as part of the heritage” (Verona Charter, 1997, Article 6).

## Conclusion

This study aimed to minimize the adverse impacts of modern uses at the Jerash archaeological site by proposing a set of operational guidelines tailored for site managers hosting cultural events. Focusing on the Jerash Festival—one of the most significant cultural events in Jordan—the research identified seven key domains essential for effective modern uses management: site management plan; conservation and preservation; modern utilization; safety and security; interpretation, promotion, and presentation; cultural tourism; and professional qualifications.

The proposed guidelines are context-sensitive, acknowledging the unique architectural, historical, and cultural characteristics of the Jerash archaeological site. They serve as a practical tool for heritage managers in Jordan, supporting the development of more resilient and sustainable cultural heritage management policies. By mitigating the physical and environmental risks associated with modern events, these guidelines aim to preserve the site’s integrity for future generations, maintain its touristic appeal, and foster the adoption of sustainable heritage tourism practices.

Future research should expand the scope of proposing mitigation measure guidelines to include other festivals and archaeological sites in Jordan. These guidelines will support the development of a comprehensive national framework for managing modern uses within heritage contexts. In an era of rising economic pressures and rapid urban growth, protecting archaeological sites while addressing contemporary cultural needs is essential. This approach serves as a key strategy for achieving integrated cultural, social, and economic revitalization. When modern uses are appropriately managed, archeological sites can act as living heritage spaces, strengthening local identity and contributing meaningfully to community development.

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