Criteria for the Assessment of the Modern Use of Ancient Theatres and Odea

Naif Haddad

ERATO is a research project entitled ‘Identification, Evaluation and Revival of the Acoustical Heritage of Ancient Theatres and Odea’ that was implemented within the Fifth Framework INCO-MED Programme of the European Commission, under the thematic title ‘Preserving and Using Cultural Heritage’. The project was designed to identify virtual restoration and the revival of the acoustical and architectural heritage. The project also addressed the issue of establishing criteria for the assessment of the modern use of ancient theatres and odea. Ancient theatres are threatened by erosion through time and improper use. The desire to use ancient sites with theatres and odea for modern activities is very tempting for modern societies. In fact, reuse is currently used as a means of conservation as well as justification for the enormous costs that restoration and conservation entail. However, decision makers and those involved with conservation are generally more conservative and reluctant to encourage reuse. It is important to realise that we are dealing with man-made space designed for dialogue between audience and actors and hence criteria should be developed to enhance consistent and conscious decisions aimed at the conservation of such spaces. Criteria should be sought that consider several parameters related to human comfort, besides architecture and acoustic qualities. This paper discusses and evaluates, in general, the criteria relating to the modern use of ancient theatres and odea through understanding their value, ancient and current use, kinds of contemporary use, causes of deterioration and threats, and their cultural significance, while reviewing the main issues related to the international charters on the use of ancient places of performance.

Keywords: Ancient Theatres and Odea; Cultural Significance; Modern Use; International Charters
Introduction

Cultural heritage sites have an intrinsic value for all people as an important basis for cultural diversity and social development. The long-term protection and conservation of living cultures, heritage places, collections, their physical and ecological integrity and their environmental context should be an essential component of social, economic, political, legislative, cultural and tourism development policies.¹

The main value of theatres and odeas can be identified from their cultural value: this identifies the heritage of these monuments and their significance, the character that has shaped their identity and gives clear interpretation for their relationship with other buildings on the site. The artistic value is derived from the importance of their design and the significance of their structure and architectural concept. The economic value can be understood as the benefit of saving the built heritage through reuse for tourism, modern needs, and pleasure, within the cultural context.

The functional value can be understood through the continuity of the traditional function of the historic structures, which strengthens its value in terms of reading and interpreting their history; it also has an effect on their economic value. The educational value of these monuments as documents of history could be a source of information for future generations.

While they are part of the past, it is essential to give everyone an opportunity to read and understand their history, and enjoy it. Furthermore, the aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, the scale, the material, the fabric, and the acoustics associated with their use. However, as places of performance, some of the ancient theatres and odeas are still in use today, so it is important to understand and define their use in antiquity and in modern times.

Ancient and Modern Use of Ancient Theatres and Odea

Use encompasses the utilisation functions of a place, as well as the activities and practices that may occur at the place.² In relation to the ancient use of theatres and odeas, it is a fact that in every historical epoch all theatres, both outdoor and roofed (odeas), have been used for many purposes. These are categorised technologically by Izenour³ as being either multi-purpose or multiple-use:

1) *Multi-purpose theatre*: ‘a multi purpose theatre is defined as a facility for public assembly incorporating wide latitude of design, flexibility, and is intended to accommodate a variety of public events as disparate as athletics and the performing arts’. A multi-purpose theatre is an outdoor open-air theatre.

2) *Multiple-use theatre*: ‘a multiple-use theatre is more narrowly defined as an exclusively theatrical-type facility for public performance and assembly in which design and engineering flexibility is restricted to forensic activities (public speaking), staged dramatic performances, and the performance of music—that is the performing arts’. A multiple-use theatre is defined as the Roman *theatrum tectum/odium*.⁴
Thus all theatres, both outdoor and roofed (odea), have been used for many purposes other than those for which they were allegedly intended by the designers and builders.

The most important issue in the modern/current use of ancient theatres and odeas is how to create a sense of space in the theatre, where the acoustical reflections and the visual imagery are important components in creating this sense of space (all auditoria rely on both visual and acoustic stimulation). In the ancient theatres and odeas, we are dealing with Greek, Hellenistic and Roman places of cultural significance. In modern use, the designer has to remain continually aware of the relation he/she is creating between performer and audience, striving to make it as intimate as possible. In fact, ancient theatres and odeas have four main contemporary uses:

1. **Tourism**: the regular use of ancient theatres by visiting the site with a guide who presents an interpretation of the historic site and its value.

2. **Festivals**: several festivals have been affiliated with ancient theatres and odeas such as the Athens festival, the Epidaurus festival in Greece and the Jerash festival in Jordan (see Figures 1 and 2). The Athens festival, which runs from May to September, was founded in 1955 and takes place in the restored Herodes Atticus auditorium, which is used for artistic events. The Epidaurus festival runs from June to August. In 1938, Dimitris Rondiris, as the manager/director of the Greek National Theatre, presented Sophocles’ *Electra* in broad daylight. The success of that experiment gave the green light to the Archaeological Council to move on with the restoration of the theatre, continuing the work of archaeologist Panagis Kavadias, who had discovered the ancient theatre. Kavadias had expressed the hope that his discovery would not become just another archaeological site. This is why he left a provision in his will that the inhabitants of the village of Ligourio, who had done the actual digging with pickaxes and their bare hands that brought to light the stonework of the terraces, should be allowed to attend the performances free of charge. For decades, those villagers were the first critics. This is a good example of local community participation. The Jerash festival in Jordan is an international festival that was launched in 1981. The festival activities are held at various sites within the extensive ruins of ancient Jerash, including the two Roman theatres.

![Figure 1](image-url)  
Left: the Athens festival; centre and right: the Epidaurus festival.
Conferences and receptions: the modern use of the Orange theatre in France\(^8\) (see Figure 2) includes a classical orchestra for conference activities and receptions. This great Roman theatre provides a spectacular setting for the most glamorous receptions.

Virtual reality: another approach to ancient theatres in this digital age is providing them with a virtual life. The use of virtual reality, 3D modelling and animation is important in the interpretation of ancient theatres and their use in ancient times. Such use supports the relationship between public and monument.

Thus, several ancient theatres and odeas are still serving the purpose for which they were designed. The threats caused by the modern use of such sites should be well understood before appropriate criteria are established.

**Human Causes of Deterioration and Threats to Ancient Theatres and Odea**

Since all ancient theatres have their own unique set of conditions, and reuse cannot be separated from the whole ancient/modern context that surrounds them, it is important to make clear that modern use is altogether different from ancient use. When festivals were held in the theatre in a city the size of ancient Athens, the city became the centre of attention, and all normal civic activities came to a halt because a significant proportion of the free population attended the events.

Today, ancient places of performance are a vulnerable resource threatened by the erosion of time and the improper uses to which they are sometimes put. In addition to natural threats (wind, orientation, temperature, rain), there are human threats that can be summarised as follows:

1. Improper modern uses of ancient theatres and odeas as a result of:
   - overloaded capacity, especially when they are used for festivals;
   - the thermal effects of lighting systems, especially when they are used at night: what is important here is that the lighting system should not harm the ancient materials and should adhere to environmentally safe standards;
● noise pollution: especially of modern sound equipment, including the position of loudspeakers and amplifiers, which can harm the ancient materials of the monument;
● air pollution: especially where the theatres and odea exist in a congested urban context.

(2) Growth of uncontrolled tourism and the lack of management in relation to the accessibility and protection of sites containing ancient theatres and odea. Visitors may stray into uncontrolled areas. Visitors often wear inappropriate dress and shoes.

(3) Economic problems that can be seen in the maintenance and public services at the sites of ancient theatres and odea.

(4) Lack of cultural education and public awareness about ancient theatres and odea.

(5) Lack of archaeological and historic research of ancient theatres and odea leading to inappropriate development, since the thematic patterns that could emerge from the research may be useful for the planners.

(6) Absence of a conservation plan, lack of maintenance, poor application of conservation principles and a lack of skilled people can cause further decay to the infrastructure of the historic theatres and odea.

(7) Lack of a scientific approach and methodology in the diagnosis and conservation of stone.

(8) Lack of documentation of environmental conditions (temperature variations, air pollutant levels, salinity of soil, wind, etc.).

(9) Absence of legislation to protect the historic ancient theatres and odea, including special technical regulations.

What is the Cultural Significance of the Ancient Theatres and Odea?

It is important when developing the necessary criteria to ask what is the cultural significance of the ancient theatres and odea. Varying degrees of cultural significance may lead to different conservation strategies. A cautious approach is needed, as the understanding of cultural significance may change. Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects.9

The cultural significance of ancient theatres and odea can be defined in relation to four main issues: as ancient landmarks, their impressive architecture, their acoustic qualities and their use in modern cultural performances:

(1) Ancient landmarks: Greek, Hellenistic and Roman theatres were influenced by a multitude of geographic, climatic, political, economic, social and cultural factors. Every city had to have its public entertainments, so a theatre and later an amphitheatre were an important part of the original planning and later expansion of Roman cities. Theatrical presentations were considered a big event. The importance of the city was reflected in the number and scale of its theatres. As ancient cultural
landmarks, they form a heritage encompassing not only the monuments of Greco-Roman times but also the history of the alterations made to them, the successive uses to which they were put, and the cultural and artistic traditions associated with them. In general, the location of theatres in the city is directly related to the main elements forming the urban fabric, such as the cardo and decumanus, the forum and the temples. The major locations for theatres tended to be around temples. This relationship between theatre and temple emphasised the spatial and sequential concept of the dramatic play in the Greek and Hellenistic period.

(2) **Impressive architecture:** the theatre is a specialised category of buildings designed for public assembly and performance. Initially, both Greek and Roman theatres were improvised outdoor affairs constructed of timber that over time became architecturally formalised and were constructed of stone and brick masonry. A smaller but still more specialised type of theatre building identified by the generic Latin term *theatrum tectum* (roofed theatre) was being developed concurrently with the larger outdoor theatres.

The theatre, in its architectural design, reflected the actual social structure of the society and was constructed according to the population of the city. There is a connection between the function, location and size of the different theatres. The way theatres were constructed, their architectural planning, and technical execution all demonstrate a high degree of excellence in virtually all aspects. Engineering and architectural problems encountered in erecting a theatre were surely far more complex than was the case in other public buildings. Each theatre posed its own problems which typically arose from its topography.10

The Greek theatre is part of the natural landscape. The architects created concentric tiers of seats that followed the circular shape of the orchestra and hugged the rising ground of a hillside, following the natural contours of the land. But the Roman structure is imposed on nature. Unlike the Greeks, the Romans typically built their theatres on flat sites, combining the acting and seating areas into a single structure. Spatial planning, the material at hand and the solutions found all point to a form of architectural creativity which was often as original and imaginative as it was practical.

(3) **Acoustic qualities:** one reason for the success of ancient Greek theatres is that they were generally undisturbed by noise when they were in use.11 The overall impression and architectural elements include: colonnade, stage wall and canopy. The stage building reflects sound towards the audience and reinforces the direct sound, thereby improving source loudness and speech intelligibility. The acoustic properties of open-air theatres were mentioned by Vitruvius, but he did not mention anything about the acoustics of roofed theatres. Interestingly, this early documentary shows the author’s overriding concern for acoustics, rather than vision, and this extends even to the rules he gives for seating design.12

Until recently the acoustical criteria were neither observed nor operative within the context of the engineering pre-design relating to the multiple use of ancient theatres. Based on acoustic simulation and auralisation using computer software,13 many previously unanswered questions relating to the good acoustics of such
spaces can be answered by measurement, acoustic simulation and acoustic analysis of the ancient theatre.\(^{14}\) In a more intuitive way, and as an example, in order to answer the question as to what ancient Roman theatres sounded like, auralised sound examples of various theatres can be heard on the ERATO website.\(^{15}\) Such criteria include:

- the clarity of the sound, which should be high and evenly distributed;
- the strength of the sound, which is relatively weak, and decreases with distance;
- the columns on the scene wall, which have a good scattering effect;
- reflections from the orchestra floor and the stage which are observed and also identified as scattered and reverberant;\(^{16}\)
- some reverberation times that are currently considered optimum for speech and vocal music in today’s opera and drama theatres;
- the colonnade (portico) in the upper part of the theatre, which provided a retreat area with shade for the spectators, improves the loudness of the sound in remote seats;\(^{17}\)
- disturbing echoes that can occur in some positions, especially if the scene wall is preserved to its full height.\(^{18}\)

(4) Use in modern cultural performances: a certain number of ancient theatres and odea represent the only monuments from classical antiquity that still serve the purpose for which they were originally designed, namely as places of performance. As we are dealing with ancient vulnerable places, we should ask whether the modern use of ancient theatres and odea gives a new lease of life.

We sometimes need to improve the acoustics of the theatres, especially those theatres and odea that are located in an urban setting and suffer from modern noise. Through this assessment we can determine whether the acoustics are sufficiently good or whether there is a need for amplifiers.

We also need to set a value and give a code for ancient theatre acoustics by establishing a rating system. If we have to use ancient theatres with modern technology, we have to ensure that no harm is done to them. This can be based mainly on a public assessment of sounds, measured in existing theatres, and modified sounds, using different levels of the main acoustical parameters that greatly influence the psycho-acoustical aspects of the proposed sounds.

Charters and the Use of Ancient Places of Performance

documentation, conservation, preservation, interpretation and management, conservation strategies/policies and information technology in the protection of heritage.

The Venice Charter established the principle that the protection of the extant fabric of a cultural heritage site, as in our case (theatres and odeae), is essential to its conservation; the conservation of a monument is always facilitated by making use of it for some socially useful purpose. It should be used without changing the layout or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.\textsuperscript{19}

The Athens Charter recommends that the occupation of buildings, with the aim of ensuring the continuity of their life, should be maintained but that they should be used for a purpose which respects their historic or artistic character. The conservation work should maintain the authenticity of the site, while any material used in conservation should be reversible, recognisable and proven by experience.\textsuperscript{20} The historic and artistic work of the past, as in our case (theatres and odeae), should be respected without excluding the style of any given period, and architects and archaeologists should collaborate with specialists in the physical, chemical and natural sciences with a view to determining the methods to be adopted in each specific case. The conservation and restoration of monuments must have recourse to all the sciences and techniques that can contribute to the study and safeguarding of the architectural heritage.\textsuperscript{21}

The Burra Charter, on the other hand, specifies that the cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy, and finally management of the place in accordance with the policy.\textsuperscript{22} The policy for managing a place must be based on an understanding of its cultural significance.\textsuperscript{23} The policy should identify a use, or combination of uses, or constraints on uses that retain the cultural significance of the place.

The new use of a place should involve minimal change to significant fabric and use, respect associations and meanings, and, where appropriate, should provide for continuation of practices that contribute to the cultural significance of the place. Policy development should also include consideration of other factors affecting the future of a place such as its physical condition, the owner’s needs, resources, and any internal and external constraints.\textsuperscript{24} Where the use of a place is of cultural significance it should be retained.\textsuperscript{25} A place should have a compatible use,\textsuperscript{26} where compatible use means respect for the cultural significance of a place. Such a use should involve no, or minimal, impact on cultural significance.\textsuperscript{27}

Conservation, interpretation and management of a place should provide for the participation of people for whom the place has special associations and meaning, or who have social, spiritual or other cultural responsibilities for the place.\textsuperscript{28} Thus the Burra Charter and the ‘modern use’ of ancient theatres and odeae can be illustrated as in Figure 3.

The Ename Charter emphasises interpretation of the access and understanding of the significance of the sites by sustainable interpretation, and sustainability in the long term, which must among the central goals respect authenticity, the local community
and the participation of associated communities and other stakeholders. Research, evaluation and training are deemed necessary. The experts who took part in the activities of the European Network of Ancient Places of Performance and the MINOTEC project have drawn up a series of guidelines for implementing the ‘Verona Charter on the Use of Ancient Places of Performance’. The main issues can be summarised as follows:

1. Facilitating comprehension by the public: the quality of public access, improving public understanding of the site.
2. Enhancing the sites by using them: to enhance the value of ancient places of performance by recognising them as places for artistic production and to use sites as a means of enhancement.
3. Managing places of ancient performance by contributing to development; promoting the site image by guaranteeing high standards for visitors and spectators, and safety.
4. Improving skills through networking.

Criteria for the Assessment of the Modern Use of Ancient Theatres and Odea

As a result of reviewing and evaluating the main issues relating to the international charters on the use of ancient places of performance and understanding the theatres’ value, ancient and current use, kinds of contemporary use, causes of deterioration and

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Figure 3 Illustration of the Burra Charter and the ‘modern use’ of ancient theatres and odea.
threats, and cultural significance, it should be emphasised that there is a need for a mechanism to produce a system of regular and permanent maintenance calculated to ensure the preservation and conservation of theatres and odea. The main components of the criteria for the assessment of the modern use of ancient theatres and odea should take into consideration five main issues: conservation, restoration and maintenance; interpretation and presentation; promotion and marketing; monitoring and re-assessment; and guidelines for the acoustic adaptation of ancient theatres and odea for modern performance.

**Conservation, Restoration and Maintenance**

Conservation, reinforcement and restoration of the architectural heritage of theatres and odea require a multidisciplinary approach, and must depend on multidisciplinary sciences to achieve sustainable development in terms of a balance between the needs of the visitor, audience and local community on the one hand, and the needs of theatres and odea within the whole site on the other. Accordingly, it should adhere to the following:

1. It should respect both authenticity and the principles of reversibility and take into account ancient technologies (e.g. acoustics and light).
2. The use of conservation techniques and materials must be compatible with the original materials of theatres and odea.
3. Recording and documentation of each step of conservation, restoration and reconstruction are necessary and should be published for all people who need information for scientific, tourism or academic study of theatres and odea.
4. Any alteration of the physical fabric of the theatre’s structure should be avoided. Comprehensive care for the physical fabric, cultural significance and architectural elements and design needs to be observed while infrastructure projects are developed.
5. Regular monitoring is required of the physical fabric after conservation work. The monitoring of the activities of the theatre and the number of visitors and audience is required. Such monitoring should be done before, during and after the performances.
6. Evaluation of the conservation, restoration and reconstruction work is necessary.

**Interpretation and Presentation**

Interpretation and presentation of the meaning of sites with theatres and odea are integral parts of the conservation process and fundamental to positive conservation outcomes. Interpretation means all the possible ways of presenting the cultural significance of a place.

Interpretation work must understand the need of visitors, audience and local community and the need of the site and may include a combination of the treatment of the fabric (e.g. maintenance, restoration and reconstruction), the use of and
activities at the place and the utilisation of explanatory material. While the presentation of the theatres and odea to the general public is an essential method of promoting an understanding of the origins and developments of modern societies, it is at the same time the most important means of promoting an understanding of the need for their protection.

Presentation and information should be conceived of as a popular interpretation of the current state of knowledge, and it must be revised frequently. Thus interpretation should present the aesthetic, historic and scientific values of theatres and odea by creating facilities and safety factors. This can be achieved by:

(1) Explaining the development of the theatre site to the local community and the regions by exploring the services and infrastructure projects that come to develop the region and put it on the tourist map. Performances and activities also play a role in developing a theatre site, which can bring money to develop and preserve the culturally significant site and create new jobs for local people. New technologies, such as multimedia tools, sessions, workshops, guidebooks, projector and data shows, various computer software and Internet websites, are required to allow comprehensive interpretation for all visitors and audience.

(2) Respecting the diversity of the cultural value for the local community and whole site. Respecting the diversity of visitors and audience can be achieved through the use of different languages in presentations, publications, sessions and Internet websites, which should lead to better and wider communication and understanding of the cultural significance and values of the theatres and odea. This will make the site more attractive.

(3) Giving visitors and audiences clear safety and security information by determining the safety zone of the theatre area and informing the public of the vulnerability of the surrounding site, by means of signs, documents, etc. and public safety measures, including hazard prevention, medical and emergency facilities and building attractive paths that steer the public away from fragile areas. Furthermore, it is important to prohibit the access to sensitive or damaged areas, provide appropriate facilities (seats, public lawns, rubbish bins, toilets, access to water, etc.) and provide facilities for the disabled that are as similar as possible to those for other visitors. Last but not least, the carrying capacity must accommodate the maximum number of visitors that is compatible for ensuring the site’s sustainable preservation and maintenance.

Promotion and Marketing

Tourism promotion programmes should provide a wider distribution of benefits and relieve the pressure on more popular places by encouraging visitors to experience the wider cultural and natural heritage of the region or locality. Tourism plans must include a clear explanation and definition of the cultural significance of the theatres and odea (e.g. the aesthetics, history, functions, and physical characteristics of the structure or the site). They should be compatible with management, conservation and
interpretation programmes, with a comprehensive plan for activities and performances to present the true history and function of each theatre.

Tourism programmes should encourage local communities to work as partners in decision making to preserve, protect and promote the cultural significance of the theatres and odea, by creating training and employment programmes for them. This should include a plan to evaluate the positive and the negative impacts of tourism and provide the visitor guide with details of studies and scientific discoveries at the site, such as ancient techniques of theatre building, function, the work of old technologies (e.g. acoustics and lighting in the theatre) and the relation of the site with its surroundings.

**Monitoring and Re-assessment**

Checking and monitoring during and after the intervention should be carried out to ascertain the efficacy of the results. All the activities of visitors, audience and local community in the theatres and odea and the whole site should be checked, monitored, and documented and kept as part of the history of the theatres and odea. Meanwhile, there should be ongoing programmes of evaluation to assess the progressive impacts of the audience and visitors numbers on ancient theatres, tourism activities and developments on the site as well as the impact on the local community.

**Guidelines for the Acoustic Adaptation of Ancient Theatres and Odea for Modern Performance**

The distinguishing qualities of the structure (especially the acoustical) and its environment, in their original or earlier settings, should not be destroyed. Reconstruction is appropriate only where a place is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the fabric. In rare cases, reconstruction may also be appropriate as part of a use or practice that retains the (acoustical) cultural significance of the place. In terms of the relationship between physical acoustic parameters and public preference, the existence of some architectural elements is of importance in order to improve the listening enjoyment of the public. For acoustical reasons, and in order to take advantage of the design of ancient theatres and odea, the following recommendations are necessary:

1. Restoration and anastylosis of the stage.
2. Restoration and anastylosis of the colonnade (portico) to improve the volume of sound in some cases.
3. The sound sources should preferably be on the proscenium, near the scene wall, not in the orchestra.
4. In order to improve sound reflections from the orchestra floor, the orchestra should not be used as a seating area for the audience.
5. Loudspeakers should be located in the orchestra to avoid problems with echoes. However, this can lead to uneven sound distribution, and hearing can become quite difficult in remote seats.
(6) The assessment of the sounds heard in the ancient theatres and odea should be performed in a controlled situation in the laboratory. The definition and testing of the psycho-acoustical assessment method of the proposed sounds and acoustics as defined for the modern use of ancient theatres should be refined.39

Figure 4 illustrates the main issues of the above analysis for the ‘modern use’ of ancient theatres and odea, namely criteria, process, or sequence of investigations, decisions and actions.

Summary and Concluding Remarks

The general approach to the ‘modern use’ of ancient theatres and odea must respect and deal with four main components: visitor needs, audience needs, local community needs and the needs of the monuments and the whole site. A balance must be struck between the need to protect the monuments and the need to meet the expectations of audiences, visitors and local communities. Such use should involve no, or minimal, impact on the site’s cultural significance. As places of cultural significance, ancient theatres and odea should achieve a compatible use, which means a use which respects their cultural significance in relation to four main issues: as ancient landmarks, their impressive architecture, their acoustic qualities and their use in modern cultural performances.

‘Modern use’ must achieve a ‘sustainable site’ with systematic site planning. The American Institute of Architects defines sustainability as the ability of a society to continue functioning into the future without being forced into decline through the exhaustion or overloading of the key resources on which that system depends. Thus, reuse of ancient theatres and odea should involve minimal change to significant fabric and use (function); it should respect associations and meanings; and, where appropriate, it should provide for continuation of practices which contribute to the cultural significance of the places within these monuments.

Technical studies must extract the old technologies that are found in theatre and odea designs such as acoustic systems, lighting and distribution of seats. Theatres and odea should be promoted and managed in ways that protect their authenticity and enhance the visitor experience by minimising fluctuations in arrivals and avoiding excessive numbers of visitors at any one time.

While the cultural significance of many theatres and odea is not readily apparent, it should be explained by interpretation. Interpretation and reuse should enhance understanding and enjoyment, and be culturally appropriate by:

(1) Serving the purpose for which they were originally designed and enhancing the sites with theatres and odea by using them. The use to which they are put gives them all their meaning by updating their function; whatever the type of event, it is essential to take account of the site’s vulnerability.

(2) Managing ancient theatres within the present and future perspective of development by contributing to local development.

(3) Preserving their authentic scientific information. Using ancient theatres and odea as a means of enhancement, restoring the stage and colonnade (portico) to their
Figure 4  Illustration of the ‘modern use’ of ancient theatres and odea criteria process.
original level and layout in ancient times, not using the orchestra as a seating area for the audience but for the loudspeakers, improving the sound reflections from the orchestra floor and avoiding echo problems, and encouraging studies on the impacts of noise vibrations on these structures.

(4) Infusing ancient theatres and odea with their full role as places of artistic creation, shared enjoyment and emotion. Performances should help to enhance the heritage and arouse the audience’s interest in ancient theatres and odea.

Ultimately, a balance needs to be struck between conservation and reuse, if a significant acoustical and architectural heritage is to be restored and revived, to be enjoyed by modern audiences.

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Notes

[7] For the Jerash festival see http://www.jerashfs@go.com.jo
[8] For the Orange theatre see http://www.theatre-antique.com/orange/uk_index.htm
[10] Segal, Theatres in Roman Palestine and Provincia Arabia, 32.
[15] For the ERATO website see http://www.at.oersted.dtu.dk/~erato/index.htm; see also Lisa et al., ‘How Did the Ancient Roman Theatres Sound?’
[17] Lisa et al., ‘How Did the Ancient Roman Theatres Sound’?
[20] Athens Charter; for more details see the General Conclusions of the Athens Conference.
[23] Ibid., Article 6.2.
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