



Verona Charter on the Use of Ancient Places of Performance The acoustics in the Verona Arena project with the central stage

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ABSTRACT

The Charter to be found below originated in the work of experts who met in the framework of the European Network of Ancient Places of Performance (theatres, amphitheatres and circuses), which has been fostered since 1993 at the initiative of the Council of Europe. Its purpose was to promote cooperation, centred on tangible examples, among professionals active in one area or another in the life and enhancement of a heritage widely established in many countries of Europe and around the Mediterranean. Archaeologists, architects, art historians, scenographers, performance organisers, representatives of local authorities, tourism experts, economists and specialists in local development exchanged their points of view in the course of a number of thematic encounters, giving expression to an intersectoral approach towards objectives for a better conservation and use of the cultural heritage.

The Charter on the Use of Ancient Places of Performance is the result of cooperation between the Council of Europe, the European Union and Unesco. It is the outcome of a series of stages. In the first place, there was a colloquy on conservation and use of ancient theatres held in Sicily in 1995, which resulted in the Segesta Declaration.

This achievement has been amplified and enlarged upon in the framework of the Minotec project, which was launched with the support of European Union in association with various institutions in France, Greece, Italy and Spain.

The colloquy on *New Technologies and the Enhancement of Ancient Places of Performance* of August 1997 (Verona), following upon seminars held in Messene (El) and Lyon (Fr). The text of the Charter was submitted to the Council of Europe Cultural Heritage Committee which recommended the dissemination of the charter during its March 1998 meeting. The "European Network of Ancient Places of Performance" and the Minotec project were implemented by the European Foundation for Heritage Skills. The writer was part, as an acoustic expert, of the Minotec project and collaborated in the drafting of the paper.

Keywords: Amphitheater; Verona Arena; Verona Charter.

1. INTRODUCTION

The "Charter on the Use of Ancient Places of Performance" concerns the ancient places of entertainment, such as theaters, amphitheatres and circuses, which are among the very few monuments still used. These places are a cultural heritage not only as monuments but also for their transformations, their subsequent uses and the cultures and traditions that have determined them.

2. MAIN POINTS AND OBJECTIVES OF THE CHARTER

The Charter aims to organize and protect a repository of scientific information on these places, to manage the monuments from a perspective of economic and cultural development and, where possible, to reuse once again these ancient sites as entertainment venues for artistic creations and shared emotions. The charter was divided into the following points:

2.1 I. Resource preservation

The ancient places of the show are a vulnerable resource threatened by time and by the improper uses to which they are sometimes assigned. It is up to the governments and authorities that own these sites to

create appropriate conservation strategies for this heritage that fit into the general context of policies for the conservation of architectural and archaeological heritage. Any changes to the assets must comply with the reversibility principle.

2.2 II. Conveying accurate information

i. Many of the most well-known and popular ancient entertainment venues are not adequately studied and documented. New technologies represent sophisticated aids in the research of monuments and their history, and they can also help in conservation and restoration. It is very important to adequately inform public opinion, improve its knowledge and raise awareness of these issues.

ii. However, the development of digital and virtual technologies, in particular as regards images, require vigilance in terms of professional ethics and a clear distinction between scientific purposes and any dissemination purposes.

2.3 III. Facilitating comprehension by the public

i. The conservation of the entertainment venues only makes sense if it makes this heritage accessible to the general public and improves their knowledge in general.

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ii. Access to the ancient places of the show may be subject to restrictions due to safety or maintenance reasons, and in any case the entrance to these places must be designed with the aim of offering visitors help in their knowledge.

iii. A selective and low-cost scientific work should serve as a basis for providing information to the general public, either through traditional information tools of a tourist-cultural nature or through "social media".

iv. Raise awareness in young people of the existence of a category of cultural heritage that is widespread throughout Europe, the Middle East and North Africa; this fact should contribute to transmitting an ethical message based on common values deriving from a heritage due to a shared urban way of life.

2.4 IV. Enhancing the sites by using them

i. Considering that the monuments, due to their state of conservation, are not suitable for modern performances, the adaptation of the sites for performances will increase their significance.

ii. It is essential to take into account the vulnerability of the site when any type of event is organized, at the same time the shows must help to enhance the historical place.

iii. In using these sites for shows, it is necessary to find a balance between the need to protect the monuments and the expectations of the public, visitors and residents. For this purpose, there must be a collaboration between the municipalities that own the sites, those responsible for the conservation and the organizers of the shows.

iv. Correct use of the sites should reduce the risk of material damage to the ancient buildings during the performances. It will take into account both the needs of the "staging" during its planning, but also the maintenance and restoration of the monument,

v. With the realization of live performances and hi-tech shows, the history of the place will benefit from this through the use of new technologies for lighting, images and sound.

vi. Creations of contemporary representations should be encouraged, provided the artist is able to interpret the spirit of the site and use it for the benefit of both the show and the monument.

2.5 V. Managing places of ancient performance by contributing to development

i. Entertainment venues are both a resource and a hub for local development, they act as major tourist attractions, generating economic spin-offs for the cities and regions concerned.

ii. The sustainable management of these venues for the show will only be possible if there is a good agreement between the various partners regarding the conservation and use of the sites. This will involve the elaboration of a management plan defining the aims pursued and the responsibilities of the partners, as well as identifying a coordinator to reconcile the different interests on the site.

iii. Strategies must be adopted to promote the ancient places of entertainment in a more complex scheme of intersectoral development based on the combination of interregional and international cooperation initiatives and agreements.

iv. The development of ancient entertainment venues should be centered on a series of cultural projects that create jobs for local residents without causing undue inconvenience to them and their environment.

2.6 VI. Improving skills through networking

i. In order to improve skills, adequate information must be provided to companies, project-makers and all other partners on the development of techniques for the conservation and use of the sites. In addition to the initial training and further requests for specific professions for both conservation and entertainment, special training courses will have to be organized on how new technologies can be used effectively in entertainment venues.

ii. The international character and the similarity of the problems relating to the conservation and enhancement of the ancient places of entertainment require transnational professional cooperation. Networking should be developed to foster the exchange of scientific information between research groups and to organize advanced professional training courses for researchers, managers and professionals involved in the production of shows.

It is considered appropriate that a network system be adopted to pool and group the data on these sites, and to coordinate in synergy the initiatives to promote the ancient places of entertainment as part of the cultural heritage.

3. APPENDIX I TO THE CHARTER –

Technical details concerning the conditions of use of ancient places of performance

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 the implementation of the Charter on the use of ancient places of performance.

3.1 I. Heritage resource preservation and data accuracy

i. Maintenance, consolidation and restoration work carried out on ancient spectacle places must be based on sufficient scientific documentation and in-depth archaeological analysis. In addition, they must:

- aim to implement the principles of the International Charter for the Conservation and Restoration of Monuments and Sites (Icomos, 1964);
- respect the aesthetic, historical and scientific integrity of the monument;
- leave some areas reserved or closed in view of the resumption of further research or scientific tests.

ii. If the venues are to be open to the public, the measures to be taken must be such as to minimize the risk of damage caused by the presence of too many visitors. These measures will consist of:

- informing the public of the vulnerability of the sites, through signage, documents, etc.;
- building attractive and interesting routes that distract the public from fragile areas. In some cases, it will be necessary to prohibit access to sensitive or dangerous areas;
- providing adequate facilities which reduce the risk of pollution and damage.

iii. The use of new computer technologies will facilitate the tasks of recording, analyzing, scheduling and monitoring the work carried out on the sites.

iv. In matters of dissemination of information and divulgation, interdisciplinary teams created to develop multimedia products should be able to minimize the risk of scientific data becoming irrelevant or distorted. Project leaders will need to define the level of their goal (e.g. scientific research, evocation or dissemination).

The professionals who will be involved in the projects for these places will have to adhere to the ethical and moral principles that will be adopted in the future at an international level regarding the use of new information technologies in the cultural sphere..

3.2 II. The quality of public access

Measures to improve the quality of public access should help ensure that sites are well preserved, while promoting public understanding of cultural heritage values.

A. Improving public understanding of the site

The necessary measures will include:

- designing circuits that follow the routes used in antiquity, so that the public is able to gradually discover the sites and can access the relative places;
- providing aids to understanding the remains, through brochures, audio guides and guides suitable for the various categories of visitors;
- opening an information center for visitors, strategically positioned at the main entrance to the site, to explain to visitors how to interpret the site, placing it in its historical context;
- creating dedicated "on-line" websites and "off-line" multimedia information sources can help the public prepare for the visit.

B. Promoting the site image by guaranteeing high standards for visitors and spectators

i. Due to their historical and architectural significance, some ancient venues open to the public are real cultural enterprises and a factor of local development. However, the strategies for public entry adopted for each site must set the maximum number of visitors compatible with the guarantee of its conservation and maintenance.

ii. Where possible, sites should be able to offer visitor-friendly services and equipment, such as credit card services, information displays, multilingual signage, queuing systems, cloakrooms, etc..

iii. Facilities for disabled people should be as similar as possible to those for other visitors, although special evacuation and safety procedures will be required.

iv. Whenever performances are organized at the ancient sites, the logistics regarding the needs of the performers will also have to be taken into consideration. The desire to provide maximum comfort to the staff must be reconciled with respect for the cultural heritage.

v. In order to ensure high standards for visitors, staff must receive continuous training and must be adapted to the public relations and language requirements of a highly image-conscious cultural enterprise.

C. Safety

i. Measures consistent with the layout of the monument or its position will be taken to address not only the effects of a fire or any other danger, but also, and above all, the panic that could arise in the crowd of visitors or spectators.

ii. Provisions must therefore be made to:

- define a safety zone around the monument that prevents random parking and allows the free movement of law enforcement and emergency services;
- develop specific safety rules for each site. These standards must define:
 - maximum capacity in terms of the number of visitors or spectators;
 - public safety measures, including risk prevention, medical treatment, and emergency facilities.

3.3 III. Use of sites as a means of enhancement

The equipment used for the exhibitions should be such that it affects as little as possible the legibility of the monument to the public and the understanding of its historical significance. This observation is particularly important in the case of festivals that take place at the times of the year that attract the majority of tourists.

i. Regardless of the wide range of different show productions that may be staged at the ancient sites, the shows must comply with the site's conservation and protection rules.

It is advisable to try to satisfy all users and all audiences, not only by integrating but also by smartly exploiting the stage devices and security measures to better show and better understand the site, by:

- restoring the stage to the original level and layout of antiquity;
- placing sets, backdrops, audio equipment and stage covers so that they coincide with the ancient stage walls, which have usually disappeared;
- using light as an aid to the scenography, in order to avoid excessively bulky scenographies;
- thinking virtual scenographies adaptable to different locations;
- using mini-equipment for lighting, projectors, wiring, control units, etc.;
- giving priority to the restoration of ancient stairways and corridors when public walkways and escape routes are to be built, so that the original structure of the monument is more evident.

ii. Virtual images will be useful for staging productions that do not cause damage to the site's structures, and can minimize wear and tear.

iii. Where necessary, computers can be used to develop acoustic models that can help design new ways of using space and scenery. The three-dimensional sound reproduction can be used to integrate the use of virtual images by recreating specific sounds of the place. The evocative quality of sound, when coupled with visuals, offers viewers a more in-depth analysis of the nature of ancient sites, as acoustics is also an integral part of cultural heritage.

3.4 IV. Adoption of negotiated codes of good practice for each site

The measures to be adopted in respect of the ancient places of entertainment will be based on general principles established by the Council of Europe and other international organizations. A set of specifications for use will have to be drawn up for each site:

- on the basis of negotiations between the local authorities that own the site and the conservation services;
- on the indication of the constraints connected to the site and the definition of the rules of use that must be observed by the organizers of shows and other events.

3.5 V. Networking

Professionals offering their services in relation to ancient entertainment venues will benefit from working together by developing a network approach.

An approach where information and initiatives are shared between European and Mediterranean countries will help to promote not only research, but also continuous training and raising awareness of a large audience.

For example, joint projects can be set up in the following areas:

- Scientific research and communication of research results;
- Promotion of cultural events inspired by this specific type of heritage;
- Promotion of lasting cultural tourism initiatives that recall the ancient heritage of the entertainment venues, as well as their past and present significance.

4. MINOTEC PROJECT

The European Network of Ancient Places of Performance was promoted in 1993 by the Council of Europe to focus attention on and protect the ancient entertainment venues, a heritage that Europeans share with the inhabitants of all the countries bordering the Mediterranean.

The Minotec Project was one of the activities of the European Foundation for Heritage Skills and was implemented with the help of the European Commission.

The project had the purpose of proposing the use of new technologies for the enhancement of ancient entertainment venues, and it involved the following places: Verona (Italy), Messene (Greece), Merida (Spain) and Lyon (France); and the ultimate goal was to organize an international conference in Verona in 1997, an international conference, where the countries interested in ancient entertainment venues and the managers of these sites could have exchanged experiences.

Therefore, the Minotec Project was concluded on 27-31 August 1997 in Verona by the international colloquy on “*New Technologies and the Enhancement of Ancient Places of Performance*”.

4.1 The "Arena" Amphitheater of Verona and the central stage

The study group for acoustics, within the frame of the Minotec project, worked on the initiative for the Ve-

rona Arena with the central stage for public performances, the "Arena 2000" project drawn up by the Ente Lirico Arena of Verona.

The working group for acoustics in the Minotec project was composed of Prof. Pompoli Roberto, Prof. Farina Angelo, and Ing. Cognini Mario.

As part of the "Arena 2000" project, considering the central stage and the tiers around 360 degrees, the following activities were briefly carried out:

- Live study of the propagation in space of the singers' voice (a soprano and a baritone were used) at 360°, recording and measuring the sound levels every 5°;
- 3D modeling in CAD of the Verona Arena;
- Study, through simulations, of the propagation of the singers' voices and the sounds of the orchestra instruments within the amphitheater, considering them on the central stage and in different positions.

During the International Colloquy on "New Technologies and the Enhancement of Ancient Spectacular Places", the results of the acoustic study were presented, and through the *Auralization* process of the acoustic parameters, it was possible to make the participants feel virtually how the voices of the singers would have been heard on the central stage in the various positions of the audience on the bleachers.

5. CONCLUSIONS

It is believed that the Verona Charter has been an extremely important result for the conservation and enhancement of the ancient places of entertainment, both for the individual sites but also for the creation of a network that allows sharing of ideas, projects, scientific research and new technologies that can be used on these fundamental monuments that are part of the European and Mediterranean cultural heritage.

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6. REFERENCES

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