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THE STUDY AND THE VALORIZATION OF THE ROMAN THEATRES OF CRETE



This Ph.D. research is about the application of an innovative methodology which allows specialists to obtain more information about ancient theatres architecture through virtual instruments, and therefore to verify the reliability of reconstructive hypotheses of these monuments. In addition, a captivating digital tool to display and valorize the possible original appearance of ancient theatres has been developed, which can be used by the museums to attract visitors, to spread the history of ancient theatres and to facilitate the learning process.

Assuming that in an ancient theatre the spectators were able to watch and to listen a performance, the methodology consists in the application of 3D visibility analysis and virtual acoustics analysis. 3D visibility analysis is useful to evaluate the degree of visibility of the stage from the seating area of the theatre, and then to identify “obstruction points” which impedes the visibility. The virtual acoustics analysis produces information about the quality of the acoustics within the theatre, according to the presence or the absence of some architectural elements. The results obtained by the application of these tools can suggest new reconstructive hypotheses or at least they will persuade to reconsider the examined reconstructions.

The tool developed for the dissemination of the results of the research is a VR application for headset mounted display, which allow the user to be virtually transported within six of the Roman theatres of Crete, to listen to an ancient performance from different chosen seats, and to learn more about the monuments through selectable icons and informative panels.