Acoustics of ancient Greek and Roman theaters in use today

In the Mediterranean area a large number of open, ancient Greek and Roman theatres are still today facing a busy schedule of performances including both classical and contemporary works of dance, drama, concerts, and opera. During the EU funded "Erato" project and a subsequent master thesis project, extensive measurement data have been collected from three well-preserved theatres, which represent three different stages of enclosing the audience in an open-air environment: (1) the Epidaurus Theatre in Greece without skenae wall or columnade behind the cavea; (2) the Jerash South theatre in Jordan with skenae wall but no columnade; and (3) the Aspendos Theatre in Turkey having both a full skenae building and a columnade around the cavea. In the paper the acoustic characteristics of these theatres will be compared and discussed in the light of acoustic performance requirements for modern use.