

Archeoseismology

Klaus-G.HINZEN

Earthquake Geology and Archeoseismology, Cologne University, Allemagne

Within the multidisciplinary field of archaeoseismology, quantitative methods have begun to be utilized more prevalently. We present a scheme of applying quantitative models to test the seismogenic hypothesis of observed damage and give examples from field cases. The combination of 3D structural models of buildings or their remains based on laser scanner measurements combined with high-resolution digital images allows the construction of a damage and/or deformation inventory and assists archaeological work during an excavation. 3D surface meshes derived from the same scan data are the basis for Finite or Discrete Element models of the structures. The effect of site-specific earthquake-related ground motions, other natural causes, and anthropogenic influences are simulated and ultimately compared with the damage inventory. However, due to the high level of complexity of the problems, definite answers cannot always be achieved.



Jeudi 5 juin 2014 à 11h Salle de conférences d'ISTerre

OSUG-C, 1381 rue de la piscine, Campus Universitaire Arrêt Tram B/C Bibliothèques universitaires