CLOSE RANGE PHOTOGRAMMETRIC ANALYSIS OF EARTHEN BUILDINGS UNDER SEISMIC LOADING

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ABSTRACT

This paper describes an INTERTECT project to demonstrate the feasibility of a new analytical technique for evaluating the performance of earthen buildings and other non-instrumentable structures subjected to earthquake-induced loads. Close range photogrammetric equipment will be linked to, and triggered by, seismographic instrumentation to observe and record the performance of buildings during actual loading. If successful, the technique will provide a tool for observing adobe and other earthen buildings during seismic events. Successful development of this technique will give researchers and scientists a new tool for earthquake engineering research and will open numerous types of buildings and other structures such as earthen dams to observation, which have not previously been subject to complete analytical examination under actual or simulated loading conditions.