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Session

S31

S31 Earthquake archaeology and geoarchaeology around Eastern Mediterranean and Black Sea (special IGCP 567 session)

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This session accepts both full papers and abstracts

The International Geoscience Programme IGCP 567 reveals a platform for archaeological evidence that can make a valuable contribution to long-term seismic-hazard assessment in earthquake-prone regions where there is a long and lasting cultural heritage. The Alpine-Himalayan region is regarded as an ideal laboratory, because the archaeoseismological studies that have already taken root in the Eastern Mediterranean can be extended to neighbouring regions. Where archaeological relics are displaced they can be used to find active and earthquake-prone faults, show in which direction they slipped during the earthquake and establish comparative fault slip-rates. Archaeological information can date episodes of faulting and shaking at, along and off the active fault. The obvious difficulty with this approach is that it is hard to distinguish between damage caused by an earthquake and that caused by another destructive event, such as war or the natural failure of foundations. Typologies of earthquake-characteristic damage have been proposed but rarely have they been subjected to a critical and systematic analysis.

By going from the shaking damage of the archaeological remains the session intends to sum up the development of a broadly accepted methodological framework to what reliably constitutes seismic damage. Furthermore, on- and off-fault damages should be discussed in the session, and the potential to be used a palaeoseismic / archaeoseismic tool should be carefully evaluated. Contributions of case studies from these regions should address specific questions relating to the locations, timing and size of past destructive earthquakes and so will aim to contribute specific information for seismic-hazard analysis. We welcome contributions of all areas of active tectonics related with archaeoseismic damage in the Eastern Mediterranean and Black Sea areas.