

## **A WORLD-WIDE DATABASE OF PALEOSEISMIC DATA**

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Paleoseismological data play a critical role in understanding earthquake recurrence, in fact, they provide the unique opportunity to obtain and interpret information on large earthquakes occurring over several seismic cycles. This is because in general, large earthquakes rupture the same portion of a fault too infrequently when compared to the time interval spanned by instrumental and even historical seismicity. Some attempts at modeling earthquake recurrence from paleoseismic data have been undertaken, but the principal barrier to success is the limited published data for large events. Modeling results frequently contain ambiguities, and are strongly dependent on initial assumptions such as size of the earthquakes considered, segmentation, and models of seismic behavior. However, because modeling earthquake recurrence can have a significant impact on regional and local earthquake hazard assessments, improved techniques are an urgent priority for research. With this in mind, a multidisciplinary group met in February 1999 to discuss the main issues of earthquake modeling, and proposed developing a worldwide paleoseismic database. The database will include information on the fault, on the paleoseismological site, and evidence and age of paleoearthquakes. Emphasis is given to the interpretations and type of observations to allow future evaluation of the uncertainties associated with each record. The compilation is open to all the scientists willing to contribute; data input is accomplished through a WEB site (<http://gldmaps01.cr.usgs.gov/faults/>). A preliminary version of the database and possible applications will be presented.