

**Pecchioli** Laura, Humboldt Universität, Berlin, „*Terre motus*: repair and prevention in Ostia, the harbour city of ancient Rome“

## **Abstract**

Since ancient times an empirical and intuitive approach has regulated the way of building and strengthening the masonry structures. It is within the framework of a stubborn fatalism that there is a repetition of the construction systems seemingly devoid of seismic measures until almost a century ago, when the first seismic regulations began to be imposed. Ancient buildings preserve traces of seismic events and it is possible to trace the signs of both the earthquake and any measures taken by man to repair or counteract its effects.

Ancient earthquakes are often mentioned without a precise geographical location, or are fortuitously recorded in a single location that has suffered its effects, even if far away from the origin of the earthquake, but where the epicenter is mistakenly placed. Often these *ante litteram* seismic observatories were important political or commercial centers, such as Rome, Ravenna or other cities/places that, depending on the period, held or somehow catalyzed the regional presence of the sources.

It should be emphasized that the type of damage of a natural or historical event is similar to that induced by an earthquake. In this context, the interdisciplinary approach can be useful in order to be able to identify and possibly date, albeit with approximation, from obvious cesures in the archaeological strata. This may require in-depth in situ analysis of geomorphological, geotechnical, geophysical, engineering-structural and historical type.

The contribution proposal focuses on interdisciplinary archaeological research in the context of Ostia Antica. *Cross check* of the collected information allows to identify the causes of the modalities of collapse. An structural analysis in situ, the development of a seismic micro-zoning and numerical models, the interpretation of reports/photos/stratigraphies of previous/last excavations, historical sources and of seismological history are milestones in an archaeoseismological approach to identify the effects of natural disasters that have affected the area over the centuries.