

# **ARCHAEOSEISMOLOGY**

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# Material for the Investigation of the Seismicity of Central Greece

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## Introduction

The historical seismicity of Central Greece is imperfectly known; its coverage is discontinuous and its record is grossly deficient. The period from 1800 onwards is relatively well-documented. However, further back in time it becomes increasingly difficult to find data, and the minimum size of the earthquake for which there is guaranteed detection increases.

Our studies show that the total number of important earthquakes in Central Greece identified for the period between the 5th century BC and the 18th century AD amounts to just over eighty (Fig. 1). Seen by historical periods, we may identify a comparatively acceptable level of reported activity during the 5th century BC, literary sources providing information for twelve earthquakes. While it is certain that many small earthquakes must be missing from the record, we can reasonably assume that most of those of which details survived were relatively important events. It is also reasonable to assume that any major or damaging earthquakes in the vicinity of the larger urban centres of the time should be mentioned.

After the 5th century BC, however, the number of earthquakes identified gives way to a generally very low level in the Greco-Roman, Byzantine and Venetian periods. This decline has to be seen in terms of inferior reporting of events in sources lacking material of local origin rather than due to lack of seismic activity. After the 14th century the situation gradually improves, but our dependence on information from Venetian and Turkish sources gives the distribution of earthquakes a bias in favour of coastal areas, while data from places further inland continue to be almost totally lacking.

It is only after the 17th century that documents, such as consular correspondence, Turkish unpublished material, the diaries of European travellers and press reports, begin to preserve data that would otherwise have escaped notice in more general works and provide information about seismic activity. For this and earlier periods local, Greek sources are almost totally lacking. Fig. 2 shows the time distribution of the number of earthquakes per century in the region shown in Fig. 1.

A typical example of the incomplete earthquake record of Greece is that for the city of Athens.

## Earthquakes in Athens

The historical record of Athens appears to have been almost free of destructive earthquakes. There is little in literary sources and no epigraphic material referring to earthquakes in the city (Robert, 1978). Earthquake damage known to have occurred in the Athens area during its twenty-five century long history has been very infrequent, small, and chiefly due to relatively large earthquakes originating either on land or off shore at some considerable distance from the city.