Reconstructing the 1456 earthquake sequence through the temporal analysis of the historical sources

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During the night of 5 December 1456 a strong earthquake shook central and southern Italy, at that time part of the Naples kingdom, for more than 2 minutes; the estimates report that more than 13000 people died. This is still the biggest earthquake ever occurred and reported in the historical documents in the area and maybe the biggest one in the history of Italy. By comparison of dimension and characteristics with other destructive earthquakes occurred in the area, it is possible to suppose that not less than 3 considerable seismogenic sources did activate in a short time interval.

After the 1980, Irpinia M6.9 earthquake, new historical studies have been performed about this event: in the archives in Italy and Europe many new documents, letters, chronicles, administrative acts, etc., have been found. This is a clear evidence of the strong impact of this earthquake on the social context and of its echo all around trough diplomatic network. Giannozzo Manetti, ambassador of the florentine seigniory of the Medici in Naples, compiled a complete, village by village damage and casualties description. He also drew the compilation of one of the first earthquake catalogue in Italy: De terraemotu. He had a deep knowledge of latin language: comparing the terms of his description and the percentage of casualties, a strict correlation has been found, as if he elaborated his personal “intensity” scale.

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The analysis of the available documents, performed with varied approach (chronological, geographic, etymologic, etc.), and the reconstruction of the transmission of the information (from the villages to Naples, the capital, and from Naples to other capitals), allowed to determine a reliable damage pattern, widely destructive as appear since from the letters written in the first days after the mainshocks.

The analyses of the effects of the sequence in the light of the spreading of the information in the days following the event will be presented.

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