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Archaeomagnetic dating of Rocca San Silvestro limekiln

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Rocca San Silvestro is a fortified village in Tuscany (Central Italy) we are investigating from the archaeomagnetical point of view. By way of the use of the properties of the magnetic minerals that are present inside the productive structures (such as kiln and furnaces) we produced a first data set for the definition of the time span of the last period of human presence into the village. In order to better clarify this matter, a comparison between archaeomagnetic and historical-archaeological information has been also performed.

The first dated structure has been the limekiln positioned in the Southwestern portion of the village. This structure resulted by archaeomagnetic dating to be last utilized in the half of the XIV century (1360 ± 30) . The precision of this datum is relatively poor in respect to the general ability of the archaeomagnetic method. This fact is due to the need of a restricted sampling. Actually we was obliged to took only a limited number of clay fragments of the mortar between the limestone's blocks of the kiln, because the clay lining of the internal wall of the kiln was completely removed during archaeological excavation. Nevertheless, this first datum is able to constrain the age of abandoning of the village that by archaeological data was positioned up to now in an unknown moment inside the XIV century. The archaeomagnetic studies will continue in the next future in this area, in order to date the other productive structures (pottery kiln and metallurgical furnaces) that are present in Rocca San Silvestro area. The final goal is to trace the timing of the different phases of use and abandon of this miner's village in a period of enormous changes in land use and in mining technics in Tuscany.