

# **NEW ARCHEOINTENSITY DATA FROM WESTERN EUROPE AND THE MIDDLE EAST: COMPARING REGIONAL GEOMAGNETIC FIELD INTENSITY VARIATION CURVES SPANNING THE PAST TWO MILLENNIA**

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We summarize the archeointensity data spanning the past two millennia that we recently obtained from Western Europe (France, Belgium and Italy) and from the Middle East (Syria). This data was derived from the analysis of ceramic and brick fragments using the “in field-zero field” (IZ) or the IZZI version of the classical Thellier and Thellier (1959) method and/or the Triaxe procedure that involves high-temperature magnetization measurements. All these results were corrected for the anisotropy of thermoremanent magnetization (TRM) and for the dependence of TRM acquisition on the cooling rate. Special care was paid to the dating of the studied fragments, to the coherence of the intensity data obtained at the site level and to the consistency of the mean intensity values of the same age. These aspects are crucial in order to reliably recover the regional, possibly rapid, geomagnetic field intensity variations. We present a comparison between the archeointensity curves from Western Europe and the Middle East deduced from our dataset, together with a comparison with the expected curves derived from global geomagnetic field models. This gives us the opportunity to discuss the large scatter that exists in all the available archeointensity data which raises the difficult question of the selection of data for, in particular, field modeling.

Archeomagnetism, Paleomagnetic secular variation, Paleointensity

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