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New intensity data from Greece

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Recent studies have shown that the geomagnetic field has exhibited in the past numerous intense, short-lived, regional maxima in intensity at various times and locations, such as in the Middle East and Europe. However, and due to the limited number of high-quality intensity data, the spatiotemporal evolution of these features as well as the main causes causing the observed behaviour are not completely understood. In this context it is therefore crucial to further investigate these intriguing events. Here we present a new archeomagnetic study of three archaeological sites from Greece: Dikili-Tash (4300-4200 BC), Mochlos (1200-1150 BC) and Velika (600BC). We have archeomagnetically investigated 76 ceramic fragments corresponding to these three contexts. For this purpose, we applied the classical Thellier palaeointensity method including regular partial thermoremanent magnetization (pTRM) checks and TRM anisotropy and cooling rate corrections. From the three studied sites, two reliable mean intenisties are presented. The new archeointensities obtained are compared with previous archeointensities and regional and global geomagnetic field models.