



## **New archaeomagnetic directions and full vector data for Central Europe**

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Directional archaeomagnetic reference curves have been published for Austria and Germany some years ago. Recent determination of new archaeomagnetic directions was mainly concentrated on time intervals with only sparse data. About 60 new directions have been obtained and further 25 new archaeointensities have been determined. The past 3500 years are now covered with one or two intensity values per century, all associated with direction. The data base for direction is much larger and in the order of ten directions per century. Examination of velocity and curvature of the archaeomagnetic calibration curves yielded four major directional changes (sometimes called 'archaeomagnetic jerks'), which are found in Central Europe and all over Europe at the same time. A fifth 'archaeomagnetic jerk' occurring in the 8th century BC is also well documented in the new data. Using the updated archaeomagnetic data set from this study, the hypothesis of correlation between 'archaeomagnetic jerks' and high intensity has been tested. It is not supported by the new results, especially not by the full vector data. However, rapid variations in direction as well as in archaeointensity on centennial timescale are observed during the past 3500 years. In particular, two very pronounced intensity highs occur in the 5th century BC and the 8th century AD. In both cases, archaeointensity increased with a rate of more than 10  $\mu\text{T}$  per 100 yrs during the preceding centuries.