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First Archeomagnetic directions from Korsimoro, Burkina Faso

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We will present the first archeomagnetic results obtained from smelting kilns sampled at the metallurgical site of Korsimoro, Burkina Faso. During two field campaigns we sampled 32 structures covering a time span between 800 and 1800 AD. Archeological investigations revealed four smelting techniques. Stratigraphic and preliminary radiocarbon analyses show that these techniques belong to distinct periods.

At present about 20 structures have been measured. These reveal a shallowing of the inclination between 800 and 1200 AD from 25° to about 0° , followed by a steepening to again 25° between 1400 and 1800 AD. Declinationswise we observe a linear movement to Western directions, from 20° around 800 AD to 0-10° around 1800 AD.

The new archeomagnetic results of the younger structures reveal directions similar to the expected values from gufm.1 model. Directional results of older structures reveal trends that are significantly different from the ones calculated using current millennial scale models. In contrast, relocating the Balkan curve to Korsimoro indicates a very good agreement with the new measurements.