

Archeomagnetic investigation in Slovakia

Kubišová Lenka^{1,2}, Igor Túnyi¹

¹ Geophysical Institute Slovak Academy of Sciences, Dúbravská cesta 9, 845 28 Bratislava, Slovak Republic

² Department of Applied and Environmental Geophysics, Faculty of Natural Sciences, Comenius University, Mlynská dolina, 842 15 Bratislava, Slovak Republic

Corresponding author: geofleku@savba.sk

Abstract: Intensive archeological investigation in Slovakia discovered several interesting archeological localities. Together with other dating methods the archeomagnetic measurements were used for estimation of the approximate age of archeological artifacts from five localities. The samples were pieces of ceramics and thermally alternated clay. The Thellier method of double heating was used. The resulting values were compared with geomagnetic intensity curve for territory of the Central Europe (Bucha, 1975).

The investigated specimens came from western and central Slovakia Fig. 1. After data processing the values of the ratio of geomagnetic intensity (archeofield vs. laboratory field) from localities Zvolen – Val na Dráhach $\approx 1,35 \pm 0,085$, Bíňa $\approx 1,33 \pm 0,176$, Starý Plášť $\approx 1,51 \pm 0,179$, Bojná $\approx 1,30 \pm 0,15$, Banská Štiavnica $\approx 1,03 \pm 0,09$ were obtained. According to these results the ages of origin of the archeological artifacts were stated.

The authors are grateful to the VEGA agency (grant 2/0195/12) for the partial support of this work.

Keywords: Archeomagnetism, Thellier method

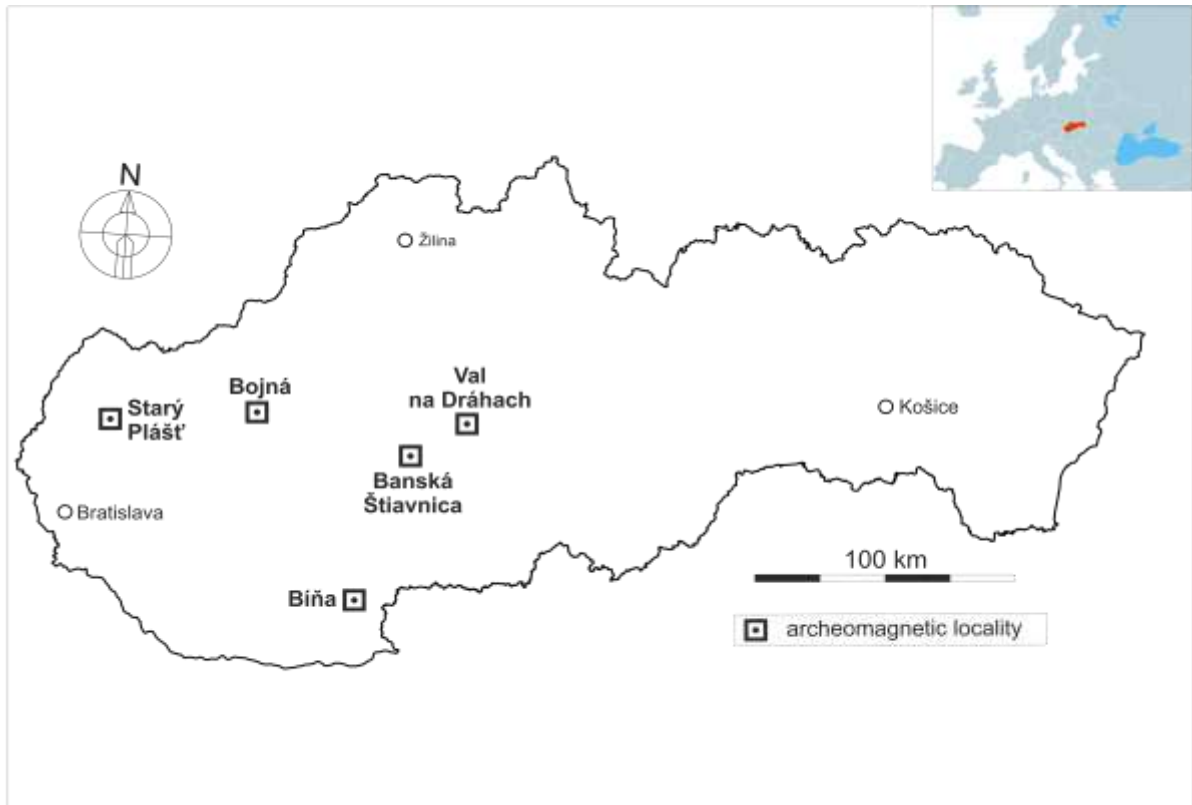


Figure 1: Investigated archeomagnetic localities.

References :

Bucha V., 1975: Geomagnetic field and its contribution to clarifying the evolution of the Earth. (in Czech), Academia, Praha

Krs, M., 1969: Paleomagnetismus. Ústřední ústav geologický – Geofond, Praha

Thellier E. & Thellier O., 1959: Sur l'intensité du champs magnétique terrestre dans le passé historique et géologique. *Ann. Géophys.*, 15, 276-285

Túnyi I., Hovorka D. & Orlický O., 2006: Archeomagnetic dating of the neolithic ceramics from the western Slovakia. *In service to archeology*, 7, 142-147