

Archeomagnetic study of Takabatake ruins and Wada-taishido ruins in Matsumoto city

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This study presents some archaeomagnetic directions from burnt sediments at Takabatake ruins (site TK2~4) and Wada-taishido ruins (site W1) in Matsumoto city, Japan. Compared with the secular variation curve in Japan (Hatakeyama et al., in prep.), archaeomagnetic dating and local magnetic anomaly will be discussed.

As a result of our study, reliable archaeomagnetic directions were obtained. The abandonment of TK2, TK3, TK4 and W1 has been dated to 1025 ± 25 AD, 1015 ± 15 AD, 1075 ± 50 AD and 850 ± 50 AD, respectively. Declination values of our data were almost one or two degrees smaller than those of the secular variation curve in Japan. The present field around the studied area show smaller declination (GSI, 2010.0). Local magnetic anomaly resulted from non-dipole component around the studied area possibly continue in the past several thousand years.

Keywords: Archeomagnetism, Geomagnetic secular variations, non-dipole component, thermal remanent magnetization, depositional remanent magnetization, ruins