



## **Archaeology and archaeomagnetism in Wallonia (South Belgium); 30 years of partnership thanks to Prof. Dr.J.J.Hus**

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Amongst the multiple scientific activities of Prof. J.J. Hus one cannot deny major centres of interest in archaeology and our cultural heritage: in the footsteps of Prof. E. Thellier in France he applied to archaeology the principles of palaeomagnetism. His main objective was to establish reference curves for the secular variation of inclination and declination of the geomagnetic field during archaeological periods of time for a limited area that is Belgium: in order to improve our knowledge of the geomagnetic field but also for archaeomagnetic dating. He was the first to propose archaeomagnetic dates for kilns discovered in Belgium, based on the master secular variation curves for France and the United Kingdom. He insisted on the importance of the fidelity of archaeomagnetic field records by studying the influence of magnetic anisotropy, magnetic refraction and interaction on the magnetization direction of baked and burnt structures. Due to field recurrence archaeomagnetic dating yields several dates. In order to limit the number of solutions he examined together with Dr. Simo Spassov in the frame of the European project AARCH, the suitability of burnt materials of different nature for field intensity determinations.

For the Belgian archaeologists who had the pleasure to collaborate with Prof. J.J. Hus in many excavation and rescue sites (about 350 structures sampled in 85 localities in Wallonia) the objective now is to provide independent datings for the structures sampled and hence of the corresponding occupation levels.

Besides archaeomagnetism he promoted the use of geophysical prospection methods in archaeology as a non-destructive aid for a better comprehension of the overall pattern of occupation and history of a site and to orient excavations towards these zones likely to give the most important information. He implemented successfully many electrical resistivity and magnetic prospections with archaeologists and the "Centre Interdisciplinaire de Recherches Aériennes (CIRA-ICL)" in which he was very active and that organised two international symposiums on "Aerial Photography and Geophysical Prospection in Archaeology".

Geophysical prospecting, the sampling of burnt structures, laboratory analyses and publications marked out the course of his outstanding career and enriched the knowledge of Belgian archaeologists, for instance for the interpretation of new sites and absolute dates in particular for the Roman and Mediaeval periods.