The project aims at building up a typology of Roman, Merovingian and Carolingian sites in order to throw new light on unexpected territorial appropriation behaviour in the Vesdre drainage basin. With this scope, the work consists of elaborating a critical, digitalized and geo-referenced inventory of the archaeological sites. Their spatial and temporal connection with environmental data will, first, allow the extraction of appropriate contextual information, and subsequently clarify some important criteria for the old-settlements implant process. Actually, at first sight, the better known for its neolithic settlements Vesdre basin wasn’t very busy during Late Antiquity and the early Middle Ages. However, the archaeological data’s systematic record, uncovered since the eighteenth century leads us to revise that opinion.

Geographical Characterization of antique and early-medieval sites in the Vesdre basin (Belgium)

Muriel van Ruymbeke

The inter-visibility analysis of a funerary and worship fortified site situated on the « Chevremont » hill shows a special relationship with the place of Liège, where the bishopric seat has been settled since the beginning of the eighth century. By overlaying the antique road system map with the antique smelting map, we are tempted to see a new explanation for the appearance of a late-Roman or early-medieval via in a lonely and inhospitable place: the « Hautes Fagnes » table-land. That assumption is supported by a recent study on a peat column taken nearby that road, which disclosed very high Zn concentrations associated with peaks in lead concentration. Such high concentrations clearly reflect a local pollution linked to the road. ( DE VLEESCHOUWER F. ET ALII, Atmospheric lead and heavy metal pollution records from a Belgian peat bog spanning the last two millennia: Human impact on a regional to global scale, in: Science of The Total Environment, Volume 377, Issues 2-3, 15 May 2007, p. 282-295.)

At that stage, temporal data are managed as attributed data. Actually, each archaeological record has an intricate temporal component: building period, use and disuse periods, possible transformation or disappearance periods. Moreover, some other fields of records contain their own temporal limits (for example: functions: major, minor, incidental, symbolic, possible reassignments. People: backer, master-builder, designer, artist, artisan. Creation constraints: cultural traditions, technical customs, religious and or, political musts. Documentation: bibliography, iconography, …). But the most important difficulty to pass beyond is the disparity of the temporal data’s accuracy. That variability compels us to find the lowest common denominator and to reduce the temporal resolution.

Temporal data management

By overlaying the antique road system map with the antique smelting map, we are tempted to see a new explanation for the appearance of a late-Roman or early-medieval via in a lonely and inhospitable place: the « Chevremont » hill shows a special relationship with the place of Liège, where the bishopric seat has been settled since the beginning of the eighth century.

Output: spatial analysis examples

On the other hand, an additional temporal question lies in estimation and digitalization of the environment’s modifications.