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GIS and vector cadastral map: a tool to detect and study Roman cadastral frames

The French Rhône valley has traces of ancient Roman parcels, testified by antique land registers. This organization was highlighted by the "Orange cadastre". This organization was highlighted in the Tave and Cèze valleys. All these researches were conducted in the 80s from IGN (French National Institute of Cartography) aerial missions, with the method of optical filtering. In this study, we intend to use a GIS and the cadastral map in vector format.

In this study, the tool used is the histogram of directions. It consists in calculating the azimuth of each parcel boundary - and drawing a histogram of the number of boundaries or their total length are shown as a function of azimuth. The interests of working with the cadastre are all information contained in these documents, whose precision allows a detailed study of cadastral frames.

This method was first validated on previously studied areas and then extended to the Cèze and Tave lower valleys. This helped to detect the presence of "Orange cadastre" in these two valleys, where the method by optical filtering had not delivered convincing results. The use of these vector data for the detection of ancient cadastral frames remains to this day unique in France. However, its implementation is simple and permits a detailed study of the boundaries structure. The results are encouraging and allow considering new approaches. It would be interesting to combine elevation and topographic data as well as ancient "Napoléonic cadastre", in the aim to eliminate 19th and 20th century boundaries. This will be the next step of this work.

References
Veilleux (J.M.W.), Computer aided projection of part of the Orange B cadastre to Cèze valley, in Dialogues d'histoire ancienne, vol. 18, n°1, 1992, p. 169-176
FAVORY (F.), CHARRAUT (D.), De la carte topographique à l'analyse d'images: méthodologie de l'identification des limites antiques, in Revue Archéologique de Narbonnaise, 26, 1993, p. 19-56
PETERSON (J.M.W.), La carte topographique et le Vaucluse rhodanien, A. Roumégous et alii, 2009, p. 88-100