
Parallel coordinate plots in archaeology

Irmela Herzog¹ and Frank Siegmund²

¹ LVR-Amt für Bodendenkmalpflege im Rheinland, Germany i.herzog@lvr.de

² Basel University, Switzerland frank.siegmund@bluewin.ch

Abstract. Parallel coordinate plots (PCPs) can be applied to explore multivariate data with more than three dimensions. This visualisation method is straightforward and easily intelligible for people without statistical background. However, to our knowledge, PCPs have not yet been applied in archaeology. This paper will present some examples of archaeological classifications which are clearly visible in PCPs. For this purpose a program has been written which offers some additional options which are not supported in standard software for PCP generation. Some of the functionality of Geographic Information Systems (GIS) was introduced for PCPs: This program is able to create a thematic display based on a user-selected variable, optionally multiple plots highlight each thematic colour. Another variable may control the breadth of the PCP lines. Moreover, an info-tool, zoom, and a find-function are supported. The resulting graph can be saved in SVG format and in a GIS format.

References

- COOK, D. AND SWAYNE, D.F. (2007): *Interactive and Dynamic Graphics for Data Analysis: With R and GGobi (Use R)*. Springer, 24- 34.
- SIEGMUND, F. (2000): *Ergänzungsbände zum Reallexikon der Germanischen Altertumskunde, Band 23: Alemannen und Franken*. De Gruyter.

Keywords

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