Supplementary figures

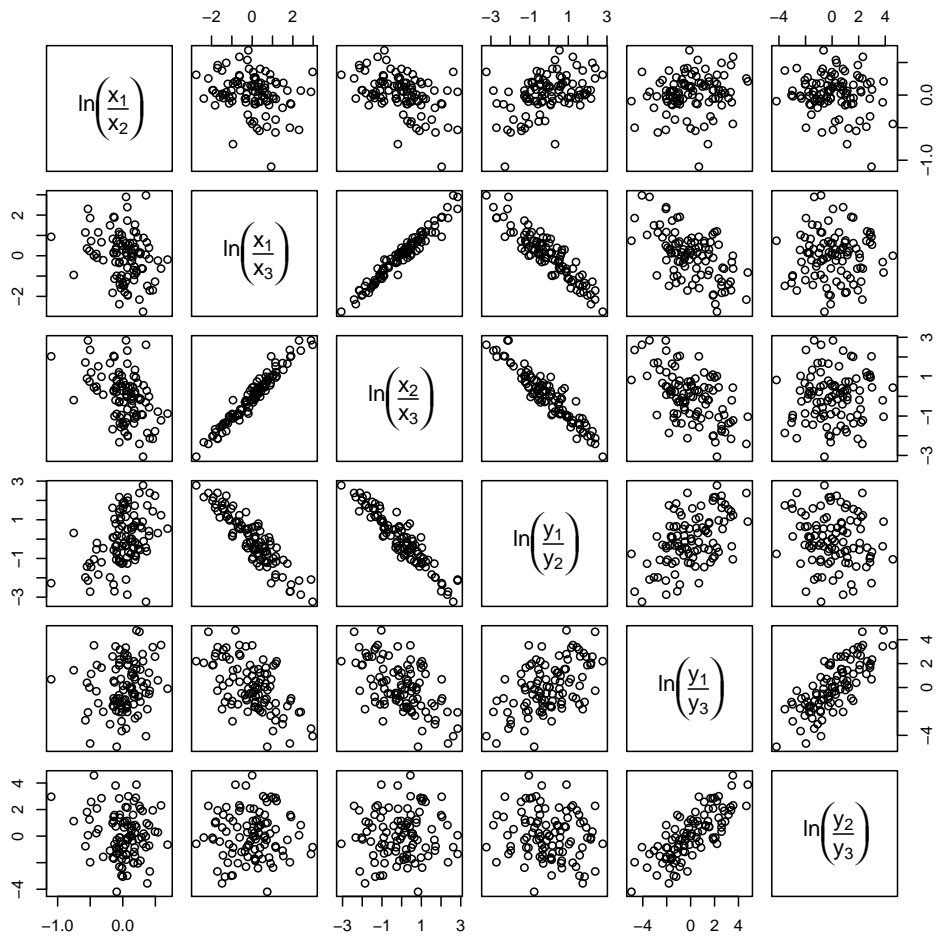## Scatterplot matrix of pairwise log-ratios of artificial 3-part compositions

Figure S1: Scatterplot matrix of all log-ratios of two compositions of three parts.

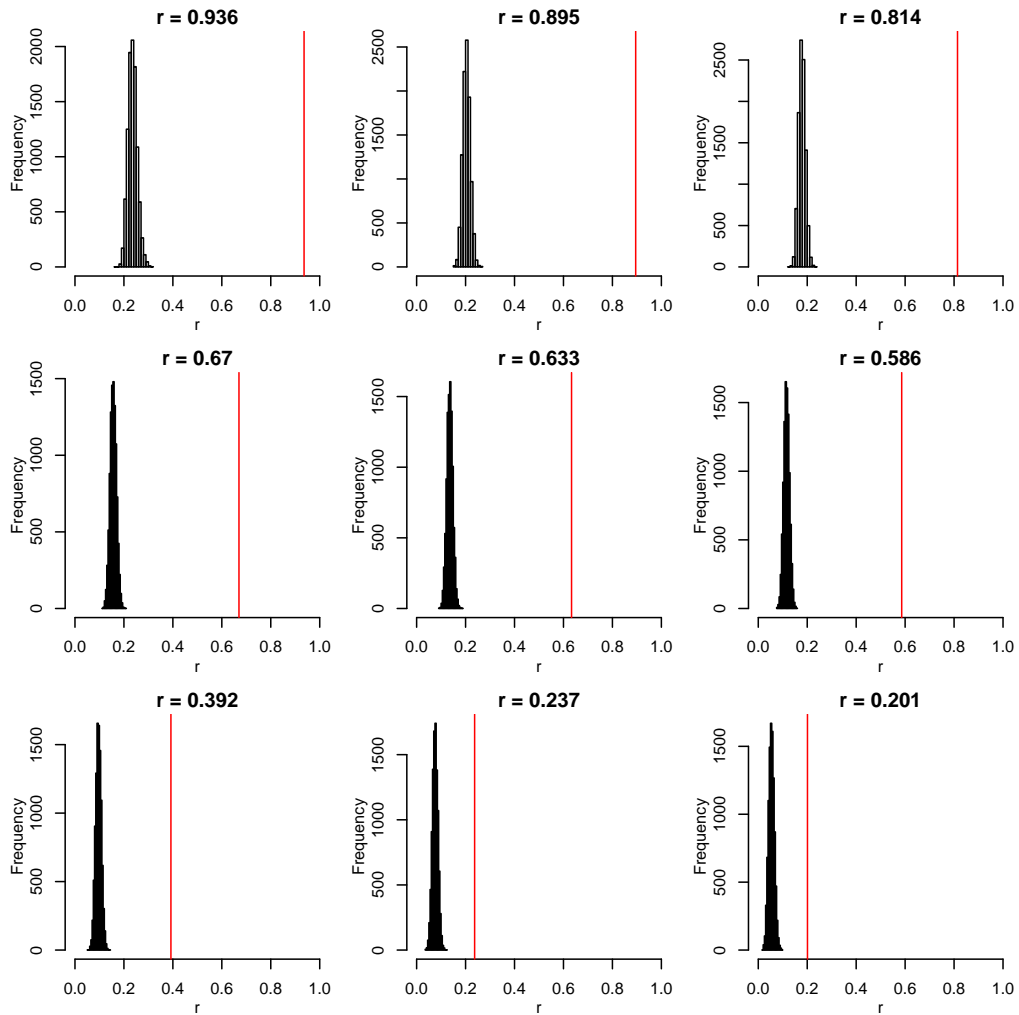# Results of permutation test for European floodplain sediments

Figure S2: Permutation test of nine canonical correlations obtained in a CoDA-CCO of oxides and trace elements of European floodplain sediments. Histograms show the distribution of the canonical correlation obtained in $10,000$ permutations of the data. The vertical red line indicates the observed sample canonical correlation.

Scatterplot matrix of selected pairwise log-ratios for European floodplain sediments.
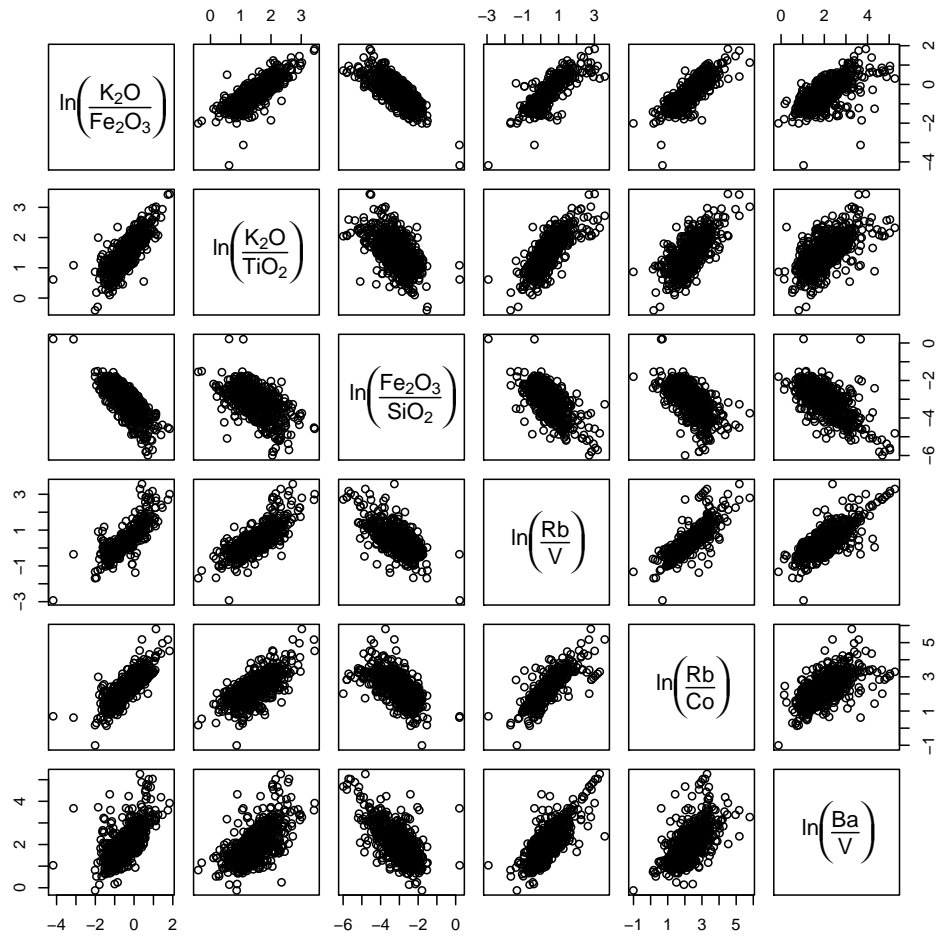

Figure S3: Scatterplot matrix of log-ratios of major oxides and trace elements of European floodplain sediments related to the first canonical variate.

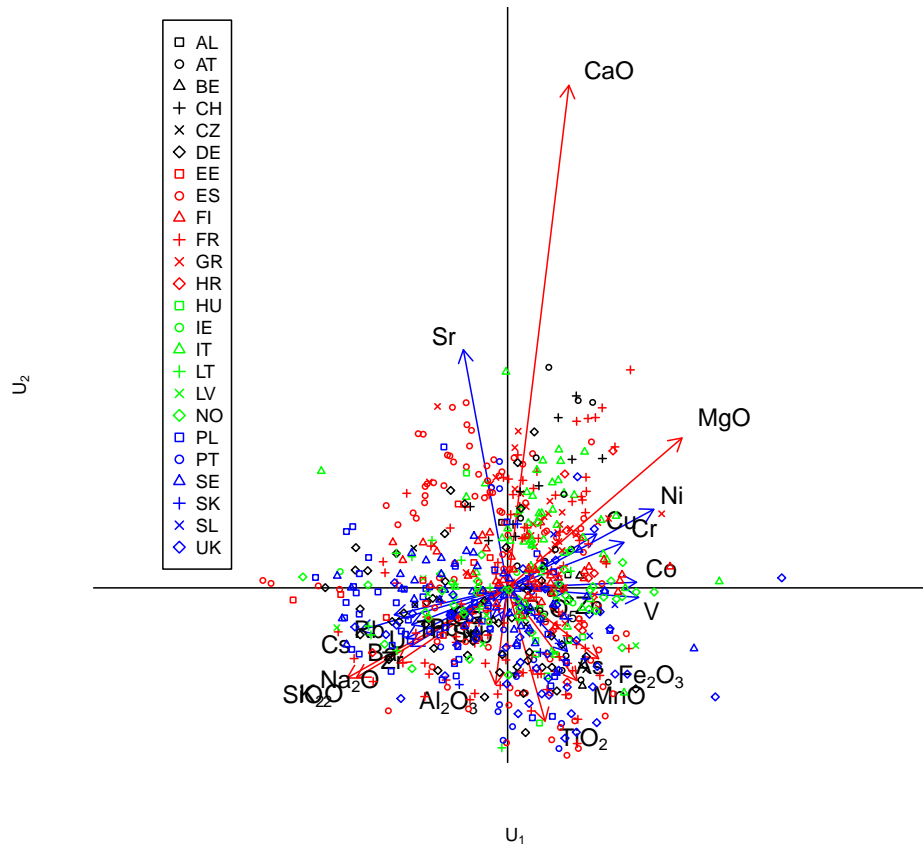# Biplot enhanced with samples for European floodplain sediments.

Figure S4: Biplot of CoDA-CCO of major oxides and trace elements of European floodplain sediments, with added samples. Symbols and colour are used to indicate country of origin.

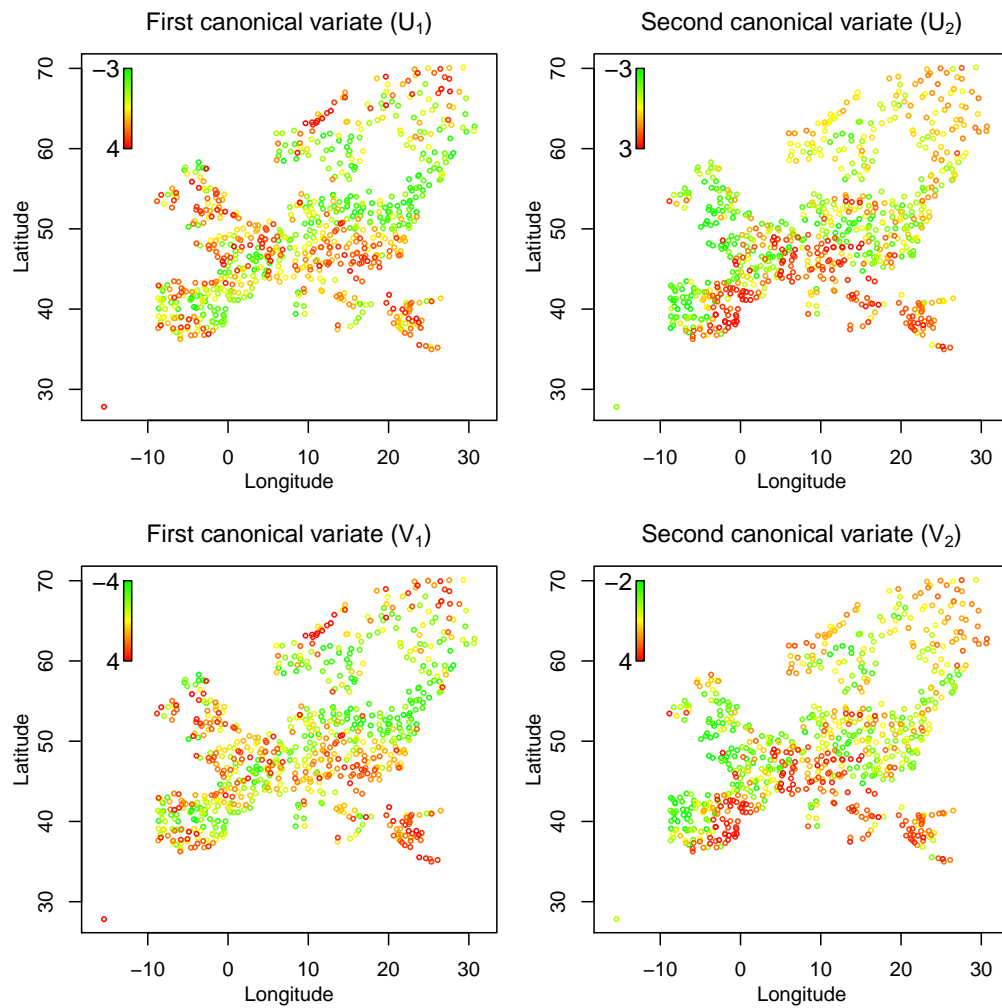# Geospatial map of canonical variates for European floodplain sediments.

Figure S5: Geographical map of the samples, coloured according to the values of the canonical variates of oxides (U_1 and U_2) and traces (V_1 and V_2).