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The complete picture: combining palynological, cultural and landscape data to reconstruct palaeovegetation patterns.

Marjolein T.I.J. Gouw-Bouman (1), Hanneke A.A. Bos (2), Harm Jan Pierik (1), Roy van Beek (3), and Wim Z. Hoek (1)

(1) Department of Physical Geography, Utrecht University, Utrecht, The Netherlands, (2) ADC Archeoprojecten, Amersfoort, The Netherlands, (3) Centre de Recherches Historique de l'Ouest (CERHIO), University of Rennes, Rennes, France

Present day vegetation patterns in Northwestern Europe are the result of the interaction between the abiotic landscape, human interference, climate and vegetation. Often, palaeovegetation reconstructions are only based on palynological data. When reconstructing past vegetation patterns, the abiotic landscape and archeological data can provide additional and very useful information. Especially, in geomorphological dynamic and heterogeneous areas these data can be used to reconstruct vegetation patterns in between palynological data points. In the Netherlands numerous detailed palaeogeographical maps and a rich archaeological record are available. To use these data for a regional vegetation reconstruction a new interpretative method was developed which reconstructs the distribution of past vegetation communities on the basis of the reconstructed geomorphology. The method is applicable in all regions where there is sufficient information about the abiotic landscape and its development, archaeology and a good coverage of palynological data. The method was applied in a heterogenous Weichselian coversand region, Twente, in the eastern part of the Netherlands and in the dynamic Holocene Rhine-Meuse delta in the central part of the Netherlands. The method is both applicable to visualize long-term vegetation dynamics as short term shifts.