



Frost, Droughts, and Sunshine: Seasonal Reconstruction of Temperatures and Precipitation Based on Documentary Evidence in the Burgundian Low Countries during the 15th Century

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In recent years the climate of the Late Middle Ages achieves more and more attention. Reconstructions made by historical climatologists are based on historical sources. For this paper, mainly narrative sources like chronicles, annals, journals, or memoires providing descriptions of weather conditions have been analysed. The area of the Burgundian Low Countries (modern Belgium, the Netherlands and parts of Northern France) during the 15th century offers a satisfactory number of sources since a sufficient source density and reliability are crucial for a climate reconstruction covering this period.

In order to classify the collected descriptions, indices established by Christian Pfister und Rudolph Brazdil have been used. It was possible to choose a seasonal resolution of temperature and precipitation indices since the source density is sufficient.

This research demonstrates very clearly the advantages and limits of the used data and methods.

The results of the reconstruction show remarkable weather conditions during the 15th century. In particular the 1430s, a period characterized by a sequence of very cold winters, or the rainy summers at the beginning of the 1480s and 1490s stand out. In some years like 1408/09 (a winter with extremely low temperatures) and 1473 (a year with an extremely dry summer and autumn season) the weather conditions were so extraordinary that only a few comparable examples are known during the last millennium.