

*Thank you for you very much for your constructive critique and comments!*

A few specific comments:

Chapter 3: Homogenisation. Fig 4 is important but is not very well readable as it is now. The figure needs to be improved.

*Could you specify what exactly makes the figure unreadable?*

3.3 lines 2-3: "Figure 5a demonstrates that Basel WPD series nicely fits into the distribution of altitude depending mean harvest dates of the high quality PNO observations".

The altitude may be only one factor, if it is so that the different sources cover different time interval it may happened that the temperature is different for different periods and thus may disturb the harvest date/altitude relationship. It should be made clear whether the data from the different sites cover the same time interval. If not the issue should be discussed in the Ch 5 Discussion.

*You are right. It is not the same time interval. The high quality PNO series originate from the 19<sup>th</sup> century, whereas the Basel WPD covers the time period from 1454-1705. I do not really believe in the temperature difference theory. Because the 31 year mean harvest dates do not significantly change between 1454 and 1705 (which is quite a long period) and we further have now an explanation for the difference of the mean harvest dates between the two outlier HPD and the Basel WPD/PNO series. The outlier series have probably been harvested by scythe, whereas the other series were harvested by sickle. This difference of harvest technique makes a significant difference in the mean harvest dates. We will include this explanation in the final text.*

3.5 lines 18-22: "Calibration was done during the 1774-1824 : : : when anthropogenic influence is assumed to be marginal". Why is anthropogenic influence on temperature important in this connection? May be a later calibration period should be chosen as probably also the early instrumental observations may be less accurate during this early period? However, the calibration period should be prior to the period of modern agricultural methods.

*You are right, this argument (anthropogenic influence on temperature) is not necessary and I will delete this sentence. The calibration period 1774-1824 is one of the best (I tested several intervals) and I would like to keep the chosen period. The problem of accuracy of the early instrumental temperature series was intensively discussed and was taken into account (it was homogenised) by the authors of the HISTALP temperature anomalies. In general the HISTALP series has become as the standard for temperature reconstructions in central Europe.*