

Interactive comment on “Spatio-temporal variability of Arctic summer temperatures over the past two millennia: an overview of the last major climate anomalies” by Johannes P. Werner et al.

Johannes P. Werner et al.

johannes.werner@geo.uib.no

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As commented by Nick McKay, the trends over Greenland (1-1850 CE) contradict other evidence. He suggested that some of the proxy records (the ice core data) was likely flipped during the reconstruction. We found that indeed, the ice core and lake sediment data were flipped, though not in sign but in direction (ordering in terms of age or year CE). As this was consistently done with all of the ice cores, the trend over Greenland was essentially inverted in time (also pers. comm. to the editor).

We have now fixed this issue, see the attached figure. The trend is colour-coded, with the proxies going back to at least the first century CE marked on the map. We will

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address the changes in the revised version of the paper.

Remark: While the proxy network before about 750CE is too sparse to get a meaningful reconstruction over the whole domain, the reconstruction at or close to the proxy locations (within about 1500 km) should still be skillful (see the methodological papers by Tingely and Huybers 2010, or the paper of Werner et al. 2013). This will be discussed (and visualised better) in the revisions.

We are grateful for getting the chance of revising the reconstruction accordingly, and for the patience of the editors (article and SI) and reviewers.

For the authors, Johannes Werner

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2017-29>, 2017.

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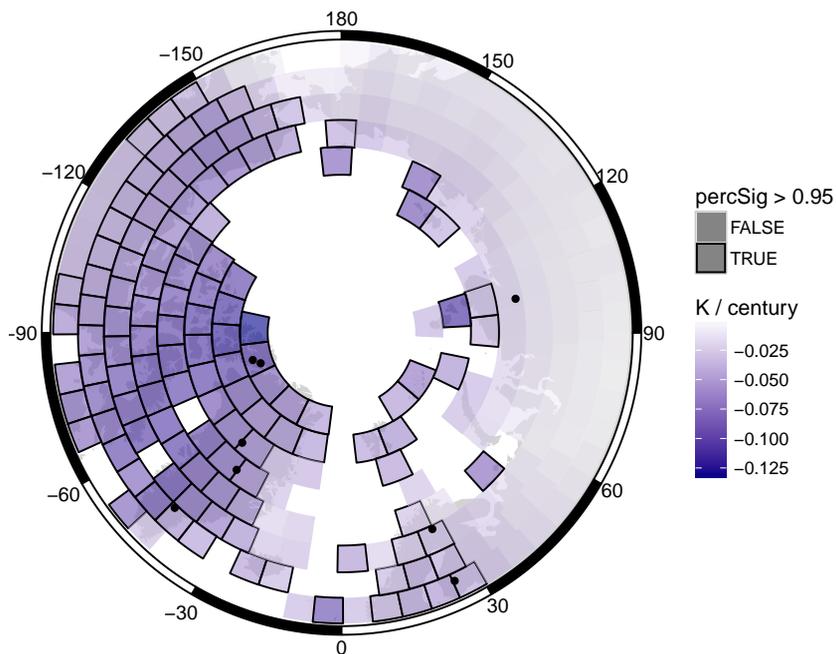


Fig. 1. Trends over the first 1850 years of the reconstruction. Proxy sites with data going back into the first century CE are marked with dots.