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Climate of the Past Discussions

Interactive comment on "Linking catchment hydrology and ocean circulation in Late Holocene southernmost Africa" *by* Annette Hahn et al.

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This paper thoroughly documents an important new offshore palaeoclimate datapoint for southern South Africa. The results are based on sophisticated analytical methods and are well explained so that also non-specialists can understand their climatic signficance.

One minor point is the age of the onset of the Medieval Climate Anomaly (MCA) in this dataset. In Chapter 5.2.2 the authors describe the onset of the MCA at 1,150 yrs BP (corresponding to 800 AD). In Fig. 5, however, the MCA is marked as beginning at 950 yrs BP (1000 AD), which fits with the onset of increased fluvial activity and the upwelling-related temperature drop. The MCA start date in the text may need to be changed.

I really like the MCA palaeoclimate map in Fig. 8. This illustrates the processes in a transparent and effective way. The authors present suitable temperature and hydroclimate data by Chase et al. 2013, Talma Vogel 1992 and Wündsch et al. 2016. It is noteworthy that a number of other studies in southern Africa support the trend towards more humidity during the MCA. The studies are marked by green (=more humid) dots on the following online map of an African-wide MCA literature-mapping project:

http://t1p.de/mwp

https://www.researchgate.net/project/Mapping-the-Medieval-Climate-Anomaly

Other South Africa data points with wet MCA:

Scott et al. 2005: Blydefontein basin, Kikvorsberge

Brook et al 2015: Wonderwerk Cave

Neumann et al 2014: Core M11, Mahwaqa Mountain, KwaZulu-Natal

Norström et al 2009: Core AH1, Braamhoek Wetland, Free State

Stager et al 2013, Neumann et al. 2008: Lake Sibaya, KwaZulu-Natal

Woodborne et al 2015: Pafuri area, northern South Africa

Mozambique:

Ekblom Stabell 2008: Lake Nhaucati

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