

Clim. Past Discuss., referee comment RC2
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Comment on cp-2021-148

Joseph Manning (Referee)

Referee comment on "Climatic, weather, and socio-economic conditions corresponding to the mid-17th-century eruption cluster" by Markus Stoffel et al., Clim. Past Discuss., <https://doi.org/10.5194/cp-2021-148-RC2>, 2022

Recent advances in Paleoclimate proxy data resolution, and in particular the advances in ice core Geochemistry that allows for far more precision in the dating of explosive volcanic eruptions have now allowed climate historians to integrate this more precise climate data with precise, annual or sub-annual, historical records. This is creating, not the old climate determinist historians, still so often criticized, but a new climate history that integrates more spatially and temporally precise climate records with specific kinds of human responses. This kind of work requires a large, specialized team, of scholars. This article represents the very best of the new climate history. It is a model to be followed.

The paper shows how volcanically forced cooling interacts with natural climate variability and societies under various kinds of stress. It is global in its coverage, treating northern, western and central Europe, and China and Japan as well, during the Little Ice Age (LIA), about which much has already been written. The general conclusion that it would be wrong to simply isolate volcanic eruptions, even a cluster of eruptions as here, or the Maunder Minimum, as the driving force of abrupt climate change and the various societal responses across a wide range of societies. Both the societies treated here and the global climate system were far more complex, and it is this complexity that is highlighted. Indeed the conclusion here is that it is, at minimum, difficult to directly attribute to the mid-17th century eruptions any major role.

LINES 470-471- it would be useful to consider Fabian Drixler, Mabiki Infanticide and Population Growth in Eastern Japan, 1660-1950. California, 2013 on causes of infanticide in Japan

LINE 480- Better to cite as East African Monsoon (EAM)?