

We appreciate the perspective of the Editor and the fair handling of what turned out to be a rather contentious manuscript (to our surprise!). We have made final revisions in accordance with his suggestions.

First in the special issue there is no 4.2ka convention but 4.2 ka is used (this applies also to other similar events like 8.2).

Perhaps so, but it seems clear that readers who are attracted to a Special Issue on “*The 4.2ka B.P. event*” must expect to find research that demonstrates something unusual occurred *at that time*. In some papers that I reviewed, authors were referring to a “4.2ka BP” event, but their anomalies were centuries later (& not because of an uncertain chronology). We did not focus on late Holocene climatic anomalies in general, but on a very specific “event” that originated with Harvey Weiss’s work on the Akkadian collapse. To understand the broader significance of that “event”, we need to be quite precise on the temporal and spatial dimensions of what happened. I hope the collection of papers will help shed light on that, but the assessments need to be objective. The goal is not to prove a pre-conceived idea.

At line 31 some citation are necessary (why not Weiss 2016 or similar?)

Citation to the review by Weiss (2017) has been added

Line 69: just a comment: from the showed records also the 8.2 vent is not always represented...
OK—fair point

Line 96-97 from the text alone it is unclear which is the paper related to this well-resolved and well-dated records (is Berner et al., 2011?) Please clarify.

Sorry—citation to Sejrup et al., 2011 has been added

3.2 Iceland. It was important to insert this part. But probably it should be necessary spend few more words somewhere on why here it is reasonable to think that some evidences are present.

OK—we have added this preamble to the text:

“*Iceland is in a central location to experience major changes in the major oceanic and atmospheric circulation patterns of the North Atlantic*”. We also amended the last sentence, thus:

“*Of the two lakes in NE Iceland that did not have a tephra in the sediments, one (Skoravatn) shows an abrupt change at 4.2ka B.P., while the other (Tröllkonuvatn) does not, making it difficult to draw conclusions about the impact of the eruption on changes recorded at that time*”

In general one reader would be very happy if the authors (very short eventually) try to draw inferences about why in this area the 4.2 event is neither particularly visible nor particularly prominent. I totally agree with Weiss considering the fact this event is evident in other regions, and I also agree with the authors that the absence in some region can help in understanding better the origin of this event. A short conclusion on that is probably necessary.

OK. We have added this to the conclusions:

“*Given that the northern North Atlantic is a key region for the formation of deepwater, which has consequences for the overall global oceanic circulation (the “conveyor belt”), the absence of a strong signal of an abrupt climatic event at 4.2ka B.P. suggests that—whatever the cause of changes seen elsewhere-- it is unlikely that the North Atlantic Ocean circulation played a driving*

role. If this conclusion is correct, it requires that the cause of the 4.2ka BP event be sought elsewhere, in terms of direct radiative forcing (possibly due to explosive volcanic events, or earth surface aerosols resulting from aridity or—[less likely]-- solar forcing). Currently, none of these possibilities provide a compelling argument. The alternative is that the observed changes were a consequence of internal climate system variability, perhaps modulated by the overall decline in summer radiation across the northern hemisphere due to orbital changes, which are generally considered as the cause of neoglaciation in the late Holocene, the onset of which roughly corresponds to the 4.2ka event as described by Weiss (2017)”.

Figure 1 is not particularly informative and the caption is rather poor. Please add some information on the oceanic currents and in the caption information on the symbols (including references) is mandatory.

OK—done. The symbol colors were linked to those in Fig 2, but this was not very clear so we numbered them & added the main ocean currents.

Finally I agree with RC1 a figure showing some of the records discussed (selected by the authors is OK, but it is difficult to follow without any figure) in the text will improve the “pleasure” of the reading.

We think the revised Figure 1 now satisfies the request of RC1. A new Figure 5 identifies the location of terrestrial sites mentioned in the text and figures.

I recommend adding a figure 5 including some records quoted in the text, which the authors indicate as more significant. Possibly adding a record, which show the event. Like from Iceland? See note above. We think a reader should now be able to follow the discussion of sites with a strong (or absent) signal, by reference to Figure 5.