

Interactive comment on “OCTOPUS: An Open Cosmogenic Isotope and Luminescence Database” by Alexandru T. Codilean et al.

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Received and published: 20 June 2018

Dear Alexandru,

Thanks for your detailed answer. Please find my response below; if I did not reply to specific points, I was okay with your answer or did not feel the need for further comments.

1. *"The main difference between the aeolian database presented by Lancaster et al. [...]"*

But the reader should know about it, right? Otherwise one might get the impression that your database is the first attempt, which is not the case. Besides,

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what makes you believe that *'[...] neither of these could be investigated spatially'*? Might be true for AustArch, I don't know, but the Dune Atlas comes with a KML-file and all the spatial information. Combined with GoogleEarth you have something similar (not the same) to your database.

2. *"It was never our goal to produce something that makes everyone happy"*

This was not my point, indeed I prefer a more rigour concept than a melange of unfinished tries. But linking this to my comment where I asked about the future of OCTOPUS and an API, I guess this is something that would boost the value of your database, and it should be easy to accomplish. To me, such outlook and general discussion(?) belong to a scientific manuscript. Anyway, I'm not a reviewer and I will have a look at your response to Greg Balco's review which appears to be rather solid and better thought than my comments.

3. *"The statement that references have a strong bias towards studies in Australia is actually not true."*

If 3 out of 5 given references (your manuscript lines 13 to 15, page 4) deal with sites in Australia, I would call it a 'bias' (strike the word 'strong'). However, this was not my point: The references you give you don't need. I had the impression that you just dropped them because it was what you had at hand. If you want to provide references on methodological aspects, you should cite papers published in relevant journals of the luminescence dating community, for instance, Quaternary Geochronology, Radiation Measurements, Geochronometria, Boreas, ... (there are also books out in the wild); review papers would be of advantage for the reader since they would get a much better insight.

I may also link this to your reply on the paragraph about 'bleaching and age models'. If this section is meant for readers with no background, then I, even more, recommend removing this paragraph entirely. You already gave the justification for it: "The full data set provides and assessment of aspects, like age models

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used, number of grains analysed and other parameters such as overdispersion." Without having the parameters of the models and the full dataset at hand, it tells nothing, and it does not help to assess whether the dataset is solid or not. Means: If you expect the readers being none experts, your paragraph will not help, but will probably lead to wrong conclusions. Also, the references are ok, but they do not give a good overview of the models, advances, and weaknesses. Now you can argue that this is beyond the scope of the manuscript, and I do agree, and for that reason, you should remove this paragraph.

4. (ii) *Wildfires – replace with aboriginal hearths*

Just 'fire' would have done it. Before you used a general process 'sediment transport' for reset by sunlight and then you went down to 'bush fire' for giving an example for heating. It was not logic. Now it is even more specific. Ok, but up to you.

5. (3) *"Page 4 Line27 fine grains = < 63 microns. We will clarify this in the text."*

If you talk about 'fine grain' in the context of luminescence dating, the grain size range is 4–11 μm . However, I guess you refer in general to grain size classes; which would also work. You also talk about 'longer' exposure times The problem is the unprecise wording used (for a scientific manuscript). Please try to use a more precise language, the relevant information is available in the literature and adding them would be of benefit to the readers.

Besides, all of the points listed above, except the first point, are minor issues and I do not expect another reply. You follow them up or not; your decision.

Good luck with your project and the manuscript!

Best regards

Sebastian Kreutzer

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Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2018-32>, 2018.

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