

Comments on Revised manuscript GMD-2018-129

The revised manuscript is clear, well written, and the figures convincingly demonstrate the approach. The revised work does an excellent job of documenting the algorithm for interactively and automatically updating ocean bathymetry and coastlines for long-term transient earth system simulations. It represents a monumental step forward for paleoclimate modeling and should be published with a few remaining minor tweaks.

Minor comments:

- 1) Line 20: "...brick stone ..." *Brick stone* does not convey a metaphorical meaning in English. I suspect it is a direct translation of a more meaningful phrase or word in the native language.
- 2) Line 63: Liu et al. 2009 updated the ice sheet topography about every 1000 years, and the land-sea mask at longer and fewer irregular intervals over the deglacial period, not uniformly 500 years as written here.
- 3) Line 114: "Sea ice is swimming in the water." Remove line as use of "swimming" is incorrect here and the line is probably not necessary anyway.