

Interactive comment on “Uniform grain-size distribution in the active layer of a shallow, gravel-bed, braided river (the Urumqi River, China) and implications for paleo-hydrology” by L. Guerit et al.

R. Hodge (Editor)

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Received and published: 25 July 2018

We have now received two thorough reviews of your paper, which are both supportive of the paper. The reviewers agree that the question of whether grain size distributions (GSD) from vertical outcrops are equivalent to those measured from horizontal surface is a useful question to ask, and has implications for interpreting paleohydrology. The reviewers do, however, also provide you with many useful comments on how you can improve aspects of this paper.

C1

One potential weakness that is identified by both reviewers is that you could use more statistical analysis to justify your interpretations. The two reviewers both give useful suggestions as to how this could be done, and I would encourage you to take these on board. Reviewer 2 also suggests that you could consider more the entire GSD, rather than just certain percentiles of it.

Given that a justification of this work is the application to sedimentary deposits, both reviewers observe that you could say more in the discussion about the processes that can affect the GSD of sedimentary deposits post-deposition, and more broadly consider the differences between this study of modern sediments and application to paleo deposits.

Reviewer 1 also suggests that the paper would benefit from some restructuring, and consideration of how the three different grain size analyses map onto the two identified hypotheses.

Best wishes, Rebecca Hodge

Interactive comment on Earth Surf. Dynam. Discuss., <https://doi.org/10.5194/esurf-2018-43>, 2018.

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