

Interactive comment on “Geomorphic signatures of the transient fluvial response to tilting” by Helen W. Beeson and Scott W. McCoy

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I apologize for not including this in my earlier comment. This final note is related to the confusion about which river, exactly, the authors were analyzing. Whether they analyzed the Middle Fork or the Rubicon is critical because the upper watershed of the Rubicon was glaciated down to an elevation of \sim 1000 m during the Last Glacial Maximum whereas glaciers only came down to \sim 1200 m on the Middle Fork. This means that the upper \sim 50 km of the river shown in Figure 10a would have been affected by glaciers. I don't think that glaciers significantly affected the long profile of the Rubicon itself, but valley widening by the glaciers would have altered the profiles of its tributaries (Zimmer and Gabet, 2018) which would scramble attempts to extract uplift information from those profiles. For the Rubicon valley specifically, our data show that it is more

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U-shaped upstream of the LGM boundary, suggesting that it was widened by glaciers. If the authors are interested, I can send them the ARC layer that we created to explore glacial modification of these valleys.

Zimmer, P. D., and Gabet, E. J., 2018, Assessing glacial modification of bedrock valleys using a novel approach: *Geomorphology*, v. 318, p. 336-347.

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