

The authors have obviously done a lot of work to address reviewer concerns, and I think the paper is much improved for their revisions. Their addition of more 1 and 2-D model results under a wider variety of conditions, especially for non-instantaneous tilt strengthens their conclusions quite a bit. I also appreciate the addition of the Sierra San Pedro Martir case study, which is nice to see given the discussion around Sierra Nevada tectonics. Since the conditions that can produce a particular river profile are nonunique, additional data showing river response to tilting under a wider variety of circumstances make the authors' conclusions much more convincing. I saw just a few minor errors/points of confusion.

Page 21, lines 6-7: Should this say "the vertical bed of less erodible rock"?

Page 25, line 26: mainstem

Page 26, lines 3-5: To what part of Figure 8 is this sentence referring? The river flowing toward the upper left that gets captured?

Figure 16: I'm a little confused by the pre-capture flow path label, it looks like it was originally flowing in the opposite direction?

Page 44, lines 23-24: This 3 Myr figure is dependent on parameter values, right? Maybe should specify that 3 Myr was specific to your model runs?