

# ***Interactive comment on “Delayed and rapid deglaciation of alpine valleys in the Sawatch Range, southern Rocky Mountains, USA” by Joseph P. Tulenko et al.***

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Thank you for this nice contribution on glacier dynamics. In the introduction you state that "mountain glacier deposits serve as suitable archives since mountain glaciers are particularly sensitive to changes in climate". As we all know, this is mostly due to their short response time to climatic variations. One major problem is, however, that factors other than climate, such as topography, may lead to glacier advances or stationary periods of (small) mountain glaciers during a general trend of climatic amelioration. Examples are widespread in the literature, see Lukas et al., the Holocene (<https://doi.org/10.1177/0959683607078983>) for an example. In the discussion you

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mention that the valley hypsometry may have led to a different pace of deglaciation in the valleys. You argue, however, that this influence should be regarded as negligible. Could you elaborate this a little bit further and provide some arguments for excluding a significant topographic forcing?

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