# A field perspective on the role of creep processes for development of high altitude low relief surfaces

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The characteristic high altitude low relief surfaces (HALRs) of Southern Norway have a disputed origin. Current modelling experiments contradict the traditional 'paleic' interpretation of these surfaces, and point to recent development in a periglacial environment [1]. If this interpretation is correct, it provides an example of large-scale periglacial bedrock landscape development and further underlines the importance of cryo-conditioning for long term landscape development [2]. The periglacial 'buzzsaw' involves two aspects: sediment production by frost weathering, and sediment transport by periglacial mass wasting, i.e. solifluction. We assess the results from numerical landscape models by spatial and temporal upscaling from current periglacial solifluction landforms and process rates.

## References:

1. Egholm, D., et al., The periglacial engine of mountain erosion-Part 2: Modelling large-scale landscape evolution. Earth Surface Dynamics 3, 463-482

2. Berthling, I. and B. Etzelmüller, The concept of cryo-conditioning in landscape evolution. Quaternary Research, 2011. 75, 378-384.