



## **Investigation of palaeosurface remnants and surface generations in the high mountain zone of northern Sweden**

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Palaeosurface remnants and surface generations were identified in the two study areas Ätnajåkki valley and Tjeuralako plateau in the high mountain zone of the northern Scandes, Sweden. A combination of fieldwork and GIS-analysis of digital elevation models was used for the investigation of the large-scale geomorphology of the two areas. Surfaces with an inclination of less than 11 degrees are suggested to represent palaeosurface remnants in the study areas. Three surface generations could be identified in the Ätnajåkki area, and five surface generations in the Tjeuralako area. Both study areas are situated in the geological zone of the resistant Seve nappes of the Caledonian bedrock in the high mountain zone of the northern Scandes. Palaeosurface remnants and surface generations are best preserved in areas where the ice was cold-based during glaciations, and in areas with resistant bedrock types. The results suggest a stepwise landscape development by adaptation of the landscape to a new base level after land uplift.