

## **Abstract**

The thesis deals with the analysis of the drawing of rock hatches created in a ladder style representation on the Czech state map series (SMD), specifically on the last edition of the analogue ZM 10. Therefore, the purpose of this thesis is to, on the basis of many specific uses of this method in maps, determine the frequency of occurrence of variants of the ladder style drawing and its possible spatial context for the purpose of future automation of their digital creation usable, for example, in the new SMD. A total of 11 clusters representing different styles of rock drawing were classified using a cluster analysis based on the calculation of features representing the geometric characteristics of the drawing of the rock. This result represents an exact confirmation of the hypothesis presented in the scientific literature that the drawing of the rocks is not uniform on the map sheets of the SMD. Subsequently, a style of rock drawing which best corresponds to the specification of the ladder style representation from the literature and which is the most represented, is selected. The characteristics of these selected rock drawing styles are further described and discussed. Ultimately, the output of this thesis is the determination of such a style of rock drawing, which makes sense to further analyse in detail for the purposes of automation.

Key words: rock hachures, ladder style representation, cliff drawing, hypsography