

ABSTRACT – AN ORIGIN AND DEVELOPEMENT OF STONE ACCUMULATIONS; THEIR RELATION TO THE BÍLÉ LABE CATCHMENT RELIEF

This thesis concerns the establishment of coincidence of block accumulations and their origin classification. It concentrates predominantly on the presence of glacial accumulations because it is not clear whether the Důl Bílého Labe Valley was shaped by glacial action or not. The Bílé Labe River has two tributaries in which the presence of glaciers is also debatable.

In the studied area all types of accumulation forms were mapped. These forms were primarily divided on the basis of morphology. Then their location was characterized in relief and were specified weathering characteristics of the material which made them. The main method used to determine relative dating of the blocks was Schmidt-hammer measurement. Additional dates, observation of other weathering characteristics of accumulation forms, was determination of rock's rounding, depth of weathering pits and selective weathering.

All dates about accumulation forms were statistically processed with the help of the discriminant analysis and the analysis of variation (ANOVA). With the help of these analysis it was proved that accumulation forms, which were identified like morains, have completely different characteristics than the other forms. The presence of morains confirms as well as discovery of steps of glacial transport on outside surface of quartz grains of take away patterns. These patterns were analysed with the help of exoscophy analysis which was made by Mgr. Lenka Lisá, Ph.D. from the Institute of the Geology Academy of Sciences of the Czech Republic.

Mentioned results support the presence of the glacial modelation in the Důl Bílého Labe Valley.