Geophysical Research Abstracts, Vol. 9, 07973, 2007

SRef-ID: 1607-7962/gra/EGU2007-A-07973

© European Geosciences Union 2007



Chlorite-talc schists as the extraordinary sculptural stone of the Northern Moravia (Czech Republic)

Prikryl R. (1), Gajda J. (2), Martinec P. (3), Vavro M. (4)

(1) Institute of Geochemistry, Mineralogy and Mineral Resources, Faculty of Science, Charles University in Prague, Albertov 6, 128 43 Prague 2, Czech Republic; phone: +420-221951500, fax: +420-221951496, e-mail: prikryl@natur.cuni.cz, (2) Academy of Fine Arts in Prague, Studio of Sculptural Works of Art Restoration, Prague, Czech Republic, (3) Institute of Geonics, Academy of Sciences of the Czech Republic, Ostrava, Czech Republic, (4) VSB-Technical University of Ostrava, Faculty of Civil Engineering, Ostrava, Czech Republic

Chlorite-talc schists make unique material that is extensively used as dimension stone in Nordic and some other countries. This metamorphic rock is scarcely distributed also in the Silesian zone (Northern Moravia) of the Bohemian Massif. The rock is composed by dominant talc and subordinate chlorite, hornblende and dolomite. It has been quarried from the second half of 17^{th} century till the beginning of 20^{th} century. The quarried stone was mainly manufactured to produce refractory materials. The best quality stone was, however, favoured by local sculptors and stonemasons.

This paper focuses on the basic mineralogical-petrographic characteristics, geochemical features, physical and mechanical properties and weathering behaviour of this extraordinary stone. The list of monuments where this rock types has been used is compiled together with the information on in situ decay features and previous restoration approaches.