



Structure of electronic database of Czech dimension stones

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Building stone databases exist either in the written (published) form or in the form of stone slab collection – a lithotheque (compare e.g. collection of antique dimension stones currently deposited at the Oxford Museum of Natural History). Use of published database or of material collection can be largely expanded by using third possibility of data management – electronic databases accessible through internet. However, there is still missing database, providing data both on historical stone resources and on stones available at present. Such database should integrate multilateral data on mineralogy, petrology, chemistry, technical properties, durability, history of use etc. These data will be beneficial for geologists (search for deposits, testing of properties, provenancing of stones during pre-restoration research of monuments, but also teaching), for restorers and sculptors (data on stone workability, stone appearance), architects (selection of stone according to visual types etc.). This paper aims to fill this gap and provides general information on the construction of electronic from of the database designed mostly for the research but also for the practical uses.

The electronic database of Czech dimension stones is designed to be run using free-ware MySQL system. This system is like most of the DBMS based on the relation data model. The electronic version is based on previously published structure of the Czech dimension stone database. The database presented in this paper is designed for maximum 65 535 records of stones but the expected number of records for Czech stone types should not exceed 1000 records according to the previous archive, literature and filed study of historical stone resources. This database consists of several types of data separated in 8 basic groups. Table *horniny* (rocks) is the most important part of the

database. It includes 77 items providing data on stone properties like mineralogical composition, physical and technological parameters, location (including geographical coordinates), exploitation data and historical utilisation. Independent tables exist for chemical and technological data. List of references is also bound to description of every rock.

The database is designed for multiple end-users. First, it should make a true electronic catalogue of stone included in the lithotheque of the Czech dimension stones. Second, it should be used as an educational tool for students of geology, restoration and architecture. Last but not least, it should make a scientific database employed in stone provenance studies.