



Hungarian travertine: a historic and current stone resource of Central Europe

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Travertine is a widespread dimension stone that was used worldwide in monuments. The best known examples are known from the Roman Empire from Italy, where this porous stone belonged to one of the favourite stone types. Ancient quarries of Tivoli provided material to major construction works to Rome. Other occurrences belonging to the Roman Empire outside of Rome were also used by the Romans. Some of the most important European deposits are known from Hungary. Exploitable travertine layers are found at many places in Hungary but at least two major areas were actively quarried by the Romans. One major deposit was not far away from the provincial capital of Roman Pannonia - called Aquincum, which currently forms a part of Budapest, while the other even larger occurrence is at Sütő, at the riverside of Danube some 50 km NE from the past capital. River Danube provided an excellent pathway of transport ting stone to the capital. Evidences indicate that quarrying activity in Sütő area has already begun during the 1st century BC and the travertine has been exploited with some interruptions since then. The present day quarries form the parts of the largest active dimension quarry system of Hungary. The exposed very thick banks (3 to 4m) of travertine were deposited from lukewarm springs during the Pleistocene period. Various types of travertine were used for constructing Roman aqueducts, fortresses, amphitheatre until the 4th century AD and were also transported to other parts of that Roman Province which extended to the present territory of Hungary, Austria, Slovenia and Croatia. Although the use of travertine has significantly decreased after the fall of Roman Empire in Central Europe and in Hungary, the presence of this stone was also documented from numerous Gothic and Baroque buildings from the area. The use of this stone became more popular again in the Carpathian Basin, when major constructions of larger cities such as Bratislava, Vienna or Budapest accelerated in the Austro-Hungarian Monarchy at the second part of the 19th century. The paper also provides information on various lithotypes of travertine and it also presents data on the physical properties and examples of its use in the monuments located in the cities of Central Europe.