

Building stone varieties in historical quarries of the Basel minster, Switzerland

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The Basel Minister, build between the years 1019 and 1500, was constructed dominantly out of Triassic Buntsandstein building stones. It is a heritage site of national significance for Switzerland and is constantly undergoing restoration and repairs for which the use of original material is highly desirable. The building material was likely sourced locally, however, from which historical quarries the sandstone material originates is unclear. Here, we present the results of a detailed mapping and sedimentological study of abandoned and disused quarries from which the building material was likely derived. The sandstone varieties found in the field can be correlated to the original building and cut stones of the minster, indicating that the studied quarries were likely sources of building material for the minster. The quarries are dominated by medium to coarse grained sandstone while fine grained sandstone does usually not occur. This indicates that the studied quarries were predominantly used as source for building stone while other still unknown quarries were used to supply cut stone material to the minster. Our work is the first step towards establishing the origin of the building stones of the Basel Minister and other medieval buildings in the region.