

AACHEN CATHEDRAL

World Cultural Heritage since 1978

Engineering geological conditions and problems:

The deeper subsoil consists of folded and scaled bed rock of the Variscan mountains, mainly Devonian and Carboniferous clay stones, sandstones, and limestones. The limestones are in part strongly karstified. The fold axes are orientated almost exclusively in SW-NE direction. The basement is intensively ruptured by SW-NE striking faults. The cathedral was built close to the Aachen overthrust fault. Along these faults thermal waters ascend, which have been used since Charlemagne's times.

Above all, in the western part of the town Cretaceous sandy-calcareous sediments occur on top of the eroded basement. Quarternary loess, often showing water-logging, represents the youngest deposit in the city center.



Aachen Cathedral

Protection measures already have been taken or have to be taken:

Despite unfavourable foundation conditions near the Aachen Cathedral subsoil related damages are not known. However, after 1200 years with several wars, fires, earthquakes and modifications damages (fissures) have occurred. Renovation works have been carried out since 2001 on the roof truss of the octagon and are presently being carried out on the Carolingian masonry with its anchor system and the dome.

The single-nave chancel was consecrated on the 600th anniversary of the death of King Charlemagne, ever since when the "Glass House" of Aachen has impressed generations of visitors with its bold architecture.

Other information:

The Aachen Cathedral, frequently referred to as the "Imperial Cathedral" (in German: Kaiserdom) of Aachen is the oldest cathedral in northern Europe. Charlemagne began the construction of the Palatinate chapel in 786. The Palatinate chapel is the largest dome north of the Alps. Its the heart of the Aachen Cathedral. Its fascinating architecture with Classical, Byzantine and German-Franconian elements is the essence of a monument building of great importance.

References on studies already performed:

Source: Geologischer Landesdienst Nordrhein-Westfalen.