



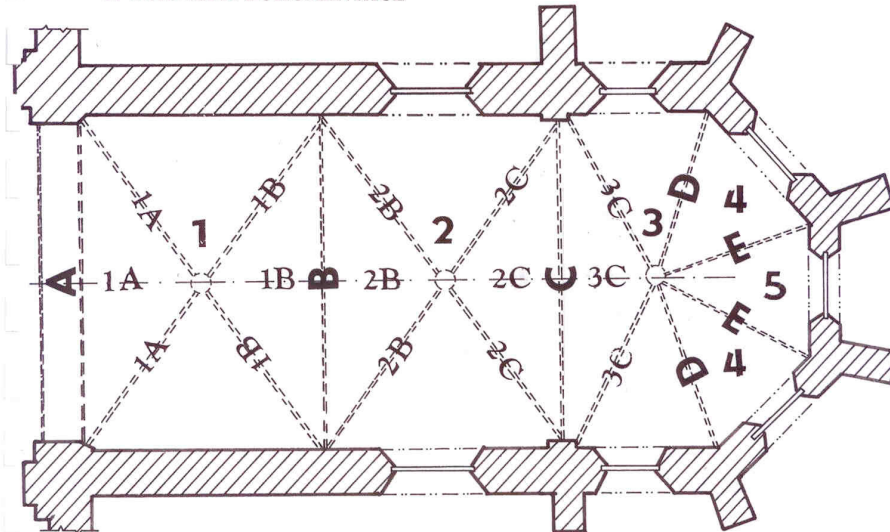
CTU in Prague
Faculty of Civil Engineering
Department of Building Structures

Restoration of vaults

Parish Church of St. Henry and St. Kunhuta in Prague

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2960/2011.

Description of the object

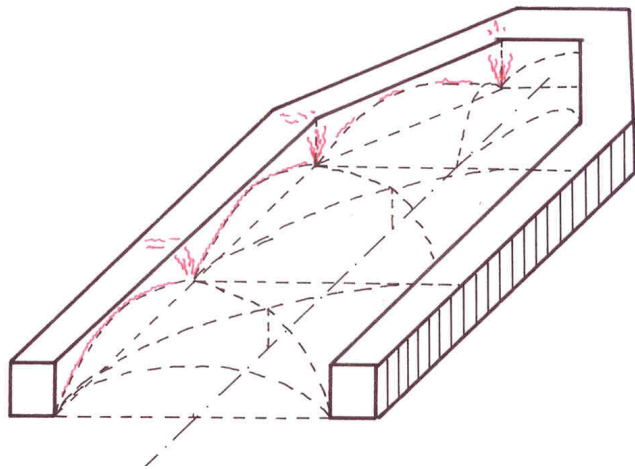


Obr. 1: Pro zjednodušení orientace byla žebra označena A,B,C,D,E a klenební kápě 1,2,3,4,5



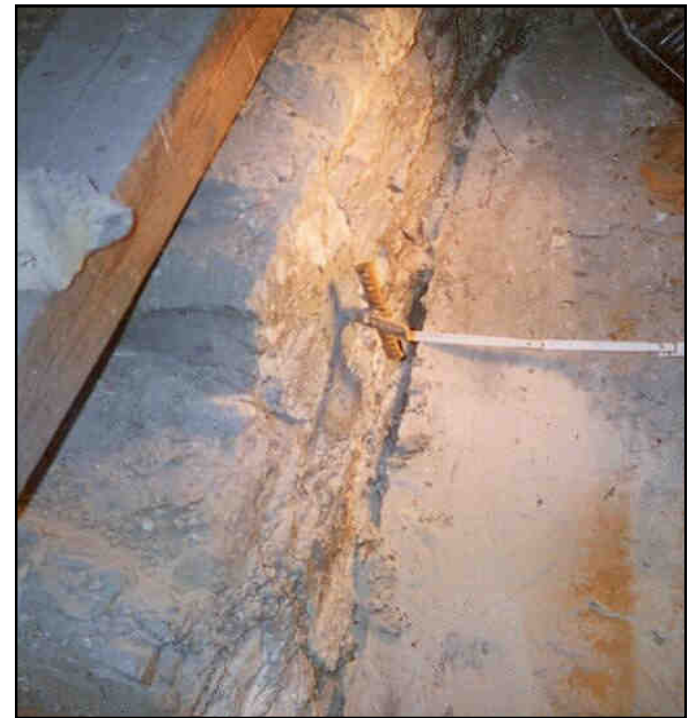
Description of defects

- ▶ Above the left window of the presbytery apparent crack
- ▶ Drawing of the cracks in the attic area



Description of defects

- ▶ Transverse crack of the vault - the vault separation from the presbytery perimeter walls (Fig.: the anchors are ready to attach the masonry)



- ▶ Detail of the vault separation from the perimeter wall in presbytery

Description of defects

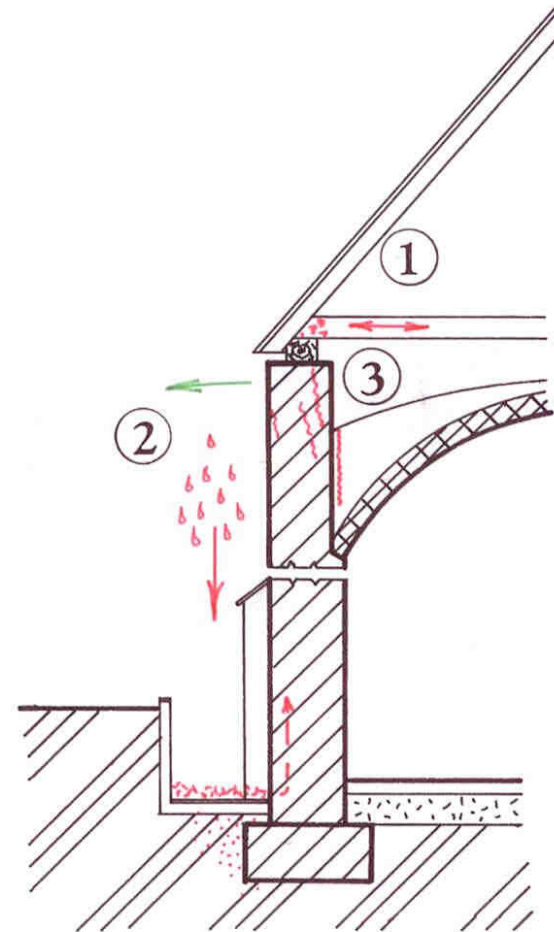
- ▶ Truss tie beam (rotten beam gridiron) and vertical cracks in the perimeter wall of presbytery



- ▶ Detail of anchor and canceled interlock of presbytery perimeter walls by oak beam

Analysis of defects

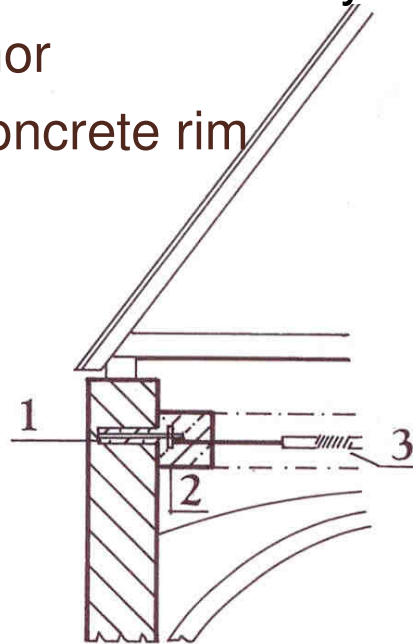
- ▶ Stability of the wall - effects that affect the stability of the wall
 - ▶ 1) dysfunctional interlock (rot)
 - ▶ 2) rising damp (maps)
 - ▶ 3) static faults



Restoration of defects

- ▶ final solution of the static security of presbytery wall

- ▶ 1) bonded anchor
- ▶ 2) reinforced concrete rim
- ▶ 3) draw rods



- ▶ vertical crack in the circumferential wall of the presbytery attic area (Fig.: prepared steel anchors for making the rim)

