

Pathologies and interventions on the dome of the Pavia cathedral.

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Abstract The Cathedral of Pavia is a Renaissance building and one of the most important works by Bramante. It is one of the most extraordinary cathedrals of its time: the dome in brick masonry has a diameter of 30 m and is 92 m high; it is supported by 8 marble pillars (21 m high), an imposing drum of marble arches, and a thin and bright loggia.

In 1989 the cathedral was in danger of collapse and went under strengthening interventions that ended in 2010. Previous papers (Macchi 1998) (Macchi 2007) described the two main pathologies of the church; the first pathology had damaged the 8 marble pillars with severe cracks and large spallings which led them close to a collapse. The second pathology, dealing with the large cracks of the dome, is described in the present paper.

Keywords brickwork, pathology, strengthening