

St. John Hospital in the Old City of Jerusalem

Silvia Briccoli Bati, Mario Fagone, Tommaso Rotunno

Abstract The St. John Hospital is part of a larger complex of buildings known as the Hospitallers Quarter, located to the south of the Holy Sepulchre. The building of the oldest part of the Quarter, made up from the Benedictine monastery of St. Mary of the Latins and the pilgrims' chapel dedicated to St. John the Almoner, dates from the eleventh century. The whole area of the Quarter, today called the Muristan, was until the end of XIX century one of the most neglected areas of the Old City. Between the end XIX century and the first half the XX century the Quarter underwent profound transformations. Also the St. John Hospital over time was significantly changed, even through heavy demolition. At present the Hospital looks like a irregular volume both in height and in plan. It is covered by ten groin vaults resting on very stocky pillars. In order to analyze the structural behaviour of one of the groin vaults, some laboratory tests were made on a 1:5 scale model built with materials and construction techniques similar to those of the original.

Keywords: Groin vaults, structural vulnerability, model tests