

The Domes of the Church of St. Spiridione in Trieste Geometrical Analysis and Digital Reconstruction

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Abstract The aim of this research, developed at the University of Trieste, was the analysis, the redrawn and the digital reconstruction, of the geometrical configuration of the domes of an important building in Trieste, inside the Borgo Teresiano and near the Canal Grande: the Serbian-Orthodox church dedicated to St. Spiridione, finished in 1869. This architecture, realized on the foundations of a previous Orthodox church, was inspired by the Byzantine style, as requested by the competition. The general scheme of this architecture is based on a Greek cross with three apses and contains, among four bell-towers in the angles, a central room covered by a big spherical vault, supported by arches and faced by three spherical caps. The present research studies for the first time in a specific manner the geometrical genesis of the domes of this church, and it is part of a developing study on some religious buildings in Trieste.

Keywords geometrical genesis, modeling, digital reconstruction