

Orientation of Church Buildings – Another Dating Element

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Abstract

Dating a building means determining the time of its construction. This information provides various data on the historical research, culture and urban development of a particular area. Church buildings are usually dated by researching historical sources (documents, inscriptions, archaeological analyses) and comparing them with other related examples in architecture (analysis of architectural form – layout and spatial relations, construction system, construction method, etc.).

This paper explores dating the construction of church buildings based on their orientation towards four cardinal points. The geographic area researched was Vodnjan in Istria (Republic of Croatia), and the period researched was from the 5th to the 17th century. The territory of Istria was ruled during this period by several political superpowers (Byzantium, Venice, Franconia) and Christianity underwent major changes (the East-West Schism, the Pontifical State in Ravenna, the Patriarchate of Aquileia, the Crusades, the Reformation, etc.). Each authority that built a new church oriented it toward its religious centre. This means that churches can also be dated based on their orientation towards four cardinal points.

The orientation of the parietal lines of churches in relation to religious seats was analyzed on cartographic and cadastral basemaps using geodetic methods in CAD and GIS tools and the results obtained are presented in the paper. These seats are Constantinople, Ravenna, Aachen, Aquileia (Grado), Rome, and Upper Crimea. The research found that the churches had meaningful orientations towards the religious seats which governed the Vodnjan area at certain times. Of the 28 churches analyzed in the Vodnjan area, only three churches (11%) were not oriented towards the religious seats mentioned above.

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