The riddle of the crosses: The crusaders in the holy sepulchre of Jerusalem

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This paper describes the rationale, the challenges and the imaging solutions employed in an attempt to uncover a centuries-old riddle. To suggest an answer to the meaning for the hundreds of crosses, symbols, and texts, inscribed on the walls and behind the altar of the Chapel of Saint Helena, within the Church of The Holy Sepulchre in Jerusalem, ascribed to the Crusaders of the 12-13 century.

We have employed a variety of Photographic and photogrammetric imaging technologies, along with traditional archaeological research, in a concentrated attempt to document as much empirical data as possible while ongoing renovations opened up a small window of opportunity.

Three main imaging techniques were used: 2D panoramic high-resolution photography, 3D photogrammetry, and Reflectance Transformation Imaging.

The results of the data collected are currently undergoing analysis in an attempt to establish the chronology, typology, and stratigraphy of the incisions. We hope that this will assist in confirming, correcting or rejecting the traditional explanations ascribing the graffiti crosses to the Crusader period.