

GEMMOLOGICAL STUDY OF THE RELIQUARY BUST OF SAINT LAMBERT FROM THE LIÈGE CATHEDRAL, BELGIUM

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The reliquary bust, hosted in the treasure of the Liège Cathedral, represents Saint Lambert, a famous bishop of Tongres-Maastricht, murdered in Liège around the year 700. The bust was produced by Hans von Reutlingen in the early XVth century, on the initiative of the Prince-bishop Erard de La Marck. This piece of goldsmithery of late Gothic style is constituted by a wooden structure, covered with gold-coated silver. The bust is positioned on a complex pedestal on which six important moments of St. Lambert's life are represented. The total height of the bust is 159 cm; it's covered by approximately 400 gems, glass beads or pearls. Relics, constituted by the St. Lambert's skull, were inserted in the head of the reliquary. In this study, we used Raman spectrometry and X-ray fluorescence spectrometry (XRF) to determine the mineralogical and chemical compositions of gems, pearls, glass beads and metals that were used to decorate the reliquary. The results confirm the identification of one hundred pearls, twenty-six rock-crystals (colourless variety of quartz), ten amethysts, and twenty turquoises. Two diamonds are also present on rings located on the right hand of St. Lambert. The other samples are glass beads; their colours are green, blue, orange, brown, white, pink or red. The metal contains Au and Ag, thus confirming that it is constituted by gold-coated silver. Moreover, the cut of gemstones shows a significant evolution, with ancient glass beads showing simple rounded shapes, while more recent glass beads show numerous facets. These results will help us to confirm the age of the bust reliquary, to determine the chemical elements used for the manufacture and colouring of the glass beads, and to obtain data on the gem trade during medieval times in the Liège area.