

## **X-RAY FLUORESCENCE OF A MEDIEVAL MOSAN RELIQUARY OF SAINT AMANDUS**

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The components of a reliquary shrine of Saint Amandus are analyzed using X-ray fluorescence. The reliquary was acquired by the Walters family in 1930 from an art dealer in Paris. Stylistic examination dates the shrine to the 11<sup>th</sup> through 13<sup>th</sup> centuries, in the Mosan region of Belgium. The reliquary consists of a wooden tomb-shaped box covered with over 100 pieces of gilded copper, as well as enameled plaques, silver columns and numerous gemstones. Repoussé, engraving, and stamping were all used when decorating the copper plaques in a number of different designs. Although it is very clear that the various components of the reliquary have been moved, lost and replaced over time, it is unclear which, to determine which plaques were original, which were added in the 13<sup>th</sup> century or over the course of its liturgical lifetime, and which may have been added by the dealer in the early twentieth century.

An open-architecture XRF was used to identify the colorants and opacifiers in the enamel plaques without requiring the removal of a sample. The colorants and opacifiers can be compared to published analyses of medieval Mosan enamels. Similarly, the trace elements identified in the copper plaques were analyzed with XRF to try and separate the various components into groups that may have been manufactured together. Stylistic analysis and examination of the method of manufacture are combined with the XRF data to form a picture of how the reliquary's plaques have been moved, added to and replaced during its history.