## GEMMOLOGICAL STUDY OF A RELIQUARY CROSS FROM THE LIÈGE CATHEDRAL, BELGIUM

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## Gemmology, reliquary cross, Belgium

In 1914, a magnificent reliquary cross was discovered in a safe from the Liège Cathedral. This double-arm cross shows a wooden structure, covered by gold-coated copper on the front, and by carved silver foils on the back. The total length of the cross is 33.5 cm, and it is covered by filigrees, gems, glasswares and pearls on its front. Relics, constituted by fragments of the Holy Cross, were originally inserted in two cavities on the back of the cross; these relics have disappeared. A detailed stylistic investigation by George (2013) showed that the cross was realized in the early XIII<sup>th</sup> century; in a first approach its style could be compared to the famous gold items realized by Hugo d'Oignies but it is not the same goldsmith's workshop. At that time, Liège was a principality of the German empire with at his head a bishop who governed also a great diocese; in the XIIth-XIIIth centuries the region produces famous pieces of goldsmith's work, as for example the Stavelot Triptych hosted by the Morgan Library & Museum, New York. The style of these pieces of art is called "Mosan art", from the name of the Meuse River located nearby. The reliquary cross was analysed by Raman spectrometry and X-ray fluorescence spectrometry (XRF), to determine the mineralogical and chemical compositions of gems, pearls, glasswares and metals that have been used to decorate the cross. The results confirm the identification of six tiny pearls, six amethysts, twenty five turquoises and two garnets. Twelve coloured glasswares were also identified; their colours are green or blue. A small red cross, located at the centre of the reliquary, is constituted by a nice doublet with red glassware covered by quartz. The filigrees contain Cu and Au, thus confirming that they are constituted by gold-coated copper. These results will help us to confirm the age of the reliquary, and to obtain data on the gem trade during medieval times, in the Liège area.

George, Ph. (2013): Du prieuré d'Oignies au musée de Namur : le binôme « reliques » et « arts précieux ». À propos d'une croix inédite du Trésor de la Cathédrale de Liège. *in* « Actes de la journée d'étude Hugo d'Oignies. Contexte et perspectives. », J. Toussaint, ed., TreMa, Namur, 136-151.