INRODUCTION

Before Marriette Fréchette-Frêneau wrote her Master thesis about this tabernacle in 1970, this outstanding piece was misattributed, and its history forgotten. Her thesis demonstrated that Saint-Géorgie’s tabernacle was brought in 1807 from Montréal, where it had been in the Recollets’ chapel for about a century. A few years later, Jean Bélisle eventually proposed that the tabernacle could be attributed to Charles Chabouillet (1647-1708), a French sculptor who immigrated to New France around 1680. Other art historians also proposed hypotheses about the way the tabernacle was transformed in the 18th century. Ever since, all of these hypotheses have remained uncertain. In an attempt to clarify this uncertainty, the relevant literature was reviewed, and a scientific investigation of the wood substrates and the layered structure of the tabernacle was carried out. The analyses included microscopy, Fourier Transform Infrared spectroscopy (FTIR), and Scanning Electron Microscopy with Electron Detector Spectroscopy (SEM-EDS). The scientific results were finally compared to the relevant literature.

EXPERIMENTATION

1. MICROSCOPY

18 coating samples were mounted into cross-section and observed with the Olympus BX51 microscope combined with the Olympus DP72 camera. The samples were viewed under normal light (Fig.2) and ultraviolet light (Fig.3), and then stained with Rhodamine B for secondary fluorescence (Fig.4).

2. SEM-EDS

10 selected samples were then coated with a very thin layer of carbon in preparation for electron bombardment in the Auram 1830 SEM-EDS. This analytical investigation was done primarily for elemental analysis, but imaging of certain samples was also done (Fig. 8). Elements such as lead, calcium, and silver were found in several layers, while mercury was detected in red layers only (Fig.7).

3. FTIR

The Nicolet Avatar 320 (FTIR) spectrometer, in combination with an attenuated total reflectance (ATR) attachment was used to identify the compounds present in certain layers of the samples. For each spectrum, 32 scans were collected at a resolution of 4 cm⁻¹. Calcium carbonate and oil were identified in the ground layer (Fig.9), while cellulose nitrate was identified on the top layer (Fig.10).

RESULTS AND CONCLUSION

The scientific investigation of the tabernacle of Saint-Géorgie yielded interesting information about the history of this valuable artifact. First, it was observed that the tabernacle was originally oil gilded with a ground containing calcium carbonate, oil and a dryer. Second, it was found that vermillion was used in the gold size and as a paint on the horizontal surfaces surrounding the gilded parts in order to impart a warm, red tone to the gilding. Third, it was documented that the tabernacle has been re-gilded four times in its history; three times with gold leaves, and the last time with a bronze (i.e. brass) paint. Finally, based on wood analysis and on visual observations, it was determined that the Christ Reserve is almost in its original state, and that only the predella surrounding it have been modified.

This information, in combination with the review of the art historical literature and newly found sources, are consistent with the proposal that Charles Chabouillet was in fact the maker of the tabernacle, and that he was working on it in 1702. Furthermore, it was determined that more of the tabernacle than previously believed is of original construction.