TECHNICAL EXAMINATION OF VIRGIN SURROUNDED BY FLOWERS, BY JAN VAN KESSEL I

INTRODUCTION

Jan van Kessel I (1626-1679), came from a very artistic family circle, the Brueghel family. His father Hieronymus van Kessel (c. 1578-1635) a portrait painter, married with Pachacoe Brueghel. Van Kessel was the grandson, by maternal line, of Jan Brueghel "The Elder" (1568-1625), nephew of Jan Brueghel "The Younger" (1601-1678), and David Teniers "The Younger" (1610-1690). In 1644-45 Jan van Kessel became specialized on flower painting by the St. Luke Guild of Antwerp, and his painting reflects the influences of his family concerning the representation of flowers and van Kessel's affection for zoology and miniature painting.

Virgin Surrounded by Flowers follows the model from the earliest known garland painting with a religious theme performed by Jan Brueghel "The Elder", in collaboration with Hendrick van Balen (1575-1632), Virgin and Child in a Garland of Flowers.

Virgin Surrounded by Flowers was performed by the collaboration of artists were Jan van Kessel performed the wreath of flowers, as it was his specialty, and the representation of the Virgin was done by another painter. According to Dr. Sam Segal the portrait painter could be Gonzales Coques (1614 or 1618-1684), but Dr. Klaus Ertz, for stylistic reasons, suppose that it may be someone from the van Balen family, possibly Jan van Balen (1611-1654).

TECHNIQUE AND MATERIALS

A sample taken from a green leaf over a red petal from Virgin Surrounded by Flowers for analyses provided information about Jan van Kessel materials.

Material analysis had highlighted the use of similar materials and techniques of painting practice documented on 17th century treatises. However the Virgin radiopaque carbon black pigments.

Material analysis had highlighted the use of similar materials and techniques of painting practice documented on 17th century treatises. The binding medium was also analyzed by gas chromatography and the samples were derivatized with Meth-prep II, for lipophilic materials, and with MTBSTFA in pyridine, for protein materials. Proteins were hydroxylized with HCl 6M before derivatization.

CONCLUSIONS

Technical examination allied to the conservation treatment of Virgin Surrounded by Flowers provided a deep knowledge to the main questions posed by this painting: Which materials (pigments, fillers and mediums) are present at the Virgin Surrounded by Flowers? Did van Kessel follow the painting practice documented on 17th century treatises? Is this work a collaboration of artists regulated by the Antwerp Guild? If so is a collaboration of artists, which artists participated?

Technical examination was achieved through sampling and sample cross-section examination by optical microscopy. Analysis of sizing layer was performed by staining test with acid fuchsin. It was diluted 1 g of acid fuchsin under 100 ml of distilled water. For the identification of pigments, paint layer structure and their materials constituents it was achieved through the cross-section analysis by scanning electron microscopy with energy dispersive X-ray spectroscopy (SEM-EDX). For the binding and varnish identification analyses were performed by Fourier transform infrared spectroscopy (FTIR).

Technical examination of Virgin Surrounded by Flowers was a support to answer our doubts concerning Jan van Kessel materials and technical execution. It is known now that Jan van Kessel followed the technical practices documented in 17th century treatises concerning the use of the double ground and pigments. Furthermore it is possible to understand that Virgin Surrounded by Flowers was made by a collaboration of artist, however doubts remains concerning the portrait painter. The golden inscription underneath the Virgin chromatic layer still poses questions about its meaning, function and the later covering action.

ACKNOWLEDGEMENTS

The authors would like to thank the General Direction of Culture Patrimony, to Museo Nacional de Arte Antiga and specially to Dr. António Filipe Pimentel, to Dr. Alberto Seabra and the conservator Dr. Susana Campos, for the opportunity to study and treat one canvas painting with such cultural profit that provided a deep knowledge of Jan van Kessel I and Flemish art. To Dr. Klaus Ertz and Dr. Sam Segal, without their help it would be difficult to obtain detailed information about the portrait painter. To José de Figueredo laboratory from Museums and Conservation Institute for the radiography and IR reflectography exams performed to Virgin Surrounded by Flowers in particular to Prof. António Candelas, head of the laboratory.