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Revealing the History of the Objects A Synergy between Restorers and Chemists
(RICONTRANS Project Research)

The 'life' of an object (the date of creation and its 'adventure' throughout time) can be revealed through a masterly interplay of historical, conservation, and scientific investigation. This is why a fruitful collaboration between chemists and restorers within the RICONTRANS Project (*Visual Culture, Piety and Propaganda: Transfer and Reception of Russian Religious Art in the Balkans and the Eastern Mediterranean (16th-early 20th c.)* has been initiated, in order to gain new insights into the phenomenon of the transfer and reception of Russian iconography in Transylvania.

Within the main RICONTRANS research team, and with a special focus on the restorer's challenges, we set several specific research objectives which could contribute to the understanding of the process of transfer and reception of Russian religious art in Transylvania, such as:

— To trace some specific technical elements that can provide a better understanding of the Russian icon phenomenon.

— To make a comparative analysis that can provide more information regarding not only the technique of painting (and based on that, to date the icon), but also provide information about the phenomenon of transfer and reception of the Russian art, from a stylistic and technique point of view.

— To develop a framework that can be adapted to fit the problems of restoration.

— To map the chemistry of icons in order to investigate age and provenance, as well as some of the secrets of the icon painters.

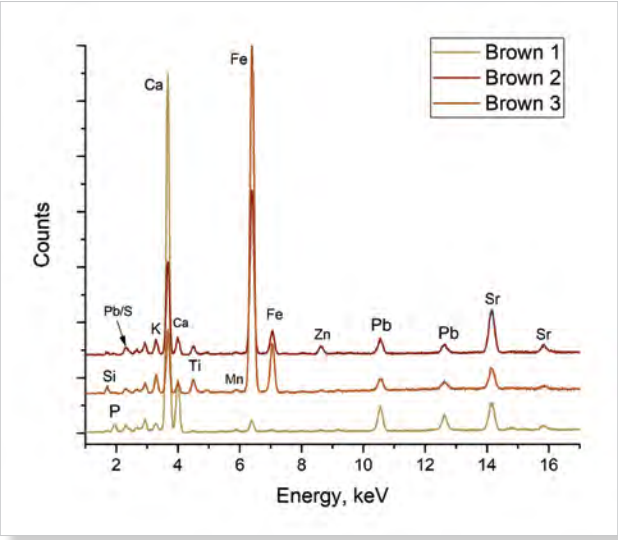
◀ *The icon of 'Saint Nicholas' after its restoration.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

▼ *Investigating the icon of 'The Resurrection with Feasts'.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

Out of the 23 Russian icons owned by the National Museum of the Union Alba Iulia, seven icons were selected for investigations using advanced non-invasive techniques: optical microscopy (surface analysis), XRF spectroscopy (elemental analysis), Raman and FTIR spectroscopy (molecular structure analysis). Both ATR (Attenuated Total Reflection) and transmission FTIR were employed, depending on the availability of the micro-samples. Seven micro-samples have already been investigated: four are from Russian icons which recently entered the collection of National Museum of the Union Alba Iulia, as a donation; three belonged to Transylvanian parish churches and entered the museum collection in the '80s. Two of these present similar stylistic features, while the third one is stylistically different, even though its execution technique seems rather similar.

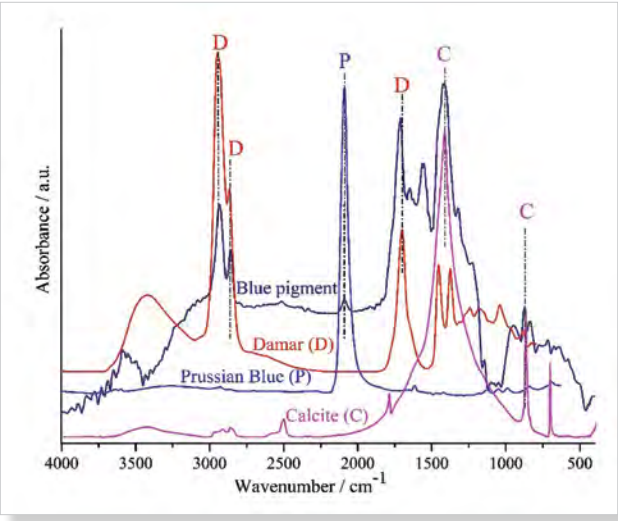
XRF spectra of brown hues used in the icon of Saint Nicholas suggest that Brown 2 and Brown 3 hues were obtained by mixing yellow-brown ochre (Sienna) / red ochre, while Brown 1 is most probably yellow ochre mixed with bone black.

Credits: ARCH Lab—RICONTRANS.



FTIR spectrum (dark blue) of a micro-sample from the icon of Saint Nicholas showing the absorption bands specific to Prussian blue (P), calcite (C) and a varnish, probably damar (D). Spectra of damar Prussian blue (blue), damar (red) and calcite (magenta) from Infrared & Raman Users Group (IRUG) database are presented for comparison.

Credits: ARCH Lab—RICONTRANS.



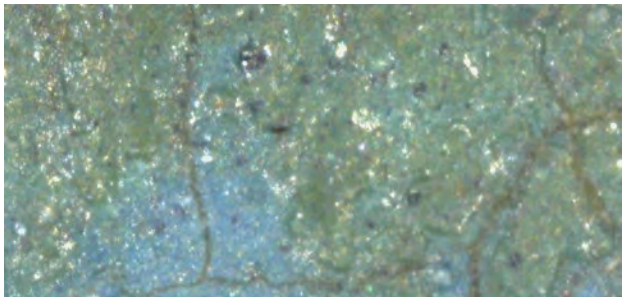
Our first objective regarding the Russian icons from the Transylvanian parish churches was to elucidate the question of provenance: are they objects of transfer or were they locally made as a result of the old Russian painting technique transfer? A comparison between the technique and materials used in the Russian icons brought from Russia and the ones from Transylvania has therefore been made. The interpretation of analytical results provided many of the answers we were looking for, all while opening new questions and suggesting new ways to improve our analytical protocol. These preliminary results were made public in the 4th edition of the *Museikon Restoration Workshop*, with a panel focusing on "Approaches and challenges in the restoration of Russian icons". They are to be integrated with new and complementary analytical data, and will be published in the proceedings of the *Workshop*.

Investigating the icon of 'The Resurrection with Feasts'.
Credits: Dumitrița Daniela Filip—RICONTRANS.

Investigating the icon of 'The Fiery Ascent of Saint Elijah'.
Credits: Dumitrița Daniela Filip—RICONTRANS.

Restoration the icon of 'Saint Nicholas.
Credits: Dumitrița Daniela Filip—RICONTRANS.

Microscopic view of surface painted in blue on the same icon.
Credits: ARCH Lab—RICONTRANS.



This short article is meant to emphasize the unparalleled potential of integrated approaches of artistic and historical artefacts in the discovery of new, sometimes unexpected, material aspects that open new investigation venues for research carried out by historians, art historians, iconographers, conservators and restorers alike.

Dumitrița Daniela Filip
Cristina Carșote
Emanuel Hadîmbu
Iulia Maria Caniola
Simona Maria Păunescu
Elena Badea

▲ *Cleaning tests for the restoration the icon of 'Saint Nicholas.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

◥ *General view of the icon of 'The Mother of God Who Shows the Way (Hodigetria)' before its restoration.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

◥ *Close-up showing the conservation state of the same icon.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

▶ *Close-up showing the conservation state of the same icon.*
Credits: Dumitrița Daniela Filip—RICONTRANS.

▲ *Five members of the team.*

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