

Russian Icons, 16th – 18th c.
**Proposition of a nondestructive-noninvasive methodology for an
integrated diagnostic approach of micrographic triptychs from the Benaki
Museum collection.**

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Abstract

The study, aims to enhance our knowledge on the materials and techniques applied in the making of Russian, portable ecclesiastical paintings produced later than the 16th century and to evaluate a pilot, nondestructive - noninvasive, research methodology proposed for their examination.

Based on research relating to the historical background of the production of late Russian icons, the motives and ways of their distribution towards the south, along with existing data on the materials and techniques applied by the icon painters of that time, an easy to use, nondestructive - noninvasive methodology is exploited in order to examine three triptychs and two wings of polyptychs belonging to the collection of the Benaki Museum. The small size and excellent state of preservation of the artifacts were the main factors prohibiting sampling. The study scheme is based on visual examination, the implementation of a series of spectral imaging techniques (VIS, FCIR, SWIR, UVF, RTI, X ray) and noninvasive micro XRF analysis. Identification of fibers is carried out microscopically as well as the determination of the type of wood.

Data collected from almost all of the construction layers are evaluated separately for each artefact procuring good results especially in cases where tarnished coatings do not significantly alter the perception of colour and detail of the painting. Information collected relates to the construction of the metal frame, the wooden support and the use of fabric but mainly focuses on the underdrawing, the use of metal foils and pigments, the order of application of paint layers and the recording of the painting

method. Due to the nondestructive - noninvasive character of the procedure, organic constituents are not thoroughly examined.

The methodology is evaluated very effective in terms of its output, the global approach of the construction technique, the user-friendly application, low cost and time consumption factors. Interventions are suggested that could potentially circumvent the difficulties along with alternative approaches that could simplify the process if sampling were an option.