

## Book Review

**THE EFFECT OF PRESERVATIONS ON THE  
CHEMICAL-PHYSICAL AND STRUCTURAL  
CHARACTERISTICS OF PANEL PAINTING**

by

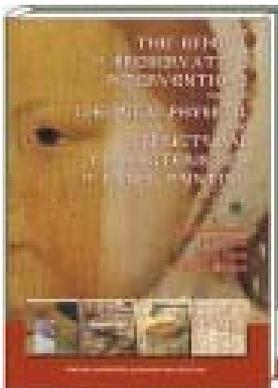
**Mikiko HAYASHI, Ion SANDU, Piero TIANO and Nicola MACCHIONI**„Alexandru Ioan Cuza” University of Iași Publishing House, 2010,  
ISBN 978-973-703-498-4

This study investigates on two traditional Romanian treatments, Red Petroleum and Propolis, in terms of performance and impact on physical parameters when applied on painted wooden artefacts. In Romania the utilization of these treatments is a popular technique still widely adopted in preservative conservation but the impact of these solutions is not well known and, to date, there are few published resources.

These Romanian traditional products are compared with a commercial antifungal product, Biotin R.

In this study were performed the following investigations on tempera painted samples made with the wood of poplar (*Populus* sp.), lime tree (*Tilia* sp.), oak (*Quercus* sp.) and fir (*Abies alba* Mill.):

- Colour change of wood panel painting before and after the application of different treatments (CIELAB colour system). The maintenance of the original colour in panel painting is an important requirement for preservation and restoration processes.
- Effectiveness against moulds and insects with appropriate biological tests
- Penetration into the wood by FTIR-ATR analysis
- Evaluation of physical wood parameters: moisture content, density, dimensional stability and porosity.



Evaluations were made on samples before and after exposure to different RH environmental conditions, at constant 20 °C temperature.

In this study authors underlines the importance of the technological characterization of wood panel that represents the support for decorate painted layers and how wood species could influence the attack of moulds to the egg tempera layers.

This original research is important for conservators, restores and other preservation professional and represents an effective effort for understanding, under a scientific point of view, the performance of traditional products normally evaluated only through empirical observations.

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