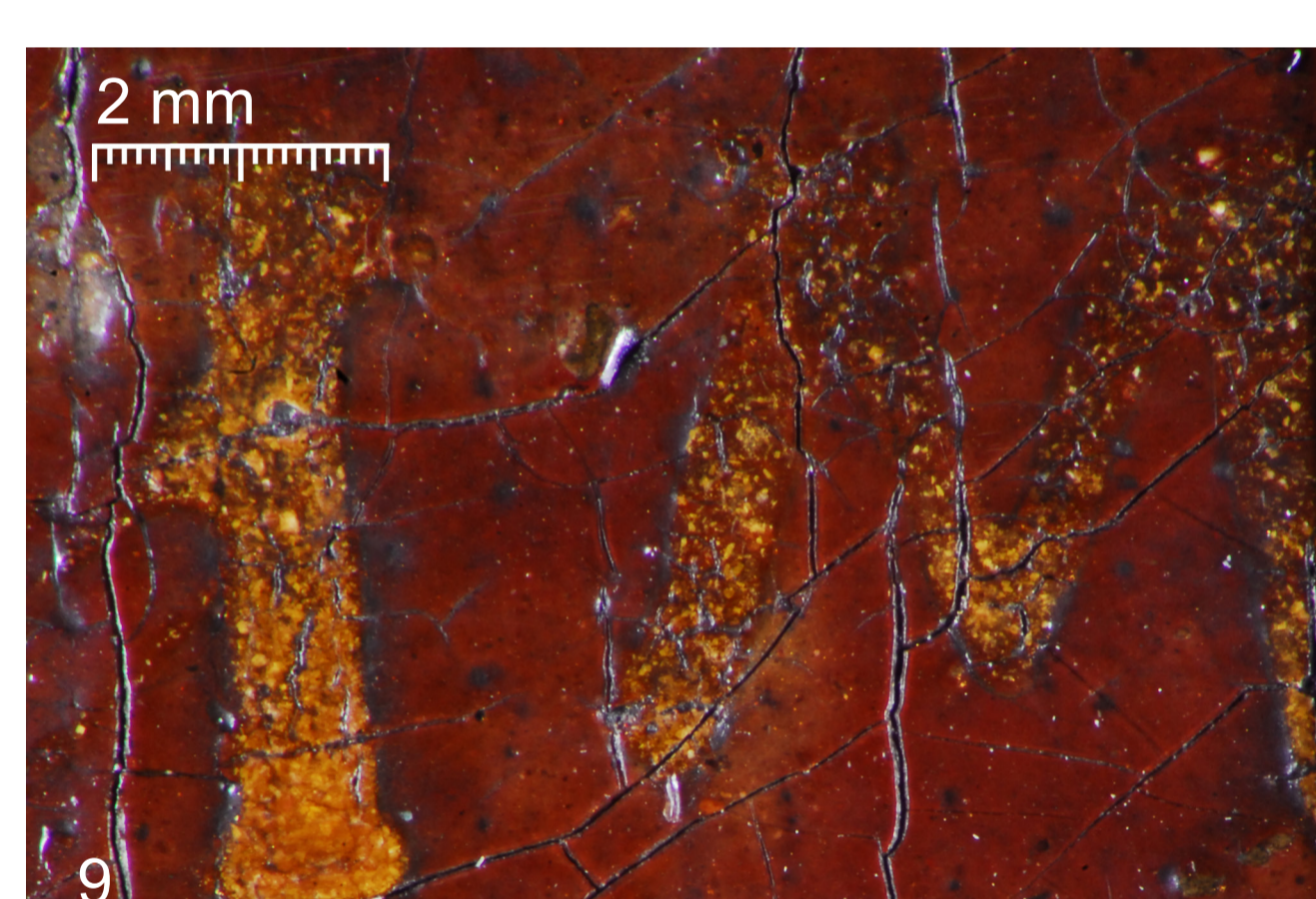
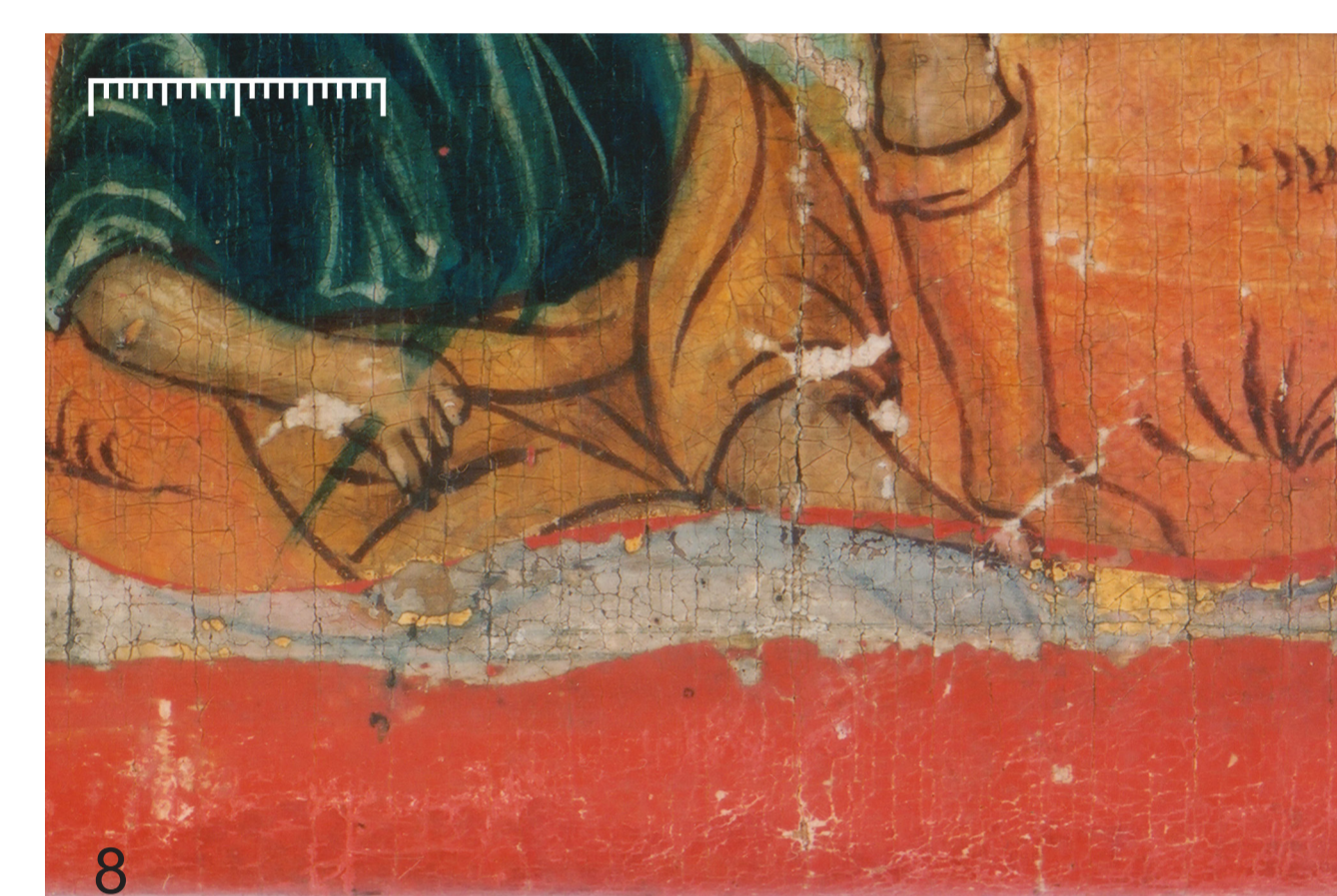
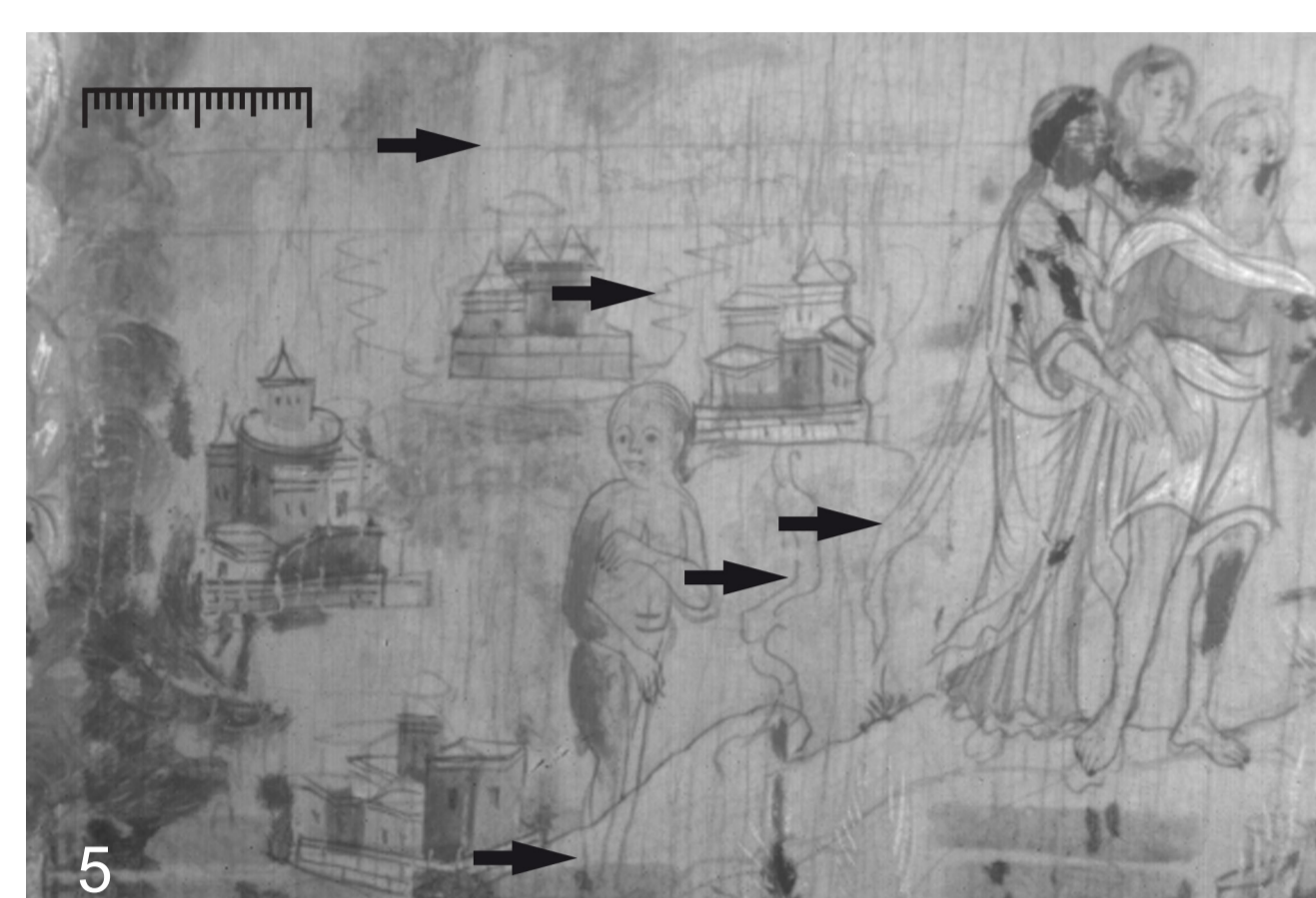


# The painting technique of the proskynetarion by Isaak Demetrakes, 1818, Palestine

Dipl.-Rest. Helena Dick

The proskynetarion by Isaak Demetrakes (Fig. 1) is one of the largest known pilgrim icons with an extraordinary dense iconographic program. As permanent loan provided by a private collection, it is presently exhibited at the Icon Museum in Frankfurt am Main, Germany. The icon was examined and treated by the author at the University of Fine Arts Dresden (HfBK), Faculty of Technology and Conservation of Art and Artefacts as part of a Diploma thesis under the supervision of Prof. Dr. Ursula Haller in 2008 - 2009.

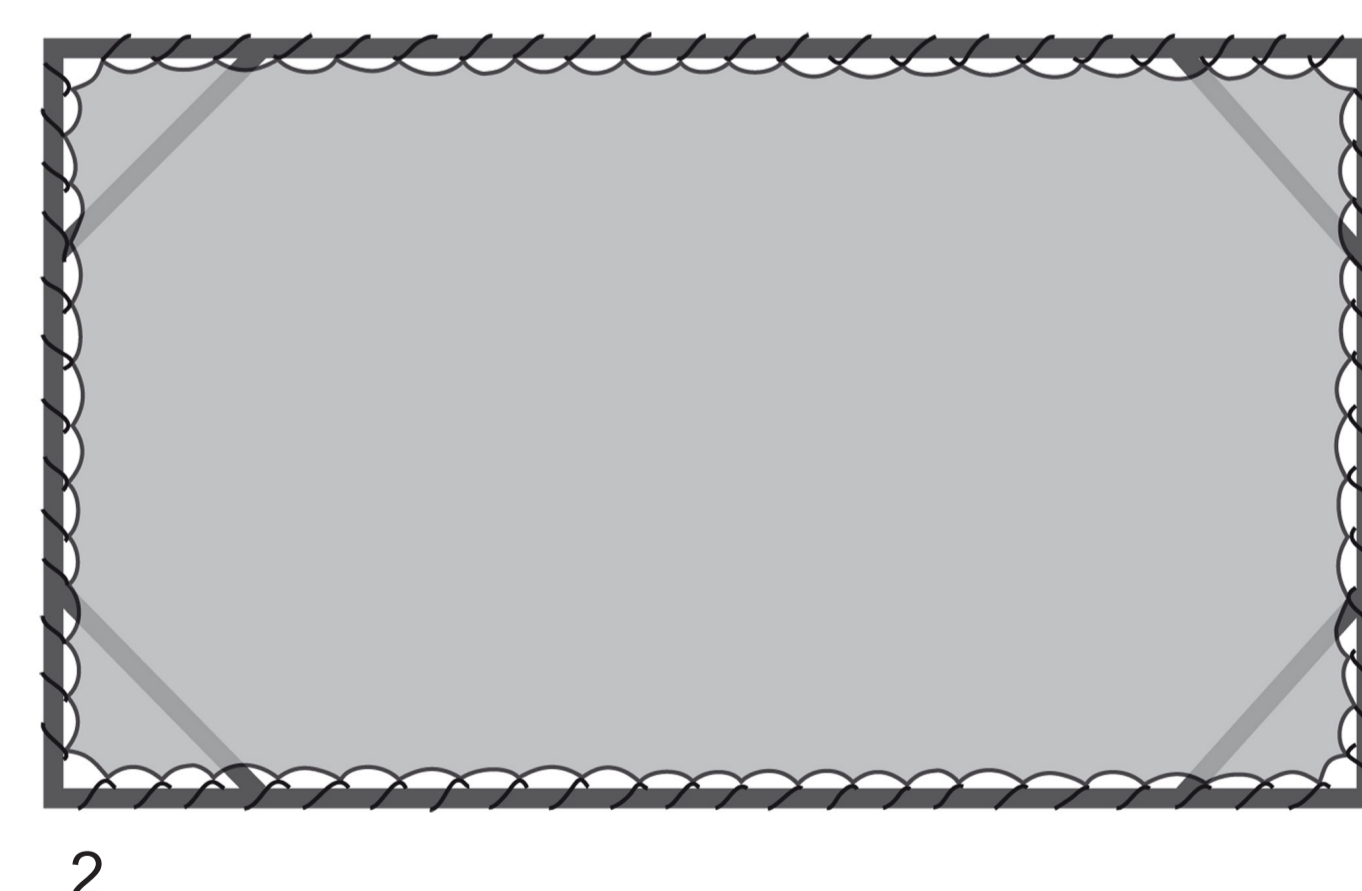
The painting technique was studied under visible light (VIS) with a stereomicroscope as well as with infrared reflectography (IR) and under ultraviolet induced visible fluorescence (UV). Microscopic examination on material samples and cross sections were completed with staining for proteins and oils, polarizing microscopy, energy dispersive X-ray analysis with a scanning electron microscope (EDAX SEM) and Fourier transform infrared spectroscopy (FTIR). All analysis was carried out in the Scientific Laboratory at HfBK Dresden. The investigation enabled a very detailed understanding of the painting technique and thus contributing further information to the young research of art-technology in the field of proskynetaria [1].



## SUPPORT AND ITS IMPREGNATION, BACKSIDE COATING AND PREPARATION

The plain-weave cotton fabric counted circa 25 threads.cm<sup>-1</sup> in warp and weft and was of fine and dense quality. During the painting process the cloth has been stretched onto a stretcher with diagonal battens in all four corners using a cord every 7 - 9 cm (Fig. 2).

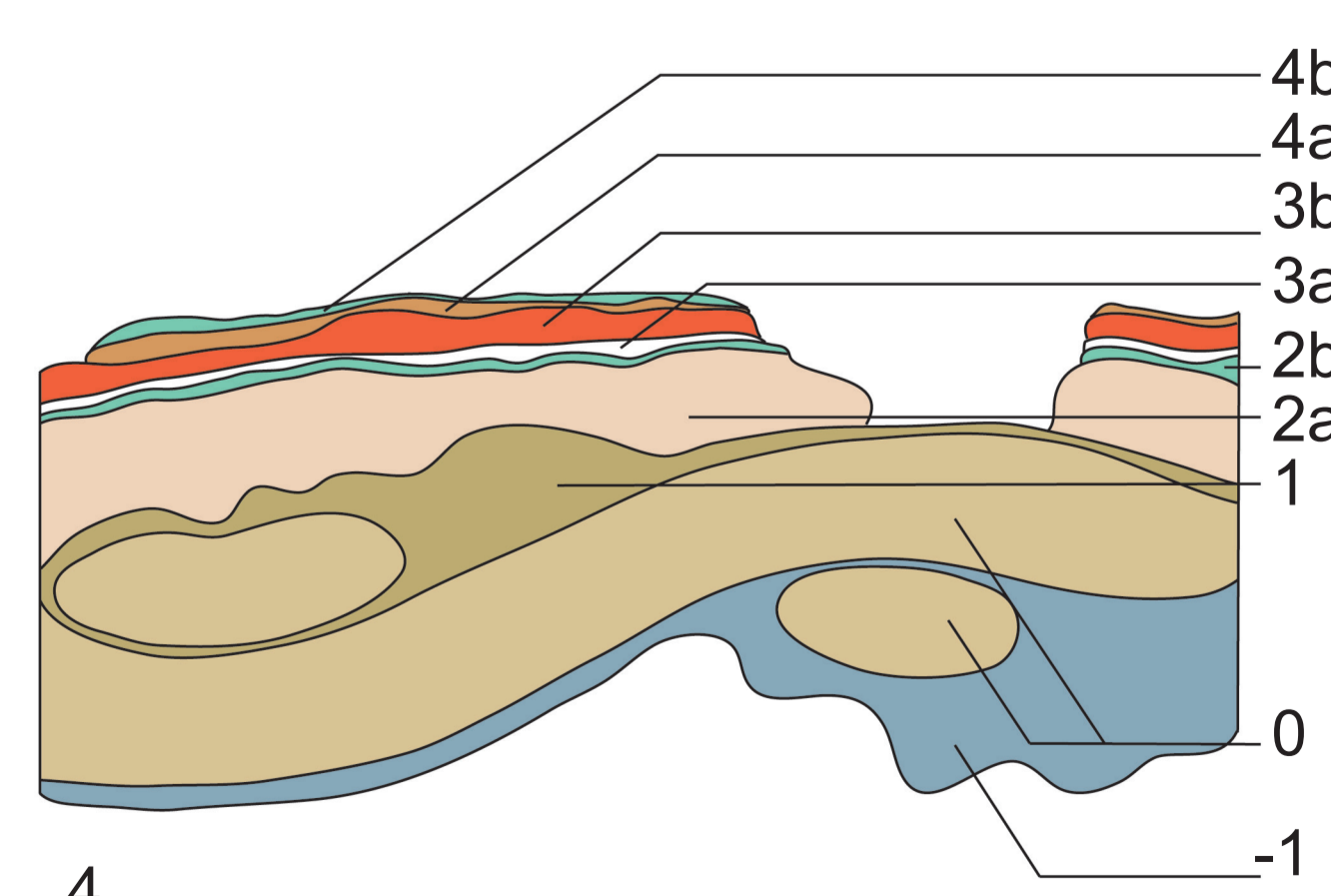
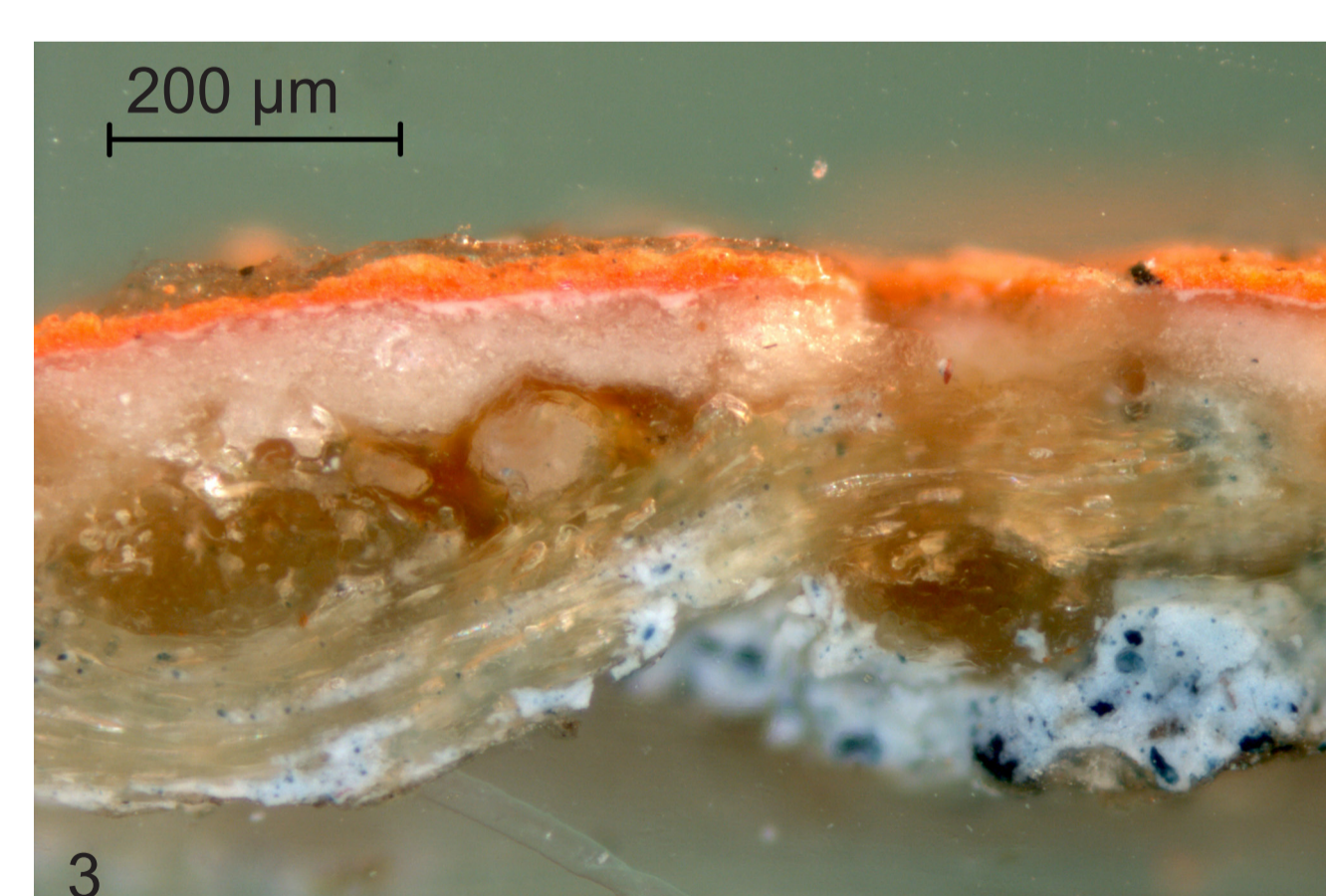
To reinforce the support for painting and later transportation the textile was impregnated with drying oil and received a thin coating on the verso (Fig. 3, 4). On the front a thin white ground was applied.



- 1 blueish coating on verso (tempera)
- 0, 1 impregnated support (drying oil)
- 2a preparation (protein glue)
- 2b isolation (protein glue)
- 3a isolation paint layer (protein glue)
- 3b red paint (tempera)
- 8a, b later conservation layers

## UNDER-DRAWING

Two phases of under-drawing could be distinguished. In a first step the composition was laid out with some further motives sketched in (Fig. 5, 6). The painter used a ruler and a compass and worked with a dry, sharp drawing tool. Hereafter he concentrated on details by refining the figures as well as reinforcing all contours and lines of subdivisions using blue paint with a thin brush (Fig. 7).



## PAINT LAYER, GILDINGS, VARNISH AND INSCRIPTIONS

The application of paint in multiple layers as well as the modeling of details corresponded to the traditional techniques in icon painting. Analysis confirmed egg yolk tempera as binder. In preparation for the oil gilding with powdered gold, defined areas like orbs or the background were isolated with a glue solution and covered with an opaque white layer to improve the reflection of the ground (Fig. 8). The mordant was lightly pigmented with orpiment. The painter handled the gildings exuberantly and used them to embellish certain garments, small details in interiors and architecture as well as simple bushes. Analytically, there were no differences traced between the mordant and the varnish suggesting the same mixture was used. Furthermore its coloring proved that the varnish was applied consciously to harmonize the appearance of the icon. With some exceptions most of the inscriptions were executed with an oil-rich yellow paint which displayed a wide ratio in pigment-volume-concentration. (Fig. 9). The paint must have been of high viscosity as the inscriptions maintained body; light refraction distinguishes the letters from the surrounding paint layers. In a final step some areas in the background were further differentiated with more or less transparent glazes (Fig. 10).

## ACKNOWLEDGEMENTS

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- 1 Argyratos, V., and Fragkaki, F., 'Ierusalimitika – a different kind of icon painting on canvas from the Holy Places. Historical data, materials, present state and conservation techniques' in Icons – Approaches to research, conservation, and ethical issues. ICOM Committee for Conservation, International Meeting handouts, ed. Stassinopoulos, S., Athens (2006) 46-47.

## FIGURES

- 1 proskynetarion after treatment, measurements: 145 x 240 cm
- 2 schematic drawing of stretching during painting process
- 3 cross section (P6)
- 4 schematic view of cross section
- 5 detail, 1st phase of under-drawing (IR reflectography)
- 6 the same detail as in Fig. 5 (VIS)
- 7 detail, 2nd phase of underdrawing
- 8 detail, white ground below oil gilding
- 9 detail, inscriptions with yellow paint
- 10 detail, blue glaze over inscription

Dipl.-Rest. Helena Dick  
lenadick@gmx.de

all photos and figures: Helena Dick