

Documentation
of Cultural Heritage▼ **Tondo, without attribution**

Producing a true-to-scale, congruent documentation for a comprehensive evaluation of three image plans of different spectral ranges, scale 1:1.

Images from the top:

- Colour photograph (Rüdiger Beck, Leipzig)
- Infrared image with OSIRIS camera (Kerstin Risse, Dresden Academy of Fine Arts)
- Radiograph (Asmus Steuerlein, Dresden)

Bottom right:

Congruent mounting of three three rectified images (fokus GmbH Leipzig).

Our service for you

For the preparation of the restoration of a work of art, to support its investigation and for the final documentation of conservational measures, photographic shots in different spectral ranges are usually required. In addition to digital photomaps in 1:1 scales, we produce congruent photomaps using raking light and macro shots, ultraviolet reflectography, ultraviolet fluorescence, infrared and X-rays and using historical photographs (also from images of our customers).

For the work on site, a digital medium format camera (Phase One) is used and specially modified cameras or digital camera backs for IR- and UV-photographs in combination with various filters are available. If necessary, radiographs can be implemented locally in collaboration with the photography expert, Asmus Steuerlein, Dresden, with a mobile X-ray machine on site. For lighting, both special

daylight lamps (cold light sources) for digital photography as well as a professional flash system and UV-lamps are available.

The processing of the photographic material starts with a comprehensive colour management process with gray and colour reference when shooting on location, the RAW development is processed over colour calibrated image processing units up to plotting with age-resistant pigment ink, or if necessary, on baryta for long-term archiving.

Before starting the work, the distortion of the image and the chromatic aberration are corrected. Matching algorithms with subpixel accuracy guarantee accurate rectification and mounting of detailed images to a total image in a high photographic resolution and without image interference.

◀ **Matthias Grünewald:****Stuppacher Madonna, panel painting**

Photomap 1:1,
mounting of 16 digital
medium format photographs.
Condition after restoration in 2012.

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Inside left:

Details of the rectified and
mounted mapping photographs
1:3 in 400 dpi resolution.

Pictures clockwise:

- image in raking light
before restoration 2012
- UV-fluorescence image
after restoration 2012
- condition 1926 after acceptance
of overpainting
- condition 1926 colour composite
image before restoration

Inside right:

Condition after restoration in 2012,
details of the rectified and
mounted measuring 1:1.

To support conservators in conducting inventories in museums and collections and for many other areas of responsibility, digital photomaps are produced as high-resolution, true-to-scale documentation of the present state.

fokus GmbH Leipzig accompanied the restoration of the panel painting of the Stuppacher Madonna in 2012 at the restoration studio of the State Office for Monuments of Baden-Württemberg with the creation of mapping basics in the form of photomaps.

The required work encompassed the photogrammetric retaking of the panel before, during and after completion of the restoration work in different spectral regions as well as the processing of various foreign and historical images of the restoration in 1926.

