

Documentation
of Wall Painting

Our service for you

In the documentation of interiors we have years of experience in analogue and digital photography. To accomplish complex tasks we have professional photo and lighting equipment. The measurement is carried out with a digital medium format camera (Phase One).

The latest lenses from super wide to telephoto are used in the process. A full-frame SLR with focal lengths 12 — 800 mm and a modified SLR for photographs in the ultraviolet and infrared spectral range are available for special applications.

For optimum illumination of wall surfaces, depending on the task, we use daylight lamps for digital photography, a professional flash system or UV lamps. All lenses make shots for calibration with correction parameters for distortion and chromatic aberration, with which the photos can be corrected. The images of various spectral regions can be edited in the same manner (image, rectification, orthographic projection). It results in true-to-scale, congruent documentation that can be coherently evaluated in the mapping.

For restoration documentation photomaps in 1:10 and larger scales and photographic quality are created. The result combines photographic documentation of the present state with exact geometry. For the coherent presentation of large wall surfaces, the images are rectified with projective tachymetrically measured control points on a coordinate reference and mounted onto a photo map.

Depending on the object geometry, the production of photomaps for walls is carried out by 2D image rectification or in case of apses, arches and coves by unwrapping onto the adjacent cylinder.

For strongly deformed walls or multiple curved surfaces (cross vaults) an orthogonal projection with digital surface model (3D laser scanning) is calculated on a plane or a cylinder.



**Creglingen, Herrgottskirche,
Christophorus fresco**
Large-scale documentation and
UV-fluorescence images, 2010.

▲ Photomap 1:10.

► Detail of photomap.



Wolfegg, Castle, Knight's Hall
Large-scale documentation and
UV-fluorescence images, 2010.

▲ Photomap 1:10.

◀ Detail of photomap, colour image.

◀ Detail of photomap,
UV-fluorescence image.





Nerkewitz, Church of Saint George
 Research Project for Early Medieval
 Mural painting in Thuringia, 2011–16.

▲
 Choir, view, 2013.

►
 Detail of photomap 1:10.

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 Above: Detail of photomap
 UV-fluorescence image.
 Below: Detail of photomap,
 raking light image.

▼
 Choir North Wall, plan 1:10.

