

# Digital Visualisations

**fokus**  
GmbH Leipzig

**Visualizations can be an important instrument** for decision-making and serve for the planning and the illustration of change during redevelopment or restoration of historic buildings or monuments. The type of procedure may vary and depends on the respective job.

In the simplest case various drafts can be visualized within the rectified photogram by picture montage, overlaps and colour variations. A visualization within the present environment is advisable for the reconstruction of destroyed buildings or parts thereof. Historical pictures can be used to this end. In that case the respective position of the camera at the time the picture was taken is calculated by photogram. Then a picture of the current situation is taken from the same position and the historical building view is inserted into this photograph of the present surrounding. ▷



► **Potsdam,**  
**Stately Wagon of Friedrich Wilhelm II**  
top: historical picture  
bottom: digital visualisation  
for reconstruction purposes





For complex reconstruction projects it is recommended to prepare a 3D photo model. A true-to-scale 3D CAD model is constructed with the use of existing planning documents, on-site geodetic measurements and photogrammetric evaluations. The degree of detail for the model depends on the project requirements. The picture information necessary for the photo model is copied from existing photomaps. In some cases historical photographs may also be used. The extended use of a true-to-scale 3D photo model is manifold. It can serve as documentation of the actual state or is used for the development of information systems, photo-realistic views, round tours and films for presentations. Additionally views of the 3D photo model with selected lines of sight can be computed and inserted into photographs of the current situation. The 3D photo model can reflect both the historical state as well as the current state of planning.



► **Hundisburg, Schloß, Großer Saal**  
*top: historical picture of the ceiling;  
 bottom: visualisation of the great hall  
 using colour slides (lead contractor:  
 Monumentalmalerei ZIKG München)*

1996	Potsdam	Marble Palace
1997	Berlin	Unter den Linden 1, former commandant's office
1998	Halberstadt	historic town hall
1999	Bad Muskau	bridge in Pückler Park
► 2000	Potsdam	coronation coach of Friedrich Wilhelm II.
2000	Radeberg	motorway bridge
2003	Leipzig	Mendelssohn-Memorial
2003	Berlin	Staatliche Museen zu Berlin, Museum of the Ancient Near East, Ishtar-Gate
2004	Uetz	Schwedenhäuschen
► 2006	Hundisburg	Castle, Großer Saal (Great Hall)

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**fokus GmbH Leipzig** is an engineering company providing special services in the fields of building surveying, photogram and image processing. Our scope of services also includes planning and documentation for architects, urban preservationists, building researchers and restorers. We furthermore develop and market industry-specific software.