

Dissertation Abstract

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Further information on the book, a three-page extended abstract and a preprint are available on my homepage under <http://www.schich.info> or if you prefer by mail under maximilian@schich.info. So far the book (and the 3-page abstract) are presented in German language, but make extensive use of visual argument.

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Reception and Transmission as Complex Networks.

THE CENSUS AND VISUAL DOCUMENTS ON THE IMPERIAL BATHS IN ROME.

My dissertation investigates phenomena concerning the migration of the images, i.e. processes of reception and transmission of visual information and meaning. While I prepared the thesis within the framework of art history and archaeology, its results are also relevant to many other fields. The given area of research complements text-focused citation research and proves particularly promising concerning the explication of implicit references between documents, as far as they contain any images.

With the analysis of two data sets — the Census of Antique Works of Art and Architecture Known in the Renaissance and a collection of Visual Documents on the Imperial Baths in Rome — I have shown, that the processes of reception and transmission of visual information constitute complex

networks in the sense of discrete mathematics: namely the bipartite network of reception and the directed network of transmission.

Furthermore I have shown, that the investigation of the bipartite network of reception, which is comparably easy to explicate, facilitates the reconstruction of implicit events of transmission. In order to achieve this goal I have developed a new method using scalable image matrices, for which I have applied for a patent with Max-Planck. Besides the reconstruction of transmission, the method also proves valuable concerning questions in any other diachronic, synchronic or achronic dimension of visual object data, both on a macroscopic and on a microscopic scale.