A surface texture library for photographic papers

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Surface texture is a vital attribute defining the appearance of a photographic paper. Texture impacts tonal range, rendering of detail, reflectance and conveys subtle qualitative information about the aesthetic intent of a photographer. During the 20th century, manufacturers created a huge diversity of characteristic and specialized textures. Identification of these textures can yield important information about the origin of a photographic print, including the date range of production and region of origin.

Assembled over the course of the past decade, a photographic paper library containing over 2,000 identified surface textures has been assembled using a simple, purpose-built system for capturing photomicrographs. Alone this library has limited application for the identification of unknown textures, though recent collaborations have produced distinct methods to effectively query the library and produce best matches.

Practical applications of this work are being tested as part of the Museum of Modern Art’s project to characterize a group of modernist photographs from its Thomas Walther collection. Funded by the Andrew W. Mellon Foundation, this project also affords an opportunity to test other methods to document surface texture including reflectance transformation imaging (RTI) and research is underway to develop query and retrieval mechanism for collections of these files. For the MoMA project, such files are made using a 4’ (apx.) diameter dome produced by Cultural Heritage Imaging and a prototype for microscopic capture. Assuming a positive outcome, the techniques used in these studies may have application for rapidly and inexpensively assembling texture libraries of other materials such as textiles, painted surfaces as well as accessing these collections through database query and retrieval techniques.

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