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Article: Identification of Chromogenic Colour Photographic Prints Brand by Spectral and Statistical Analysis (Abstract)
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Topics in Photographic Preservation, Volume 17
Page: 10
Compiler: Jessica Keister and Marie-Lou Beauchamp

Topics in Photographic Preservation is published biannually by the Photographic Materials Group (PMG) of the American Institute for Conservation (AIC). A membership benefit of the Photographic Materials Group, *Topics in Photographic Preservation* is primarily comprised of papers presented at PMG meetings and is intended to inform and educate conservation-related disciplines.

Identification of Chromogenic Color Photographic Prints Brand by Spectral and Statistical Analysis

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Presented at the PMG session of the 2016 AIC Annual Meeting in Montreal, Canada.

Recent scientific studies have been devoted to the identification and characterization of monochrome photographic processes starting from the earliest time of the history of photography since they were the most significant part of the collections and the main source of questions. However since the turn of the century similar concerns addressed to color photographs that are increasing in the collections, especially question of brand identification. Actually, being able to identify a color process, a brand or even a period of printing may inform us about the history of the artefact and also its sensitivity to the environment. It is well known that some brands and production times correspond to different thermal and light ageing behaviors. For instance some manufacturers have improved chromogenic color prints stability in the 1980's. Identifying a print manufacturer may help to define an exhibition strategy by referring to existing - or future - stability data. The name of the manufacturer is often printed on the back of color prints with sometimes the year of production, however date or names are sometimes lacking and many prints in museums are permanently mounted on a polymer or aluminum support without access to the information written on the back and no proper documentation neither. The aim of this study is to investigate the possibility of distinguishing materials from various manufacturers and periods by comparing their spectral signatures using non-invasive fiber optical reflectance spectroscopy (FORS) in the near infrared range. First, spectra have been collected on a limited number of chromogenic color photographs to create a database. Then we evaluated the rate of success in attributing a brand to a print by comparing it to known prints from the database by applying different statistical procedures.

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